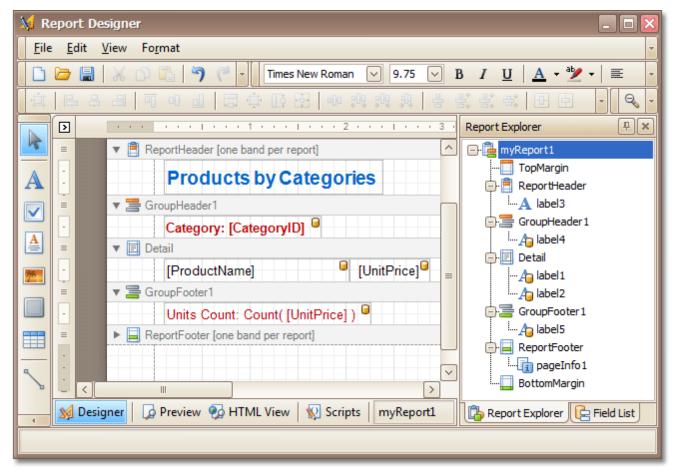
# **Report Designer**

This guide contains information about the basic principles of creating reports with Report Designer.

The Report Designer allows you to create new reports from scratch, bind them to data, and even pass them to another workstation and load them into another instance of the report designer. In addition to report editing capabilities, it allows you to display its Print Preview and send its output to a printer or export it to a file on disk.



The following sections are available in this guide.

- <u>Report Editing Basics</u>
- <u>Create Reports</u>
- Report Designer Reference
- <u>Report Wizard</u>
- Preview, Print and Export Reports

### Note

Some features described in this guide may differ from what you see in your application. This depends on your application vendor.

# **Report Editing Basics**

This section describes the most basic tasks you may encounter when initiating a report edit in the Report Designer.

The following documents are available in this section.

### **Report Editing Basics**

- Back Up the Current Layout Before Modifying It
- <u>Manually Update Report Output</u>
- <u>Change Element Layout in Your Report</u>
- <u>Change Fonts and Colors of Report Elements</u>
- Delete Report Elements

### **Providing Data**

- Add or Modify Static Information in Your Report
- Display Values from a Database (Bind Report Elements to Data)
- Use Mail Merge in Report Elements
- Add Calculated Fields to a Report
- Add Parameters to a Report

### **Data Representation**

- <u>Change Value Formatting of Report Elements</u>
- <u>Change or Apply Data Sorting to a Report</u>
- <u>Change or Apply Data Filtering to a Report</u>
- <u>Change or Apply Data Grouping to a Report</u>

### Additional Features

- Add Totals to a Report
- Add Page Numbers and System Information to a Report
- <u>Create or Modify Watermarks of a Report</u>

# Back Up the Current Layout Before Modifying It

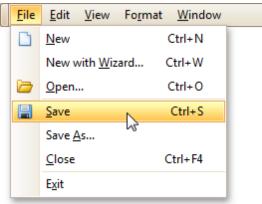
To guarantee that you will be able to revert your report to its original state, you need to create a *backup copy*. Then, you can apply changes without worrying that it will be hard to restore your report, in case something breaks.

• To save a copy of your report, in the <u>Main Menu</u>, select **File** | **Save As**.

<u>F</u> ile	<u>E</u> dit	<u>V</u> iew	Fo <u>r</u> mat	<u>W</u> indow	
	<u>N</u> ew			Ctrl+N	Γ
	New v	vith <u>W</u> iz	ard	Ctrl+W	L
Þ	<u>O</u> pen.			Ctrl+O	
	<u>S</u> ave			Ctrl+S	
	Save <u>A</u>	<u>\</u> s	N		
	<u>C</u> lose		5	Ctrl+F4	
	E <u>x</u> it				

Then, in the invoked standard **Save File** dialog, specify the folder and file name.

• To save the current layout of your report, in the Main Menu select **File** | **Save**, or press CTRL+S. In this case, the report will be saved in the application's current folder.



After your report is saved, its path is displayed in the Report Designer's title bar.



• To load a previously saved report, in the Main Menu, click **File** | **Open**, or press CTRL+O. The standard **Open File** dialog will allow you to locate and open report files.

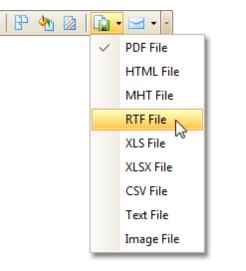
#### See Also

Change Element Layout in Your Report Delete Report Elements 184

# Manually Update Report Output

Sometimes you may need to simply update a couple of values in your report before printing it. In these cases, the simplest way to correct your report is to export it to an editable file (e.g. RTF), then use an appropriate editor tool to edit values and print your report.

To export a report, switch to the Preview Tab and click the arrow near the Export Document... button

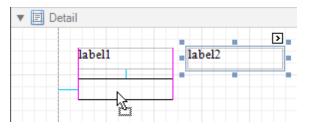


To learn more about report exporting, see Exporting from Print Preview.

# **Change Element Layout in Your Report**

To select a <u>control</u>, simply click it. To select the next control in tab order, press TAB. To select the previous control in tab order, click SHIFT + TAB.

Individual controls can be moved, using either mouse or keyboard.



They can be precisely aligned to each other using either *Snap Gird* or *Snap Lines*. For details on this, refer to <u>Controls Positioning</u>.

To resize a control using the mouse, select it, and then drag a rectangle drawn on its edge or corner.



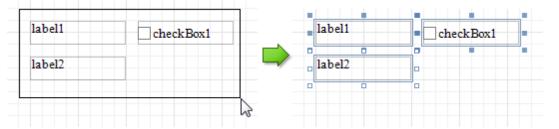
To resize a band, drag its header strip.

▼ 🗉 Detail >								
	-÷							

To resize an element using the keyboard, press SHIFT+ARROW or CTRL+SHIFT+ARROW.

To select multiple elements, do one of the following.

- Click elements while holding CTRL or SHIFT.
- Click on a blank space and drag the mouse to create a selection frame. When the mouse button is released, all controls within the selection frame's boundaries will be selected. In this case, the previous selection is cleared.



You can also easily align multiple controls or make them the same size, by utilizing the Layout Toolbar.

In addition, to copy, paste and delete controls simultaneously, you can place them within the Panel.

For more information, refer to Controls Positioning.

### See Also

<u>Change Fonts and Colors of Report Elements</u> <u>Delete Report Elements</u> 186

### **Change Fonts and Colors of Report Elements**

To change fonts and colors (as well as paddings, text alignment and other appearance properties) of a report <u>control</u> or <u>band</u>, select this element and do one of the following.

• Use the Formatting Toolbar.

Formatting Toolba	ar 🛛					-
Times New Roman	14	BI	<u>U</u> <u>A</u>	- 🎽 -	ΞΞ	3 8
A sample text	8 9 10 11 12 14 16					

• Use the <u>Property Grid</u>, where all appearance-related properties are located under the **Appearance** category.

	Property Grid		×
<b>D</b>	Label1 Label		~
A sample text	<b>₽</b> 2↓		
	Appearance		le 🗠
	Background Color	Transparent	
	Border Color	ControlText	=
	Border Width	1	
	Borders	None	
	+ Font	Times New Roman	ly
	Foreground Color	0, 0, 192	
	Formatting Rules	(Collection)	
	Padding	2, 2, 0, 0	
	\pm Style Priority	(Style Priority)	
	🕂 Styles	(Collection)	
	Text Alignment	Top Left	~
	Foreground Color Gets or sets the control's	foreground color.	

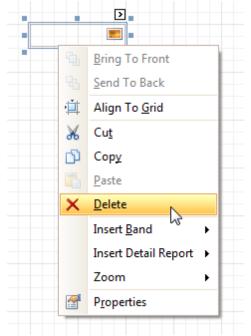
Note that the appearance settings of a band are applied to all controls contained within it.

When it's required to apply styles in bulk, we recommend using common *style templates*, which also can be stored in an external style sheet file, and applied to multiple reports. In addition, this allows you specify separate *odd/ even styles*, to improve your reports' readability. Another noteworthy option, is the capability to *conditionally* change the appearance of report elements based on a certain logical expression (e.g. if a control's value satisfies some rule). For more information, refer to <u>Styles and Conditional Formatting in Reports</u>.

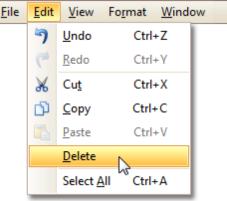
## **Delete Report Elements**

To delete a report element (<u>band</u> or <u>control</u>), select it in the <u>Design Panel</u> or <u>Report Explorer</u> (to select multiple elements, hold down SHIFT while selecting), and then do one of the following.

- Press DELETE.
- Right-click the report element, and in the invoked <u>Context Menu</u>, choose **Delete**.



• In the Main Menu, select Edit | Delete.



### 

You can cancel the operation by pressing CTRL+Z.

Note that certain elements cannot be deleted (such as the <u>Detail band</u>).

#### See Also

Change Element Layout in Your Report

# Add or Modify Static Information in Your Report

In a report, static and dynamic information is displayed using appropriate controls.

**Dynamic information** changes through a report, such as <u>values from a database</u> (which comprise the main report data) or <u>service information</u> (such as <u>current user name or page numbers</u>). Approaches to embed dynamic information to your report are detailed in the following document: <u>Display Values from a Database (Bind Report Elements to Data)</u>.

**Static information** is text or images that aren't obtained from a data source, and therefore don't change through the report, and don't depend on the current computer. Static information can be printed only once (e.g. in a <u>Report Header</u>), can repeat on each page (e.g. in a <u>Page Header</u>) or can repeat with every entry in your report's data source (a data-bound label, which is placed onto the <u>Detail band</u>).

	Report Explorer       ImpReport1       ImpReport2       ImpReport2       ImpReport2       ImpReport2       ImpReport2       ImpReport2       ImpReport2       ImpReport2       ImpReport2       ImpReport2
This item has been expired: Chai This item has been expired: Chang This item has been expired:	Leftall → Detall → A label2 → label1 → BottomMargin
Aniseed Syrup This item has been expired: Chef Anton's Cajun Seasoning This item has been expired: Chef Anton's Gumbo Mix This item has been expired: Grandma's Boysenberry Spread	

Static information can be either edited in-place, or loaded from an external file.

### **Change Static Information**

Text elements (e.g. <u>Labels</u> and <u>Rich Text Boxes</u>) allow in-place editing of their content. Simply double-click an element and activate the editor.



#### Note

For in-place editing, you also can utilize the Formatting Toolbar.

Another way to change a control's static information, is by clicking its <u>Smart Tag</u>. Then, the invoked actions list will contain a link (or, a button) allowing you to edit this control's content.

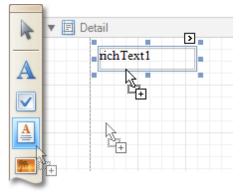
richText1	Rich Text Tasks Edit Text Clear	
	Data Binding (None)	
	Anchor Vertically None	
	Formatting Rules (Collection)	]
	Can Grow	

#### Load Static Information to Your Report

To load static information to your report from an external file, drop an appropriate control from the <u>Control Toolbox</u> (e.g. <u>Label</u>, <u>Rich Text Box</u> or <u>Picture Box</u>). After it is properly <u>positioned</u>, edit its content using the <u>Smart Tag</u>.

For instance, the following instructions describe how to display a rich text (a formatted text with embedded images) into your report.

1.Drop the <u>Rich Text</u> control from the <u>Toolbox</u> onto the <u>Detail band</u>.



2.To load content from an external RTF or TXT file, select the created control and click its Smart Tag. In the invoked actions list, click the **Load File...** link.

richText1	Rich Text Tasks	
	Edit Text	
	Clear	
	Load File	
	Data Binding (None)	$\checkmark$
	Anchor Vertically None	$\checkmark$
	Formatting Rules (Collection)	
	Can Grow	
	Can Shrink	

Then, in the invoked dialog, locate the required file, and click **Open**.

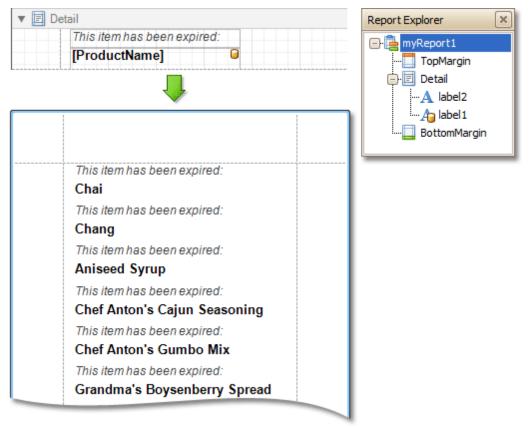
#### See Also

<u>Change Fonts and Colors of Report Elements</u> <u>Display Values from a Database (Bind Report Elements to Data)</u> <u>Use Mail Merge in Report Elements</u>

# **Display Values from a Database (Bind Report Elements to Data)**

Report controls can either display static information or dynamic data fetched from the bound database.

Data-bound controls are indicated by a yellow database icon in their top-right corner, both in the <u>Design Panel</u> and <u>Report Explorer</u>.



To embed dynamic information to a report, if this information is contained in the report's data source, this can easily be done using one of the following approaches.

- Using the Field List
- Using the Smart Tag
- Using the Property Grid

After a control is bound to data, you may wish to employ additional features, which are listed in the final section of this document.

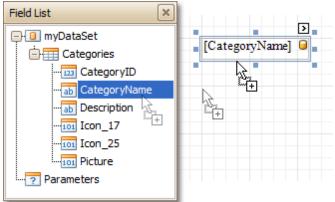
• <u>Special Capabilities</u>

### **Using the Field List**

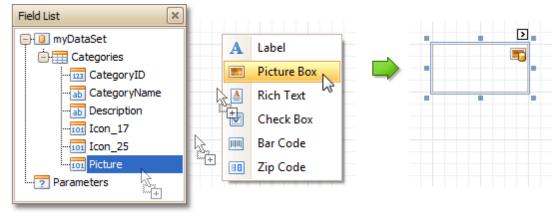
• To bind an existing report control to a data field, click the required field item in the <u>Field List</u>, and then drag and drop it onto the control. The yellow database icon inside it will indicate that it's been successfully bound.

Field List 🛛 🗶			
CategoryID CategoryID CategoryName Catego	label1		[CategoryName]

• To add a new data-bound control, simply drag the required data field from the Field List onto a report band. This will create a <u>Label</u> bound to this data field.

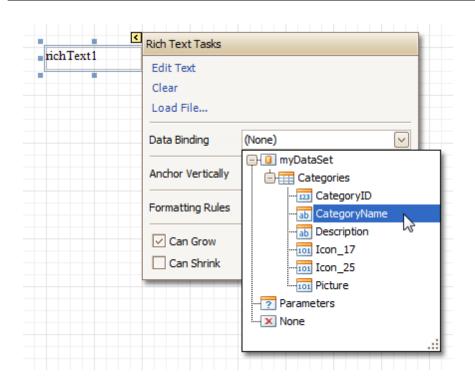


• A more flexible way to create data-bound elements is to right-click a Field List item, and then drag and drop it onto a report. This will invoke the <u>Context Menu</u>, where you can choose which control should represent your data, and it will be automatically created and bound to the selected data field.



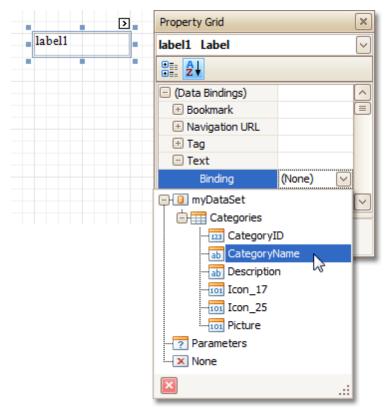
### Using the Smart Tag

Click a control's <u>Smart Tag</u>, and in the invoked actions list, expand the **Data Binding** drop-down list, and select the required data field.



### **Using the Property Grid**

Click a control to select it, and in the <u>Property Grid</u>, expand the **(Data Bindings)** branch that holds the bindable options. Specify a data field for the required attribute (e.g. **Text**).



### **Special Capabilities**

After a control is bound, you can apply formatting to its dynamic content (e.g. for it to be treated as currency, or date-time content). For details on this, refer to <u>Change Value Formatting of Report Elements</u>.

It is possible to make a control display a result of a summary function calculated across the data field to which it is bound. For details on this, refer to <u>Add Totals to a Report</u>.

Another noteworthy option is to combine both static and dynamic content within the same control (e.g. to append some text prefix or postfix to a value obtained from a database), or even bind a control to multiple data fields at one time. This is detailed in <u>Use Mail Merge in Report Elements</u>.

If it's required to perform some pre-calculations over the data field to which a control is bound, this can be done by creating a *calculated field*, and binding the control to it. This is detailed at <u>Add Calculated Fields to a Report</u>.

In turn, a calculated field may contain both dynamic and static *parameters*, which can be requested each time a report is being previewed. For more information, refer to <u>Add Parameters to a Report</u>.

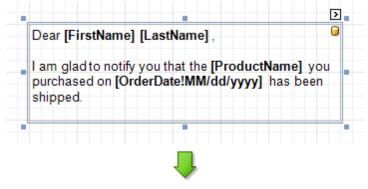
## Use Mail Merge in Report Elements

The *mail merge* feature allows you to combine both <u>static</u> and <u>dynamic</u> content within the same <u>control</u> (e.g. to append some text prefix or postfix to a value obtained from a database), or even bind a control to multiple data fields at one time.

Mail merge is available for the following controls.

- Bar Code
- Check Box
- Label
- <u>Rich Text</u>
- Table Cell
- Zip Code

To embed dynamic data into a control's static content, type in data field names surrounded by [square brackets].



Dear Nancy Davolio,

I am glad to notify you that the Chai you purchased on 09/20/2008 has been shipped.

To learn how *values formatting* can be applied to the embedded data fields (e.g. for them to be treated as *currency*, or *date-time* content), refer to <u>Change Value Formatting of Report Elements</u>.

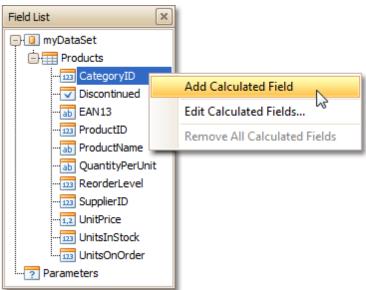
## Add Calculated Fields to a Report

This document demonstrates how to add a *calculated field* to a report. The main purpose of calculated fields is to perform pre-calculations (of virtually any level of complexity) over <u>data fields</u>. To learn how to easily perform simple calculations within a single data field, refer to <u>Add Totals to a Report</u>.

In the Report Designer, a calculated field is similar to an ordinary data field (e.g. you can bind controls to it, and group, sort and filter your report against it).

To add a calculated field to your report, follow the instructions below.

1.To create a calculated field, in the <u>Field List</u>, right-click any data member, and on the invoked menu, choose **Add Calculated Field**.



2. In the Field List, select the created field to show its properties in the <u>Property Grid</u>. Among these options, make sure to change the **Field Type** property to an appropriate value.

Pro	operty Grid	×
ca	culatedField1	Calculated Field 🛛 🖂
	₽	
	Behavior	<b>v</b>
	Data	<ul> <li>Image: A state</li> </ul>
	Data Member	Products
	Data Source	myDataSet
	Expression	
	Field Type	Float 🖂
	Design	<ul> <li>*</li> </ul>
	(Name)	calculatedField1
	eld Type pecifies the type o	f the value returned

3.Now, let's create an expression for the calculated field.

Click the ellipsis button in the **Expression** section, to invoke the **Expression Editor**. You can also invoke this dialog by right-clicking your calculated field within the Field List and selecting **Edit Expression...** 

Expression Editor		
[UnitPrice] * [UnitsOnOrder] + - × ÷ % Functions Operators Fields Constants Parameters	(…) = ≠ < ≤ Products Products Discontinued A EAN13 ProductID A ProductID A ProductID A ProductName A QuantityPerUnit A ReorderLevel A QUANTIPRICE A QUANTIPRIC	► ► ■ </td
		OK Cancel

Click **Fields** to see the field list. Double-click field names to add them to the expression string. Use the toolbar to add operators between field names.

### Note

Note that it's also possible to employ <u>parameters</u> in a calculated field's expression.

To close the dialog and save the expression, click **OK**.

4. Finally, drag the calculated field from the Field List onto the required <u>band</u>, just like an ordinary data field.

▼ 📕 PageHeader [one band per page]		Field List 🛛 🗙
Product Name Unit Price	Order Amount	🖃 📵 myDataSet 📃 🔼
▼	>	Products
[ProductName] [UnitPrice]	[calculatedField1]	
		- 🖽 CategoryID
	2	EAN13
	5. +	ProductID V

The report with a calculated field is now ready. Switch to the Preview Tab, and view the result.

Product Name	Unit Price	Order Amount
Chang	\$19.00	\$760.00
Aniseed Syrup	\$10.00	\$700.00
Queso Cabrales	\$21.00	\$630.00
Sir Rodney's Scones	\$10.00	\$400.00
Gorgonzola Telino	\$12.50	\$875.00
Mascarpone Fabioli	\$32.00	\$1280.00
Gravad lax	\$26.00	\$1300.00
poh Coffee	\$46.00	\$460.00
Røgede sild	\$9.50	\$665.00
Chocolade	\$12.75	\$892.50
Maxilaku	\$20.00	\$1200.00
Gnocchi di nonna Alice	\$38.00	\$380.00

### See Also

Add Parameters to a Report Change or Apply Data Filtering to a Report Change or Apply Data Grouping to a Report Change or Apply Data Sorting to a Report

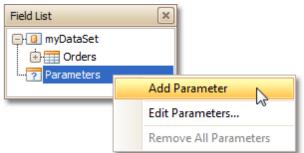
## Add Parameters to a Report

For your report, you can employ *parameters*, which can be requested each time the report is being previewed. And, based on specified values, the report will then being <u>filtered</u>. It's also possible to employ parameters in expressions of <u>calculated fields</u>.

In this example, we'll create two date-time parameters, to filter out orders which don't fall in the specified range, from the report.

To add parameters and filter your report based on their values, follow the steps below.

1. In the Field List window, right-click over the **Parameters** section and in the invoked menu, click **Add Parameter**.



Repeat this action to create the second parameter.

2.In the Field List, select the first parameter, and in the <u>Property Grid</u>, set its (Name) and Description. And make sure to set its Type to an appropriate value.

Then, repeat this step for the second parameter.

Field List	Property Grid	×	
📮 🔲 myDataSet	ToDate Parameter		
Orders     Parameters	₽. Z↓		
- FromDate	(Name) ToDate		
ToDate	Description To:		
	Type DateTime	2	
	Value		
	Visible Yes		
	••••	=	
	Туре		

Now, every time your report is previewed, you will be asked to specify two dates.

#### Note

In Print Preview, if a report's **Request Parameters** option is set to **Yes**, its document is not generated until you have submitted values of all visible parameters via the **Parameters** UI.

The following instructions explain how to use parameters to filter your report's data.

3. Click your report's <u>Smart Tag</u>, and in the invoked actions list, click the ellipsis button for the **Filter String** entry. Then, in the invoked **Filter String Editor**, construct an expression where a data field is compared with the created parameters. To access parameters, click the icon on the right until it turns into a question mark.

R	eport1* 🔟				
2		2 1 3 1			
	Report Tasks				
-	Design in Report Wizard Edit and Reorder Bands				
-	Data Source	myDataSet			
-	Data Member	Orders 🗸			
	Data Adapter	OrdersTableAdapter			
-	Filter String				
- - 1	FilterString Editor				
-	Visual Text				
·	And 🖸				
:	Urder Datej Is greater than or equal to://romDate; 😏 🕥				
2					
<u>-</u>					
		OK Cancel			
3	L				
-					
-		OK Cancel			

The complete filtering expression will then look like this.

FilterString Editor
Visual Text
And O [Order Date] Is greater than or equal to ?FromDate @ O [Order Date] Is less than or equal to ?ToDate @ O
OK Cancel

The parameterized report is now ready. Switch to the <u>Preview Tab</u>, and in the **Parameters** section, define the required values and click **Submit**.

2 8   🗁 릚   🖓	B 🔓 B 🕅 🔍	100% 🔍		4 d d 🔛	-
Parameters 🛛 🗐 🗙	· · ·				4
From: 1/1/1995					
To: 1/31/1995	01/02/95	10369	USA	\$195.68	_
Reset Submit	01/03/95	10370	Switzerland	\$1.17	
	01/03/95	10371	France	\$0.45	
	01/04/95	10372	Brazil	\$890.78	
	01/05/95	10373	Ireland	\$124.12	
	01/05/95	10374	Poland	\$3.94	
	01/06/95	10375	USA	\$20.12	
	01/09/95	10376	Canada	\$20.39	
	01/09/95	10377	UK	\$22.21	
	01/10/95	10378	Sweden	\$5.44	
	01/11/95	10379	Brazil	\$45.03	
	01/12/95	10380	Ireland	\$35.03	
	01/12/95	10381	Venezuela	\$7.99	
	01/13/95	10382	Austria	\$94.77	
	01/16/95	10383	UK	\$34.24	~
				>	
M Designer Designer	🥺 HTML View   😡 🤅	Scripts Pag	ge1 of1	Zoom Factor: 100%	6

### See Also

Add Calculated Fields to a Report Change or Apply Data Filtering to a Report

# **Change Value Formatting of Report Elements**

To apply value formatting for a <u>data-bound control</u>'s content (e.g. for it to be treated as currency, or date-time content), locate this control, click its <u>Smart Tag</u>, and in the invoked actions list, click the ellipsis button for the **Format String** entry.

Then, in the invoked format string editor, choose one of the predefined formatting styles, or specify a custom one.

	Label Tasks					
	Edit Text	Edit Text				
	Text	label 1				
	Data Binding	myDataSet - Products.UnitPric 🖂				
	Format String					
	Summary	None				
FormatString	Editor					
<u>C</u> ategory	Sample					
DateTime	\$100.00					
Number Percent						
Currency	Standard Typ	Standard Types Custom				
Special	\$0.00					
	\$0 c					
	c1					
	c2					
		OK Cancel				

To quit the dialog and apply the changes, click **OK**.

Similarly, when the <u>mail-merge</u> is employed for a control's dynamic content, to apply a value formatting to an embedded data field, select it in the in-place editor, and click the control's smart tag. Then, in the invoked actions list, specify the required format.

The [ProductName] has the following	Label Tasks	
price: [UnitPrice!\$0.00].	Data Binding	myDataSet - Products.UnitPric 🔽
	Format String	{0:\$0.00}
	Formatting Rules	(Collection)

Note that when a *summary function* is being applied to a control's dynamic content, value formatting is applied separately, via the **Summary Editor**, as described at <u>Add Totals to a Report</u>.

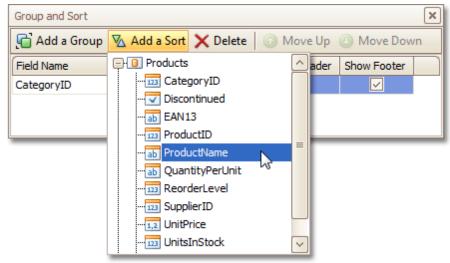
Independently from the general (or, summary) value formatting, you can specify a native XLSX format string, which is to be preserved when the report is being <u>exported</u> to XLSX. This can be done via a control's **XIsx Format String** property.

## Change or Apply Data Sorting to a Report

This document demonstrates how to sort a report's data. Note that as with data grouping, sorting can be performed only if a report is <u>bound to a data source</u>. In this example, we'll use the report created in the following tutorial: <u>Change or Apply Data Grouping to a Report</u>.

To sort records in a data-aware report, do the following.

1.Switch to the <u>Group and Sort Panel</u>, and click **Add a Sort**. In the invoked list, choose a data member across which the report is to be sorted.



Note that sorting across <u>calculated fields</u> is supported, as well.

2.To manage the sorting order (ascending or descending), use the **Sort Order** drop-down list. And, if multiple sorting criteria are specified, you can define the priority for each one, by selecting it in the Group and Sort Panel, and using the **Move Up** and **Move Down** buttons.

The sorting is now applied. Switch to the Preview Tab, and view the result.

Products by Categories	
Category: 1	
Chai	\$18.00
Chang	\$19.00
Chartreuse verte	\$18.00
Côte de Blaye	\$263.50
Guaraná Fantástica	\$4.50
Ipoh Coffee	\$46.00
Lakkalikööri	\$18.00
Laughing Lumberjack Lager	\$14.00
Outback Lager	\$15.00
Rhönbräu Klosterbier	\$7.75
Sasquatch Ale	\$14.00
Steeleye Stout	\$18.00
	\$455.75
Category: 2	
Aniseed Syrup	\$10.00
Chef Anton's Cajun Seasoning	\$22.00
Chef Anton's Gumbo Mix	\$21.35

### See Also

Change or Apply Data Grouping to a Report Change or Apply Data Filtering to a Report Add Calculated Fields to a Report Sort Groups by a Summary Function Result

# Change or Apply Data Filtering to a Report

For your report, you can specify a filtering expression (of virtually any level of complexity), to exclude excessive or undesired data.

To filter a report's data, click its <u>Smart Tag</u>, and in the invoked actions list, click the ellipsis button for the **Filter String** entry. Then, in the invoked **Filter String Editor**, construct an expression.

Report1* 🗵	
<b>N NOT THE REPORT OF THE REP</b>	
Report Tasks	
Design in Report Wizard	
Edit and Reorder Bands	
Data Source	myDataSet
Data Member	Orders 🗸
. Data Adapter	OrdersTableAdapter
Filter String	
· · · · · · · · · · · · · · · · · · ·	
FilterString Editor	
1 Visual Text	
And O	
- [Freight] Is greater than or equal to	500.0 / 0
[Order Date] Is greater than or equ	
2 [Ship Country] Is not blank ③	
[Customer ID] Is between 5 🖉 and	15 / 3
[calculated Field 1] Does not equal 8	
•	
	OK Cancel

In the Filter String Editor, you can either use the Visual expression builder, or specify the expression in Text.

FilterString Editor
Visual Text [Freight] >= 500.0m And [Order Date] >= ?FromDate And [Ship Country] Is Not Null And [Customer ID] Between('5', '15') And [calculated Field1] <> '8'
OK Cancel

Note that it is possible to embed parameters into the expression, and also request them each time a report is

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previewed.

To quit the dialog and save the changes, click  $\ensuremath{\textbf{OK}}$  .

### See Also

<u>Change or Apply Data Grouping to a Report</u> <u>Change or Apply Data Sorting to a Report</u>

## Change or Apply Data Grouping to a Report

This document demonstrates how to group a report's data. Note that data grouping can be performed only if a report is <u>bound to a data source</u>.

To group records in a report, do the following.

1. Create a new report and bind it to a data source. In this tutorial, we'll start with the following report.

▼ 📋 ReportHeader [one band per	report]
Products by Cate	gories
🔻 🗐 Detail	
[ProductName]	[UnitPrice]

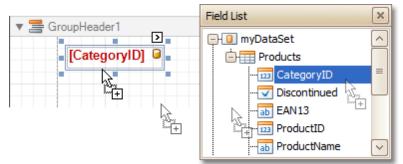
2.Now, switch to the <u>Group and Sort Panel</u>, and click **Add a Group**. In the invoked list, choose a data member across which the report is to be grouped. Note that grouping across <u>calculated fields</u> is supported, as well.

Group and Sort				×
🚰 Add a Group 🛚 🛚 Add a Sort	×	Delete	🕜 Move Up	Move Down
Products	^		Show Header	Show Footer
				·
ProductName	=			
1,2 UnitPrice				
	~			

If multiple groups are created, you can specify the priority for each group, by selecting it in the Group and Sort Panel, and using the **Move Up** and **Move Down** buttons.

3.After this, a <u>Group Header</u> band is added to the report, with the specified data member being set as its grouping criterion.

Now, it's only left to drop the corresponding item from the <u>Field List</u> onto this band, so that it's displayed as a header for each group.



If required, you also can apply <u>mail merge</u> to this label.

4. In addition, you can enable the corresponding Group Footer band, by checking the **Show Footer** option in the Group and Sort Panel.

Group and Sort			×		
🚰 Add a Group 🛛 Add a Sort 🗙 Delete 🛛 💿 Move Up 💿 Move Down					
Field Name	Sort Order	Show Header	Show Footer		
CategoryID	Ascending				
			5		

To manage the sorting order of the group's items (ascending or descending), use the **Sort Order** dropdown list.

5. Then, you can <u>calculate a total</u> across the group, by placing a <u>Label</u> onto this band, and specifying its **Summary** properties in the following way.

	Property Grid	×
GroupFooter1	label5 Label	$\sim$
Sum( [UnitPrice] )	€≣ <b>2</b> ↓	
	Summary	Group, Sum, {0:\$0.00}
	Running	Group 🗹
	Function	Sum
	Format String	{0:\$0.00}
	Ignore Null Values	No
	Running	
	Gets or sets a value spe which the arithmetic fur	ecifying a report area, for action is calculated.

Note also that *value formatting* is applied to a summary independently of the <u>general formatting</u>, and has a greater priority.

The report is now ready. Switch to the <u>Preview Tab</u>, and view the result.

Products by Categories	
Category: 1	
Guaraná Fantástica	\$4.50
Ipoh Coffee	\$46.00
Rhönbräu Klosterbier	\$7.75
	\$58.25
Category: 2	
Northwoods Cranberry Sauce	\$40.00
Vegie-spread	\$43.90
	\$83.90
Category: 3	
Teatime Chocolate Biscuits	\$9.20
Sir Rodney's Marmalade	\$81.00
Gumbär Gummibärchen	\$31.23
Schoggi Schokolade	\$43.90
Zaanse koeken	\$9.50
Tarte au sucre	\$49.30
	\$224.13

To learn how groups can be sorted against a summary function result, see <u>Sort Groups by a Summary Function</u> <u>Result</u>.

To learn how page numbers can be added to groups independently from the report's page numbers, refer to <u>Add</u> <u>Page Numbers for Groups</u>.

### See Also

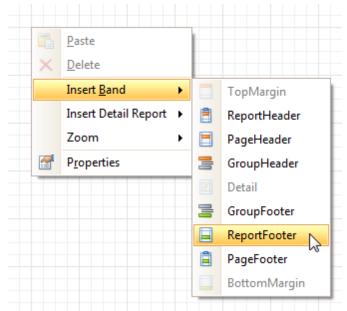
Sort Groups by a Summary Function Result Count the Number of Records in a Report or a Group Change or Apply Data Sorting to a Report Change or Apply Data Filtering to a Report Add Calculated Fields to a Report

### Add Totals to a Report

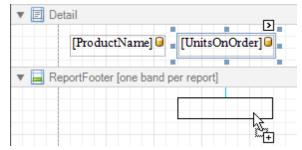
With Report Designer, you can force a <u>data-bound control</u> to calculate one of the standard summary functions ( **Average, Summary, Count, Running Summary, Percentage, Max** or **Min**).

To calculate summaries (totals) within a report, follow the instructions below.

1.To display the result at the bottom of a report, the <u>Report Footer</u> band should be present. To add it, right-click anywhere over the report's area and in the invoked <u>Context Menu</u>, select **Insert Band** | **ReportFooter**.



2.Click the field for which a summary will be calculated, to select it. Then, hold down CTRL and drag the field onto the Report Footer area, to create an exact copy of the <u>Label</u> that will display the summary.



### ☑Note

You can also create a new label for your total by simply dragging it from the Control Toolbox.

3.Now, select the newly created Label, click its <u>Smart Tag</u>, and in its actions list, click the ellipsis button for the **Summary** item. And, in the invoked **Summary Editor**, specify the summary options.

The following image shows an example of how you can set up your total. Note that the **Summary Running** option is set to **Report**, to ensure that all values from the specified data field are taken into account.

[UnitsOnOrder]			
Summary Editor	Text Data Binding Format String Summary	label1 myDataSet - Pr None	roducts.UnitsOn V
Bound field: Products.UnitsOnC Summary function: Sum Format string: Total Units: {0} Ignore null valu Summary Running None Page	es		5 <null> 7 -2 5 4 10 3 Total Units: 32</null>
			OK Cancel

#### ᢙNote

The **Ignore NULL values** option won't affect the result in this example, since NULL values are treated like zeros, by default. So, Sum won't change whether these values are taken into account or not. This option makes sense for functions like **Count** or **Average**, because the number of elements counted will depend on it.

Note also that *value formatting* is applied to a summary independently of the <u>general formatting</u>, and has a greater priority.

When calculating totals for <u>groups</u>, you can <u>sort the groups against a summary function result</u>. To save the settings and close the dialog, click **OK**.

Switch to the Preview Tab, and view the result.

Chang	40
Aniseed Syrup	70
Queso Cabrales	30
Sir Rodney's Scones	40
Gorgonzola Telino	70
Mascarpone Fabioli	40
Gravad lax	50
Ipoh Coffee	10
Røgede sild	70
Chocolade	70
Maxilaku	60
Gnocchi di nonna Alice	10
Wimmers gute Semmelknödel	80
Louisiana Hot Spiced Okra	100
Scottish Longbreads	10
Outback Lager	10
Longlife Tofu	20
Total	Units: 780

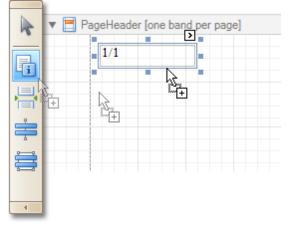
### See Also

<u>Change or Apply Data Filtering to a Report</u> <u>Change or Apply Data Grouping to a Report</u> <u>Change or Apply Data Sorting to a Report</u> <u>Sort Groups by a Summary Function Result</u>

# Add Page Numbers and System Information to a Report

This document describes how to insert *page numbers* or other system information (e.g. *current date and time, user name*, etc.) into a report.

Generally, this information is displayed within the <u>Page Header and Footer</u> or <u>Page Margin</u> bands. To add page numbers or system information to a report, locate the <u>Control Toolbox</u> and drag and drop the <u>Page Info</u> control.



Then, follow the instructions below for your specific task.

- Add Page Numbers
- Add System Date and Time
- Add the User Name

#### Add Page Numbers

1.Select the **Page Info** control, click its <u>Smart Tag</u>, and in the invoked actions list, expand the drop-down list for the **Page Information** entry.

1/1	Page Info Tasks	
	Page Informaton	"Current of Total" Page Numb 🖂
	Start Page Number	None
	Format	Page Number
	romac	"Current of Total" Page Numbers
	Running Band	Page Number (Roman Sowercase)
		Page Number (Roman, Uppercase)
	Anchor Vertically	Current Date and Time
		User Name
	Formatting Rules	(Collection) ····

Select whether to display only the page number (Latin or Roman - uppercase or lowercase), or the current page number with total pages.

2.To <u>format</u> the control's text, via its Smart Tag, invoked its actions list, and specify the required format (e. g. Page {0} of {1}).

Page 1 of 1	Page Info Tasks	
Tage FOFF	Page Informaton	"Current of Total" Page Numb 🖌
	Start Page Number	1
	Format	Page {0} of {1}
	Running Band	(none)
	Anchor Vertically	None
	Formatting Rules	(Collection)

3.Using the control's actions list, you also can specify the *starting page number*, and the *running band* (e.g. this option is available when there are <u>groups</u> in a report, and it's required to apply independent page numbering for them). For details on this, refer to <u>Add Page Numbers for Groups</u>.

The result is shown below.

Page 1 of 2	
Chai	\$18.00
Chang	\$19.00
Aniseed Syrup	\$10.00
Chef Anton's Cajun Seasoning	\$22.00
Chef Anton's Gumbo Mix	\$21.35
Grandma's Boysenberry Spread	\$25.00
Uncle Bob's Organic Dried Pears	\$30.00
Northwoods Cranberry Sauce	\$40.00
Mishi Kobe Niku	\$97.00

### Add System Date and Time

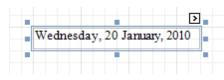
1.Select the **Page Info** control, click its <u>Smart Tag</u>, and in the invoked actions list, expand the drop-down list for the **Page Information** entry, and select **Current Date and Time**.

1/1	Page Info Tasks	
	Page Informaton	Current Date and Time
	Start Page Number	None
	Format	Page Number "Current of Total" Page Numbers
	Running Band	Page Number (Roman, Lowercase) Page Number (Roman, Uppercase)
	Anchor Vertically	Current Date and Time
	Formatting Rules	(Collection)

2.To <u>format</u> the control's text, via its Smart Tag, invoked its actions list, and specify the required format. You can either type it in the **Format** field, or, click its ellipsis button and use the **Format String Editor**.

W	ednesday, January	Page Info Tasks	
W	editesday, sandary	Page Informaton	Current Date and Time
		Start Page Number	1
		Format	{0:dddd, MMMM dd, yyyy}
	FormatString Ed	litor	
	<u>C</u> ategory	Sample	
	DateTime Number	Wednesday, Ja	nuary 20, 2010
	Percent Currency Special	Standard Types	Custom
	General	M/d/yyyy M/d/yy	
		MM/dd/yy MM/dd/yyyy	
		yy/MM/dd	
		yyyy-MM-dd dd-MMM-yy	
		dddd, MMMM dd,	уууу 🗸
			OK Cancel

The result is shown below.



Add the User Name

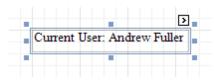
1.Select the **Page Info** control, click its <u>Smart Tag</u>, and in the invoked actions list, expand the drop-down list for the **Page Information** entry, and select **User Name**.

1/1	Page Info Tasks	
	Page Informaton	User Name
	Start Page Number	None
	Format	Page Number "Current of Total" Page Numbers
	Running Band	Page Number (Roman, Lowercase)
	Anchor Vertically	Page Number (Roman, Uppercase) Current Date and Time
	Formatting Rules	Collection
	Formatting Rules	(Collection)

2.To <u>format</u> the control's text, via its Smart Tag, invoke its actions list, and specify the required format (e. g. **Current User: {0}**).

Andrew Fuller	Page Info Tasks		
	Page Informaton	User Name	
	Start Page Number	1	
	Format	Current User: {0}	
	Running Band	(none)	
	Anchor Vertically	None	
	Formatting Rules	(Collection)	

The result is shown below.





Create or Modify Watermarks of a Report Add Page Numbers for Groups

# **Create or Modify Watermarks of a Report**

This document describes how to add a text *watermark* in a report, or turn a picture into a report's *background*. Note that watermarks are visible only in <u>Preview</u> and <u>HTML View</u> modes.

To create a new watermark in a report (or to modify the existing one), do the following.

1. Click the report's <u>Smart Tag</u>, and in its actions list, click the ellipsis button for the **Watermark** entry.

the second second second second		1.0.0		
Report Tasks				
Design in Report Wizard Edit and Reorder Bands				
Data Source myDataSet				
Data Member	Products	$\sim$		
Data Adapter	ProductsTableAdapter	$\sim$		
Filter String				
Print when Data Source is Empty				
Detail Print Count when Data Source is Empty	1	*		
Detail Print Count	0	* *		
Measure Units	Hundredths of an Inch	~		
Formatting Rules	(Collection)	•••		
Formatting Rule Sheet	(Collection)			
Style Sheet	(Collection)			
Watermark	(None)			

2. In the **Text** tab of the invoked **Watermark** dialog, define the required properties for the text watermark.

Watermark		
	Text Watermark	Picture Watermark
	Text: This is	a sample watermark
*	Direction: Forwa	rdDiagonal 🗸 Color:
retman	Font: Verda	na 🗸 Size: 36 🗸
le wat	🖂 Bole	d 🗸 Italic
ampt	Transparency (0-2	255): 100
This is a sample watermark	1 1 1 1	
<b>₹</b> ?	Position	Page Range
	🔿 In front	All  Pages 1-7,9
	<ol> <li>Behind</li> </ol>	Enter page numbers and/or page ranges separated by commas. For example: 1,3,5-12
Clear All		OK Cancel

3. Then, switch to the **Picture Watermark** tab, to load the image to be used as a watermark, and define its properties, such as Size mode, Alignment (vertical and horizontal), Tiling, Transparency, Page Range, etc.

Watermark	
	Text Watermark Picture Watermark
$\bigcirc \bigcirc \bigcirc \bigcirc \bigcirc$	Load image Size mode: Clip
	Horizontal alignment: Right
	Vertical alignment: Top
	✓ Tiling
and a	Transparency (0-255): 200
	Position Page Range
$(\mathcal{O} \mid (\mathcal{O} \mid (\mathcal{O} \mid \mathcal{O})))$	O In front O All O Pages 1-7,9
	Behind     Enter page numbers and/or page ranges     separated by commas. For example: 1,3,5-12
Clear All	OK Cancel

The report with watermark is now ready. Switch to the <u>Preview Tab</u>, and view the result.

A   🗁 🔚   8° 8 🕞 🖳   🖑	<li>&lt; </li>
Chai Guaraná Fantástica Steeleye Stout Chartreuse verte Laughing Lumbejad: Lager	Chang Sasquath Ale Côte de Blaye Ipoh Coffie Outback Lager
Rhönbräu Klos <del>terbier</del>	Lakkaliköön
Aniseed Syrup	Chef Anton's Caim Sessoning
Chef Anton's Gumbo Mix	Grandma's Boysenberry Spread
Northwoods Cranberry Sauce Gula Malacca	Genen Showu Sirop d'etable
Vegie-spread	Louisiana Fierv Hot Pepper Sauce
Louisiana Hot Spiced Okra	Griginal Frankfurter grüne Soße
Pavlova	Teatime Chocolate Bismits
Sir Rodney's Mannalade	Sir Rodney's Scones
NuNuCa Nuß-Nougat-Creme	Gumbär Gummibärchen
Schoggi Scholzlade	Zaanse koelen
Chocolade	Maxilalm
Valkoinen suldaa	Tarte au sucre
Scottish Longbreads	Queso Cabrales
Queso Manchego La Pastora	Gorgonzola Telino
Mascarpone Fabioli	Geitost
Raclette Courdavault	Camembert Herot
Gudbrandsdakost	Flotemysost
Mozzarella di Giovanni	Gustaf's Knädæbröd
M Designer	w 😡 Scripts Nothing 100%

### See Also

Add Page Numbers and System Information to a Report

## **Create Reports**

With the help of the Report Designer, you can edit existing reports, as well as create your own reports from scratch. The following sections contain tutorials providing step-by-step instructions on both basic and advanced report customization.

• Basic Operations

The topics in this section cover the basics of working with reports in the Report Designer.

<u>Report Types</u>

The tutorials in this section provide you detailed instructions on how to create reports of different types with the Report Designer.

- <u>Styles and Conditional Formatting in Reports</u> The topics of this section cover appearance-related information about the Report Designer.
- <u>Report Navigation</u> The tutorials of this section cover the navigation-related features of the Report Designer.
- <u>Miscellaneous Report Management Capabilities</u> The topics of this section cover the Report Designer features that don't fall into other categories.

# **Basic Operations**

The topics in this section cover the basics of working with reports in the Report Designer.

This section consists of the following topics.

- Create a New Report
- Bind a Report to Data
- <u>Controls Positioning</u>
- <u>Change Measurement Units for a Report</u>
- <u>Change Page Settings for a Report</u>

### **Create a New Report**

This topic explains how to create a new blank report in the Report Designer. Before you start, make sure to <u>back</u> up the current report.

To create a new report, do one of the following.

#### **Create a New Blank Report**

In the Main Menu, click File and then New (or press CTRL+N).

<u>F</u> ile	<u>E</u> dit <u>V</u> iew Fo <u>r</u> ma	at <u>W</u> indow
	New	Ctrl+N
	New with <u>W</u> izard <sup>l</sup>	v Ctrl+W
Þ	<u>O</u> pen	Ctrl+O
	<u>S</u> ave	Ctrl+S
	Save <u>A</u> s	
	<u>C</u> lose	Ctrl+F4
	Exit	

The Main Toolbar contains a button ( $\Box$ ) with the same function.

If there is another report already loaded in the designer, you may be prompted whether it should be saved before it is replaced with a newly created report.

By default, the created report contains three <u>bands</u> - <u>Page Header and Footer</u>, and the <u>Detail band</u>.

#### **Create a New Report Using the Report Wizard**

In the Main Menu, click File and then New with Wizard... (or press CTRL+W).

<u>F</u> ile	<u>E</u> dit <u>V</u> iew	Fo <u>r</u> mat <u>W</u> indow	
	New	Ctrl+N	
	New with <u>W</u> i		
6	Open	ر Ctrl+0	
H	Save	Ctrl+S	
	Save <u>A</u> s		
	<u>C</u> lose	Ctrl+F4	
	Exit		

For more information about this option, refer to Report Wizard.

#### See Also

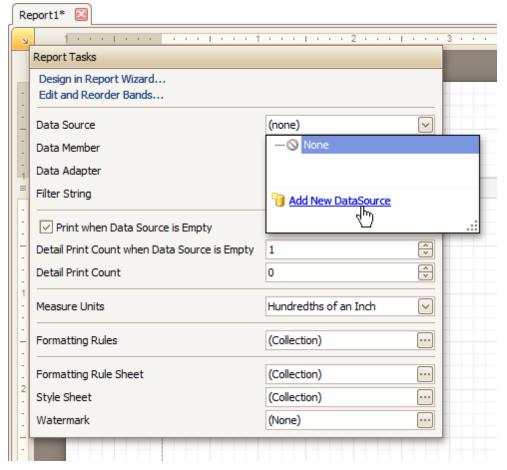
<u>Controls Positioning</u> <u>Change Measurement Units for a Report</u> <u>Change Page Settings for a Report</u> <u>Bind a Report to Data</u>

### Bind a Report to Data

The Report Designer is primarily designed to work with *data-aware reports*, meaning that a report obtains its general (*dynamic*) data from an external *data source* (most types of which are supported). This document describes how a newly created report can be *bound* to a data source.

To bind a report to data, do the following.

- 1. Create a new report.
- 2.Click its <u>Smart Tag</u>, and in the invoked actions list, expand the **Data Source** drop-down list and click **Add New DataSource**.



3. In the first page of the invoked **Report Wizard**, define the *dataset* name, which will then appear in the <u>Field List</u>.

Report Wizard		
Create a new dataset The dataset contains the tables and c	olumns you need for your report.	
In order to create a new dataset, first give	; it a name:	
Cancel	< Back Next >	Finish

4.On the next page, specify the database to be used. If it is absent in the drop-down selector containing existing connections, click the **New Connection...** button.

Report Wizard
Choose a data connection From this information you'll be able to choose the tables and columns for your dataset in the next step.
Choose from the list of data connections currently in the Wizard, or add a new connection if the one you want is not listed.
Which connection should the wizard use?
New Connection     Connection String:
Cancel < Back Next > Finish

Then, in the invoked **Data Link Properties** dialog, explore the **Provider** tab, to choose your data provider.

💽 Data Link Properties 💽
Provider Connection Advanced All
Select the data you want to connect to:
OLE DB Provider(s)
Microsoft Jet 4.0 OLE DB Provider
Microsoft Office 12.0 Access Database Engine OLE DB Provide Microsoft OLE DB Provider for Analysis Services 9.0 Microsoft OLE DB Provider For Data Mining Services Microsoft OLE DB Provider for Indexing Service Microsoft OLE DB Provider for ODBC Drivers Microsoft OLE DB Provider for OLAP Services 8.0 Microsoft OLE DB Provider for Oracle
۲
Next >>
OK Cancel Help

Then, switch to the **Connection** tab, and specify the path to your data source.

🛒 Data Link Properties 🛛 🔀
Provider Connection Advanced All
Specify the following to connect to Access data:
1. Select or enter a database name:
C:\Databases\nwind.mdb
2. Enter information to log on to the database:
User name: Admin
Password:
Blank password Allow saving password
Test Connection
OK Cancel Help

To quit the dialog and apply the changes, click **OK**. Click **Next**, to proceed to the following page.

5.On the next page, select *data members* (*tables* or *views*) from your database. Note that if you choose several tables (e.g. to create a <u>master-detail report</u>), the Report Designer creates a *data relationship* between them (if possible).

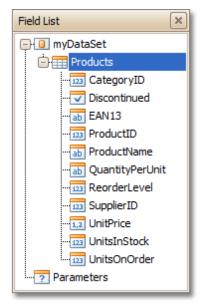
Report Wizard		
Choose the table or view The table or view you choose det your report.	termines which columns will be available in	
What item do you want to access?		
Available item(s):	Selected item:	
Tables     Categories     Customers     EmployeeCustomers     Employees     Order Details     Orders     Shippers     Suppliers     Views	Products	
Cance	cel < Back Next > Finish	2

To accomplish data source creation, click Finish.

After performing the steps above, the report's **Data Source**, **Data Member** and **Data Adapter** properties are defined.

<ul> <li>The end there is present to end the</li> </ul>	1 1 <b>2</b>	$1 \rightarrow \infty$
Report Tasks		
Design in Report Wizard		
Edit and Reorder Bands		
Data Source	myDataSet	$\checkmark$
Data Member	Products	$\checkmark$
Data Adapter	ProductsTableAdapter	$\checkmark$
Filter String		•••
Print when Data Source is Empty		
Detail Print Count when Data Source is Empty	1	^ ~
Detail Print Count	0	÷
Measure Units	Hundredths of an Inch	$\checkmark$
Formatting Rules	(Collection)	
Formatting Rule Sheet	(Collection)	•••
	(Collection)	•••
Style Sheet		

And, the Field List reflects the structure of the report's data source.



This means that the report has been successfully bound to the data.

To learn how <u>report controls</u> can be assigned to *data fields*, refer to <u>Display Values from a Database (Bind Report</u> <u>Elements to Data</u>).

# **Controls Positioning**

This document describes how to easily construct professional looking reports, by precisely aligning their elements to each other. For this, the two following facilities are introduced in the Report Designer.

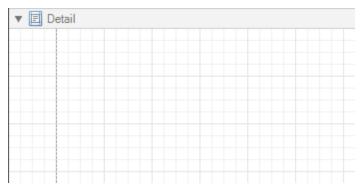
- <u>Snap Grid</u>
- Snap Lines

You can choose which mode to use for controls alignment within your report, by setting its **Snapping Mode**.

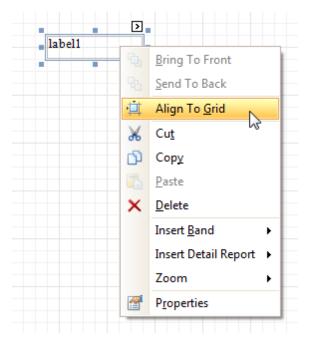
Pro	Property Grid				
m	yReport1 Report	$\checkmark$			
	₽				
	Draw the Grid	Yes 🔨			
	Row Count for Preview	0			
	Snap Grid Size	12.5			
	Snap to Grid	Yes			
	Snapping Mode	Snap Lines 🛛 🗸 🗸			
-		Snap Lines			
Snapping Mode Snap to Grid					
	pecifies the mode in which re happed to each other, when				

### Snap Grid

When a report is being designed in the <u>Design Panel</u>, it is lined up by the **Snap Grid**. This helps to establish the distance between report elements, and to precisely align them to each other.



To quickly align a control to the report's Snap Grid, right click the control, and in the invoked <u>Context Menu</u>, click **Align To Grid**.



You can choose whether the Snap Grid should be visible, by selecting your report, and setting the **Draw the Grid** option in the <u>Property Grid</u>.

Pr	operty Grid	×
m	yReport1 Report	$\sim$
	Ź↓	
	Draw the Grid	Yes 🔽 🔿
	Row Count for Preview	0
	Snap Grid Size	12.5
	Snap to Grid	Yes
	Snapping Mode	Snap to Grid 🛛 🗸
G	raw the Grid ets or sets a value indicatin <u>c</u> rid at design time.	g whether to draw the

You also can adjust the **Snap Grid Size**, which is measured in the <u>measurement units</u> set for your report.

The **Snap to Grid** option specifies whether controls are snapped to the Grid when they are moved as usual (with no additional keys being hold down). When the **Snap to Grid** option is enabled, the default move behavior works in the following way.

- For controls to be aligned to the Snap Grid while being moved:
  - Using the keyboard: move them using the ARROW keys.
  - Using the mouse: move them as usual.
- For controls to ignore the Snap Grid while being moved:
  - Using the keyboard: move them using ARROW keys while hold down CTRL.
  - Using the mouse: move them while hold down ALT.

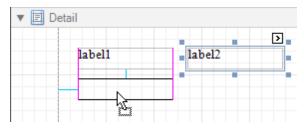
Disabling the **Snap to Grid** option swaps the default manipulation to its opposite (you should press CTRL or ALT, to enable the Grid snapping).

#### Snap Lines

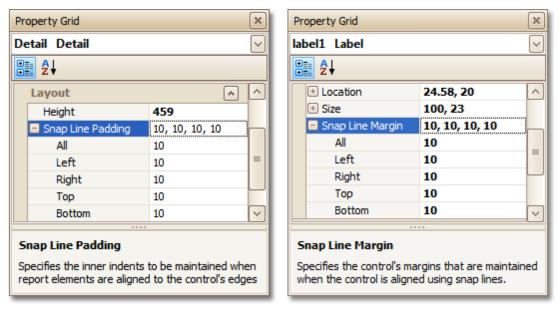
Instead of the Snap Grid for control positioning and alignment, you can utilize the **Snap Lines**. These are guide

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lines appearing when a control is being moved, and indicating the distance to other report elements (bands and controls).



For each report element, you can modify its default Snap Line spacing (*paddings* for bands and <u>Panel</u>, and *margins* for other controls) using the Property Grid.



To learn how to manage the position of multiple controls at one time, refer to <u>Change Element Layout in Your</u> <u>Report</u>.

#### See Also

<u>Change Measurement Units for a Report</u> <u>Change Page Settings for a Report</u>

# **Change Measurement Units for a Report**

For your report, you can choose its global **Measure Units**, which can be either **Hundredths of an Inch**, or **Tenths of a Millimeter**.

This can be specified either using the report's Smart Tag ...

<ul> <li>The explored second second</li> </ul>	(1) (1) (2) (2) (3)	
Report Tasks		
Design in Report Wizard		
Edit and Reorder Bands		
Data Source		
Data Member		
Data Adapter		
Filter String		
Print when Data Source is Empty		
Detail Print Count when Data Source is Empty	1	~
Detail Print Count	0	*
Measure Units	Hundredths of an Inch	
	Hundredths of an Inch	
Formatting Rules	Tenths of a Millimeter	
Formatting Rule Sheet	(Collection)	
Style Sheet	(Collection)	•••
Watermark	(None)	•••

... or via the Property Grid.

Property Grid	×
myReport1 Report	$\checkmark$
Ê≣ 2↓	
Behavior	A 1
+ Export Options	(Export Options)
Measure Units	Hundredths of an Inch 🛛 🗸
	Hundredths of an Inch 🛛 🗮
Measure Units	Tenths of a Millimeter
Gets or sets the unit of me	asurement for the report.

This defines the basic measurement unit for all the unit-related options of a report and its <u>bands</u> and <u>controls</u> (such as *location*, *size*, *border width*, etc.). And, this determines the measurement unit of the report's <u>Snap Grid</u>.

#### See Also

Controls Positioning Change Page Settings for a Report 232

## **Change Page Settings for a Report**

In the Report Designer, page settings of a report can be specified in one of two ways. The first approach forces the default printer settings to be used when the report is printed, while the other one enables you to alter page settings independently.

### Using settings of the default printer

For the orientation, margins and paper size, you can specify a requirement that applies the corresponding printer settings instead of the report's. In this instance, the page properties in the <u>Property Grid</u> are disabled and displayed as grayed out. This may be useful when the report is printed in several places with different printers and printer settings.

Pr	operty Grid		×
m	yReport1 Report		$\checkmark$
	₽↓		
	Page Settings	•	
	Landscape	(Default)	
	Margins	(Default)	
	Page Height	(Default)	
	Page Width	(Default)	
	Paper Kind	(Default)	=
	Paper Name	(Default)	
	Printer Name		
	Using Settings of the Default Printer	(Using Printer Settings)	
	Use Landscape	Yes	
	Use Margins	Yes	
	Use Paper Kind	Yes	
U	sing Settings of the Default Printer		
	ets a value that specifies which of the de sed when printing an XtraReport.	fault printer's settings should be	2

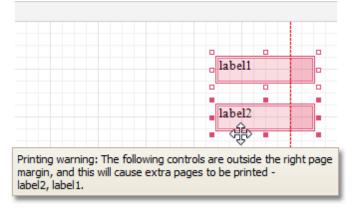
#### • Specify the report's page settings

While designing the report, you can specify the page settings via the Property Grid:

nyReport1 Report		~
â∎ â↓		
Page Settings		^
Landscape	No	
+ Margins	100, 49, 100, 100	L
Page Height	1100	
Page Width	850	
Paper Kind	Letter	=
Paper Name		
Printer Name		
Using Settings of the Default Printer	(Using Printer Settings)	
Use Landscape	No	
Use Margins	No	
Use Paper Kind	No	~
		-

You can set the page orientation and modify the margins. The margin values are expressed in the report's <u>measurement units</u>. You can select from the predefined paper sizes (**Paper Kind** property), choose **Custom** and create your own paper size, or select one which is already defined for this printer (**Paper Name** property).

These settings affect the layout of the report's design surface. After their modification, you may notice red warning marks, indicating that the controls go beyond the page width. These warnings can be switched off by setting the **Show Printing Warnings** property of the report to **No**.



#### • Modify the settings in Preview Tab

The report's <u>Preview Tab</u> toolbar has a corresponding button that enables you to modify the page settings. Clicking this button invokes the **Page Setup** dialog, which allows you to adjust the page layout before printing or exporting, and select the printer.

) 🗁 🗐 占' 🕹	Page Setup
Page Setup	
Paper	Productive configuration       Productive conf
Size: Let	ter 🔹
Source: Aut	tomatically Select 🔹
Orientation	Margins (inches)
Portrait	Left: 0.49 Right: 1
Landscape	Top: 1 Bottom: 1
	OK Cancel

The margins can also be set visually by dragging the dashed lines in the Preview Tab as needed. To change the measurement units shown in the margins tooltips, customize the report's **Measure Units** property.

Top Margi	in: 0.35 "
Chang	\$19.00
Aniseed Syrup	\$10.00
Queso Cabrales	\$21.00
Sir Rodney's Scones	\$10.00
Gorgonzola Telino	\$12.50
Mascarpone Fabioli	\$32.00

### Measure Units = Hundredths of an Inch

Measure Units = Tenths of a Millimeter

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+	
Chang	Top Margin: 14 mm \$19.00
Aniseed Syrup	\$10.00
Queso Cabrales	\$21.00
Sir Rodney's Scon	es \$10.00
Gorgonzola Telino	\$12.50
Mascarpone Fabio	oli \$32.00

To learn about other options available for a report, refer to Report Settings.

#### See Also

<u>Controls Positioning</u> <u>Change Measurement Units for a Report</u>

# **Report Types**

The tutorials in this section provide you detailed instructions on how to create reports of different types with the Report Designer.

Choose a report type from the following table.

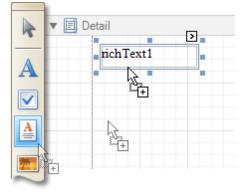


### Static Report

This tutorial describes the steps to create a *static report*, which means that the report will not be bound to a data source. In this example, we will create a simple one-page announcement to be repeated 20 times in a report.

To create a static report, do the following.

- 1. Create a new report.
- 2. From the <u>Control Toolbox</u>, drop the <u>Rich Text</u> control onto the <u>Detail band</u>.



3.Select the created control and click its <u>Smart Tag</u>. In the invoked actions list, click the **Load File...** context link.

	Rich Text Tasks	
richText1	Edit Text Clear Load File	
	Data Binding	(None)
	Anchor Vertically	None
	Formatting Rules	(Collection)
	Can Grow	

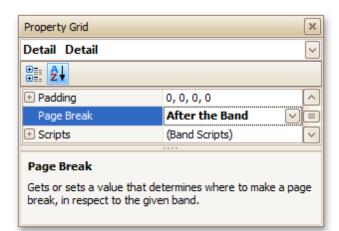
In the invoked dialog, define the path to an RTF or TXT file containing a text of the announcement, and click **Open**.

#### Note

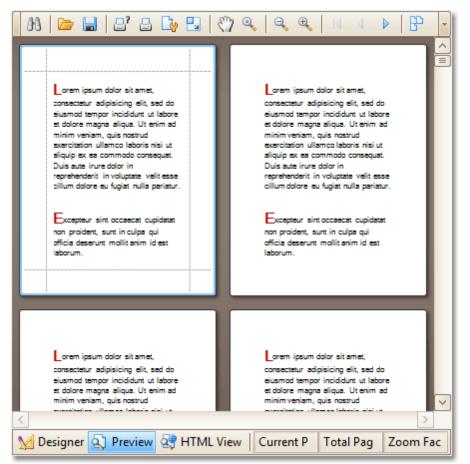
Note that you can perform additional text formatting using the Formatting Toolbar.

4. To repeat the created report 20 times, select the Detail band and in the <u>Property Grid</u> set its **Repeat Count when Data Source is Empty** property to **20**.

And, to make the announcement print on separate pages, set the band's **Page Break** property to **After the Band**.



The static report is now ready. Switch to the Preview Tab, and view the result.



#### See Also

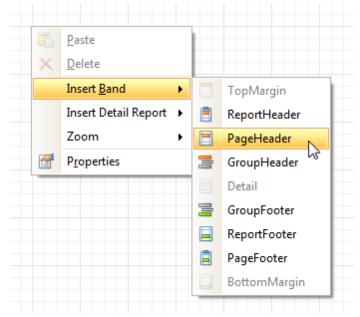
<u>Table Report</u> <u>Label Report</u> <u>Multi-Column Report</u>

### Table Report

This tutorial describes the steps to create a *table report*, which means that the report's data is arranged into a table-like layout. This feature should not be confused with the <u>master-detail report</u> or <u>cross-tab report</u>.

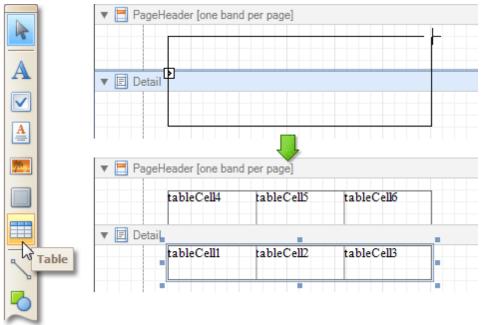
To create a table report, follow the steps below.

- 1. Create a new report.
- 2. Bind the report to a data source.
- 3.To add a <u>Page Header</u> to the report, right-click anywhere on the report's surface, and in the invoked <u>Context Menu</u>, choose **Insert Band** | **Page Header**.



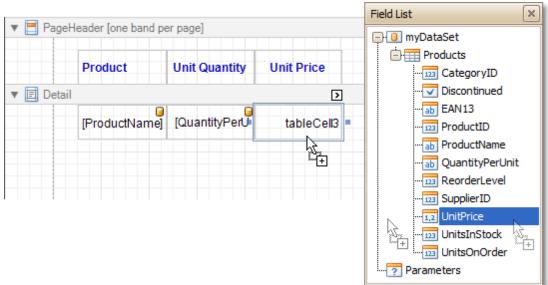
4.Now, add two Table controls to the report's Page Header and Detail band.

To do this, in the <u>Toolbox</u>, click the **Table** icon. Then, in the Page Header's content area, click and hold down the left mouse button while dragging the mouse cursor across the Detail band.



As a result, two tables are created. One will be used as a header, and the other one - for the report's detail information.

5. Type the headers into the upper table's cells, and bind the corresponding cells in the detail section to



the appropriate data fields. This can be done by simply dropping these fields from the  $\underline{\text{Field List}}$  onto the cells.

6.Finally, you can customize various properties of the tables, to improve their appearance. For example, using the <u>Property Grid</u> you can define their **Borders**, as well as **Background Color**. To customize the cells' text options, use the <u>Formatting Toolbar</u>.

A noteworthy feature is the capability to specify <u>odd-even styles</u> for the detail table.

The table report is now ready. Switch to the <u>Preview Tab</u>, and view the result.

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Product	Unit Quantity	Unit Price
Chai	10 boxes x 20 bags	\$18.00
Chang	24 - 12 oz bottles	\$19.00
Aniseed Syrup	12 - 550 ml bottles	\$10.00
Chef Anton's Cajun Seasoning	48 - 6 oz jars	\$22.00
Chef Anton's Gumbo Mix	36 boxes	\$21.35
Grandma's Boysenberry Spread	12 - 8 oz jars	\$25.00
Uncle Bob's Organic Dried Pears	12 - 1 lb pkgs.	\$30.00
Northwoods Cranberry Sauce	12 - 12 oz jars	\$40.00
Mishi Kobe Niku	18 - 500 g pkgs.	\$97.00
Ikura	12 - 200 ml jars	\$31.00
Queso Cabrales	1 kg pkg.	\$21.00
Queso Manchego La Pastora	10 - 500 g pkgs.	\$38.00
Konbu	2 kg box	\$6.00
Tofu	40 - 100 g pkgs.	\$23.25

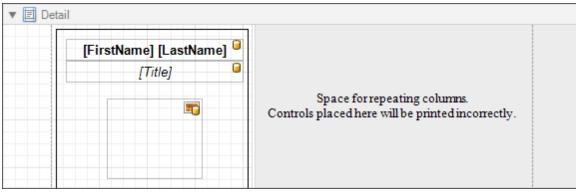
See Also Multi-Column Report

## Label Report

This tutorial describes the steps to create a *label report* containing employee badges, using the <u>Report Wizard</u>.

To create a label report, do the following.

- 1. In the Main Menu, select File and click New with Wizard... (or press CTRL+W).
- 2.Next, the Wizard will guide you through the process of creating a label report. For detailed instructions on the wizard's steps, refer to <u>Label Report Wizard</u>.
- 3. <u>Bind the report to a data source</u> containing information about employees.
- 4. Finally, drop the required fields from the Field List onto the available Detail band's area, and customize their layout.



Note that you can employ the mail merge, to combine multiple data fields within the same control.

The label report is now ready. Switch to the <u>Preview Tab</u>, and view the result.

Nancy Davolio Sales Representative	Andrew Fuller Vice President, Sales	Janet Leverling Sales Representative
Margaret Peacock Sales Representative	Steven Buchanan Sales Manager	Michael Suyama Sales Representative
Robert King	Laura Callahan	Anne Dodsworth
Sales Representative	Inside Sales Coordinator	Sales Representative

See Also

<u>Static Report</u> <u>Table Report</u> <u>Multi-Column Report</u>

# Master-Detail Report (Detail Report Bands)

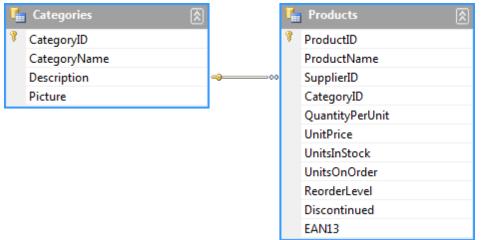
This tutorial describes the steps to create a *master-detail report* (or, *invoice report*) with hierarchically linked data, using the <u>Detail Report band</u>.

To create a master-detail report using the Detail Report band, do the following.

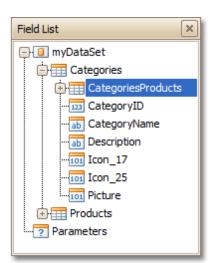
- 1. Create a new report.
- 2.<u>Bind the report to a data source</u>. And, on the <u>Reports Wizard</u>'s last page, select the required data tables, and click **Finish**.

Report Wizard			
Choose the table or view The table or view you choos your report.	se determines whic	h columns will be available in	
What item do you want to acce	ss?		
Available item(s):		Selected item:	
Tables Customers Customers EmployeeCustomers Crder Details Crders Shippers Suppliers Views		Products         Categories	
	Cancel	< Back Next >	Finish

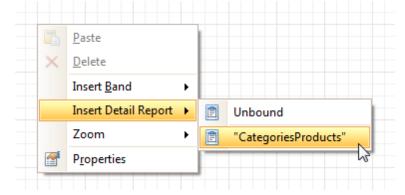
If possible, the Report Wizard will automatically create the *data relationship* (e.g. by the common key field) between the selected tables.



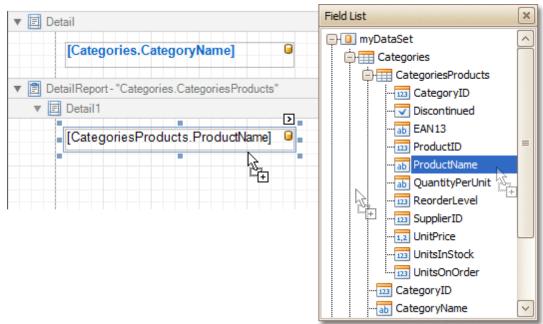
Then, if the relation is successfully created, you'll see the corresponding node in the Field List.



3.Now, to add a Detail Report band, right-click anywhere on the report's surface, and in the invoked <u>Context Menu</u>, point to **Insert Detail Report**. When the report's data source contains a data relationship, it is displayed in the Context Menu.



4.Then, drop the required data fields from the Field List onto the corresponding bands. As for the Detail Report band, note that you should drop items from the *relation node* (in this example it is the **Categories Products** section), or there will be incorrect output in the report.



The master-detail report is now ready. Switch to the Preview Tab, and view the result.

Cá Ipi Cá Na Vá Si Gi Sa Ta Dá	everages ôte de Blaye oh Coffee ondiments orthwoods Cranberry Sauce egie-spread onfections ir Rodney's Marmalade umbär Gummibärchen
Ip Ca Na Ve Si Gi Sa Ta Da	oh Coffee ondiments orthwoods Cranberry Sauce egie-spread onfections ir Rodney's Marmalade
No Ve Si Gi So Ta De	orthwoods Cranberry Sauce egie-spread onfections ir Rodney's Marmalade
Ve Si Gi So Ta De	egie-spread onfections ir Rodney's Marmalade
Si Gi So Ta Da	ir Rodney's Marmalade
Gi Sc Ta Da	-
So Ta Da	umbar Gummibarchen
Ta Da	
	choggi Schokolade arte au sucre
Q	airy Products
	ueso Manchego La Pastora
	ascarpone Fabioli
	aclette Courdavault
	amembert Pierrot
	udbrandsdalsost
M	ozzarella di Giovanni

.

See Also

Parameterized Report

### **Multi-Column Report**

This tutorial describes the steps to create a *multi-column report*, meaning that each page of the report document is laid out in a specified number of columns.

To demonstrate the multi-column feature, we'll use a report with grouping, similar the one created in the following tutorial: <u>Change or Apply Data Grouping to a Report</u>.

1.Select the <u>Detail band</u>, and in the <u>Property Grid</u>, expand the **Multi-Column Options** section.

First, set the required **Mode**. It determines whether the number of columns is manually specified, or it depends on the fixed column width.

Property Grid	×
Detail Detail	V
₽≣ <b>2</b> ↓	
Multi-Column Options	(Multi-Column Options)
Column Count	1
Column Spacing	0
Column Width	0
Direction	First Down, then Across
Mode	None 🛛 🗸
	None
Mode	Use Column Count
Gets or sets the mode in v	wł Use Column Width 너子
be printed.	

2. Then, if you've chosen to **Use Column Count**, set the **Column Count** to **2**, and **Column Spacing** to **10**. The **Direction** determines the order in which records of the same group are processed.

Property Grid	×
Detail Detail	$\sim$
₽. <b>2</b> ↓	
Multi-Column Options	(Multi-Column Options)
Column Count	2
Column Spacing	10
Column Width	0
Direction	First Down, then Across 🛛 🖂
Mode	First Down, then Across
	First Across, then Down
Direction	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
Gets or sets the direction i a page when a multicolum	in which a detail band is printed on n is enabled.

3.Now, on the Detail band's surface a grey area appears, delimiting the available column's width. Adjust the controls width, so that they fit within the effective borders.

▼	
[ProductName]	itPrice] Space for repeating columns. Controls placed here will be printed incorrectly.

The multi-column report is now ready. Switch to the Preview Tab, and view the result.

Category: 1			
Chai	\$18.00	Chang	\$19.00
Sasquatch Ale	\$14.00	Steeleye Stout	\$18.00
Côte de Blaye	\$263.50	Chartreuse verte	\$18.00
poh Coffee	\$46.00	Laughing Lumberjack Lager	\$14.00
Outback Lager	\$15.00	Lakkalikööri	\$18.00
Category: 2			
Aniseed Syrup	\$10.00	Chef Anton's Cajun Seasoning	\$22.00
Chef Anton's Gumbo Mix	\$21.35	Northwoods Cranberry Sauce	\$40.00
Genen Shouyu	\$15.50	Gula Malacca	\$19.45
irop d'érable	\$28.50	Vegie-spread	\$43.90
Category: 3			
Pavlova	\$17.45	Sir Rodney's Marmalade	\$81.00
Sir Rodney's Scones	\$10.00	NuNuCa Nuß-Nougat-Creme	\$14.00
Gumbär Gummibärdhen	\$31.23	Schoggi Schokolade	\$43.90
Chocolade	\$12.75	Maxilaku	\$20.00
/alkoinen sukkaa	\$16.25	Tarte au sucre	\$49.30
Scottish Longbreads	\$12.50		

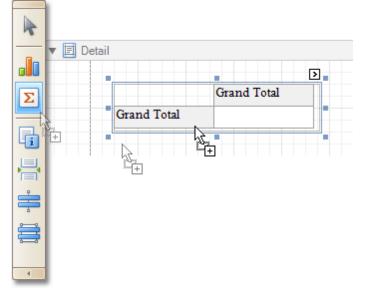
See Also Label Report

### **Cross-Tab Report**

This tutorial describes the steps to create a *cross-tab report* using a <u>Pivot Grid</u> control. This feature should not be confused with the <u>master-detail report</u> or <u>table report</u>.

To create a cross-tab report, do the following.

- 1. Create a new report.
- 2.Drop the <u>Pivot Grid</u> control from the <u>Toolbox</u> onto the report's <u>Detail band</u>.



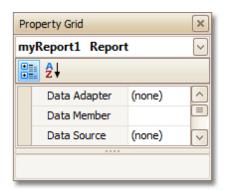
3.To bind the pivot grid to a data source, click its <u>Smart Tag</u>, and in the invoked actions list, expand the **Data Source** drop-down selector and click **Add New DataSource**.

		Pivot Grid Tasks	Pivot Grid Tasks					
Grand Total	Grand Total	Data Source	(none)					
Grand Total		Data Member	····· 🚫 None					
		Data Adapter						
		OLAP Connection String						
		Formatting Rules	Minimized Add New DataSource					
		Field Area for a New Field	Row Area					
		Add Field to Area Run Designer						

The invoked **Report Wizard** will guide you through the process of assigning a data source to the grid. For detailed instructions on the Wizard's steps, refer to <u>Bind a Report to Data</u>, as this process is similar.

#### Note

Note that after these steps, the <u>report</u>'s **Data Source** property must be set to **None**.



Otherwise, the grid will be blank at the preview and repeated as many times as there are records in the data source.

4. After the dataset is created, it is assigned to the grid's **Data Source** property. Its **Data Member** property defines from which table or view of your dataset the grid obtains its data. And, the **Data Adapter** property is auto-defined, as well.

So once again, click the grid's Smart Tag, and in the invoked actions list, click the **Run Designer...** link.

Grand Total	Grand Total	Data Source	myDataSet	~
Grand Total		Data Member	SalesPerson	$\checkmark$
		Data Adapter	SalesPersonTableAdapter	$\checkmark$
		OLAP Connection String		
		Formatting Rules	(Collection)	
		Field Area for a New Field Add Field to Area	Row Area	~
		Run Designer		

5. In the invoked Property Editor, click Retrieve Fields.

💀 Property Editor	🖂 🖂 🖂 🖂 🖂 🖂 🖂
Main 🔨	Fields 😰
Fields	Add     Insert     Remove     Retrieve Fields     >>       XRPivotGrid Fields (12)     Image: Add the second secon
Layout	fieldCountry         fieldDiscount         fieldExtendedPrice          fieldFirstName          fieldLastName <lasi< td="">         fieldOrderDate &lt;</lasi<>
Þ	fieldOrderID <order< td="">       Data         (2) You can add and delete XRPivotGrid fields and modify their settings.         Image: Contract of the setting set</order<>

6.Then, switch to the **Layout** section in the navigation bar on the left.

Drag and drop the required fields to the Row Fields, Column Fields and Data Items areas.

💀 Property Editor	
Main	Layout 🥹
	Coad Layout Show fields selector
Fields	Grid Preview Load Data from XML
	Discount First Name Last Name Order Date Order ID Unit Price
Layout	Quantity Extended Price Country  Sales Person
Printing V	Grand Total
Printing 🕑	Category N
	Grand Total \$0.00 \$0.00
	Modify the XRPivotGrid's layout (sorting settings, field arrangement) and click the Apply button to apply the modifications to the current XRPivotGrid. You can also
	save the layout to an XML file (this can be loaded and applied to other views at
Þ	Explorer style

Click **Apply** and close the editor.

7. In the last step, you can set your report's **Vertical Content Splitting** option to **Smart**. This will split the grid's columns precisely by their borders in the Print Preview.

Pro	operty Grid		×
my	yReport1 Report		$\sim$
	₽↓		
	Show Margin Lines in Preview	Yes	<u>^</u>
	Vertical Content Splitting	Smart	
	Visible	Yes	$\sim$
-			

The cross-tab report is now ready. Switch to the Preview Tab, and view the result.

Discount Quantity	First Name Extended P		st Name	Order Date Country			Unit Price		
		UK							
				Anne Dods	sworth			Michael Suyama	
Category N	ame Pro	duct i	Name	Quantity		Exte	nded Price	Quantity	Extended Price
Beverages	Ch	Bİ 🛛			35		\$544.50	96	\$1,551.60
	Ch	ang		30			\$494.00	110	\$1,805.00
	Ch	artreu	se verte		10		\$180.00	151	\$2,389.50
	Cô	te de l	Blaye		57		\$14,624.25		
	Gu	araná	Fantástica		73		\$276.30	131	\$525.60
	Ipo	h Coi	ffee						
	Lal	ckalik	ööri		73		\$977.58	55	\$751.50
	La	ighin	g Lumberja						
	Ou	tback	Lager	51			\$744.00	36	\$540.00
	Rh	önbrä	u Klosterb	i 110		\$833.12		129	\$948.60
Sasquatch Ale Steeleye Stout			10		\$112.00	30	\$420.00		
		70			\$856.80	40	\$518.40		
Beverages Total			519		\$19,642.55	778	\$9,450.20		
Condiment	s An	Aniseed Syrup			74		\$740.00	20	\$180.00
	Ch	ef An	ton's Caju	4				6	\$132.00
	Ch	ef An	ton's Gum					4	\$85.40
	Ge	ien S	houyu					12	\$176.70
	Gra	ndma	's Boyseni		50		\$1,187.50		
	Gu	Gula Malacca		falacca			\$906.39	70	\$1,087.52
	Lo	isian	a Fiery Ho		40		\$842.00	20	\$421.00
	Lo	isian	a Hot Spic		60		\$693.60		
	No	rthwo	ods Cranb		70		\$2,680.00		
	Ori	ginal	Frankfurte		53		\$575.25	63	\$802.75
	Sin	op d'é	rable		4		\$114.00	50	\$1,368.00
		gie-sp	read		80		\$2,386.80	9	\$395.10
Condiments Total					493		\$10,125.54	254	\$4,648.47

### See Also

Master-Detail Report (Detail Report Bands)

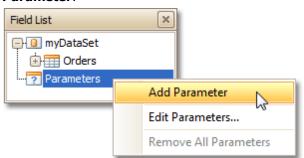
## **Parameterized Report**

This tutorial describes the steps to create a report with parameters. In this example, we'll create two date-time parameters, to filter out orders which don't fall in the specified range, from the report.

First, create a report and bind it to a data source.

To add parameters and filter your report based on their values, follow the steps below.

1. In the <u>Field List</u> window, right-click over the **Parameters** section and in the invoked menu, click **Add Parameter**.



Repeat this action to create the second parameter.

2.In the Field List, select the first parameter, and in the <u>Property Grid</u>, set its (Name) and Description. And make sure to set its Type to an appropriate value.

Then, repeat this step for the second parameter.

Field List 🛛 🗙	Property Grid 🛛 🗙
myDataSet     myDataSet     Orders     Parameters     FromDate     O ToDate	ToDate Parameter
	₽≣ <mark>2</mark> ↓
	(Name) ToDate
	Description To:
	Type DateTime 🕑
	Value
	Visible Yes
	Туре

Now, every time your report is previewed, you will be asked to specify two dates.

### Note

In Print Preview, if a report's **Request Parameters** option is set to **Yes**, its document is not generated until you have submitted values of all visible parameters via the **Parameters** UI.

The following instructions explain how to use parameters to filter your report's data.

3. Click your report's <u>Smart Tag</u>, and in the invoked actions list, click the ellipsis button for the **Filter String** entry. Then, in the invoked **Filter String Editor**, construct an expression where a data field is compared with the created parameters. To access parameters, click the icon on the right until it turns into a question mark.

Re	Report1* 🔟						
к	<u>v</u>						
	Report Tasks						
-	Design in Report Wizard Edit and Reorder Bands						
-	Data Source	myDataSet					
-	Data Member	Orders 🗸					
-	Data Adapter	OrdersTableAdapter					
-	Filter String						
	FilterString Editor						
1	Visual Text						
-	And O						
-	[Order Date] Is greater than or equal to [FromDate]						
2							
-							
-							
-	OK Cancel						
3							
-							

The complete filtering expression will then look like this.

FilterString Editor
Visual Text
And O [Order Date] Is greater than or equal to ?FromDate @ O [Order Date] Is less than or equal to ?ToDate @ O
OK Cancel

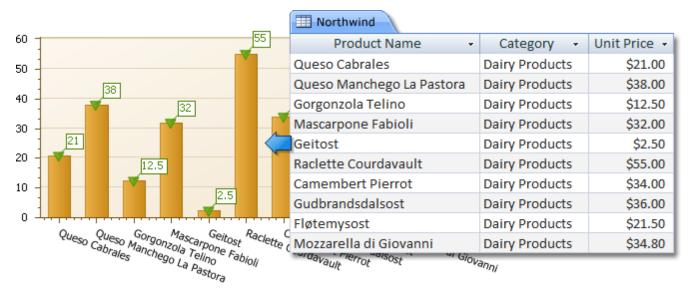
The parameterized report is now ready. Switch to the <u>Preview Tab</u>, and in the **Parameters** section, define the required values and click **Submit**.

1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	y 🖪   🖑 🔍	্ 100%	✓ 🔍 🖂	4 🕨 🕅 🗄	۲_
Parameters P×	1				
From: 1/1/1995					
To: 1/31/1995 🗸	01/02/95	10369	USA	\$195.68	
Reset Submit	01/03/95	10370	Switzerland	\$1.17	=
	01/03/95	10371	France	\$0.45	
	01/04/95	10372	Brazil	\$890.78	
	01/05/95	10373	Ireland	\$124.12	
	01/05/95	10374	Poland	\$3.94	
	01/06/95	10375	USA	\$20.12	
	01/09/95	10376	Canada	\$20.39	
	01/09/95	10377	UK	\$22.21	
	01/10/95	10378	Sweden	\$5.44	
	01/11/95	10379	Brazil	\$45.03	
	01/12/95	10380	Ireland	\$35.03	
	01/12/95	10381	Venezuela	\$7.99	
	01/13/95	10382	Austria	\$94.77	
	01/16/95	10383	UK	\$34.24	
<hr/>				[	>
刘 Designer 🛛 🔀 Preview 🤣 H	ITML View 🛛 😡 S	cripts Pag	ge1 of 1	Zoom Factor: 10	00%

## **Chart with Static Series**

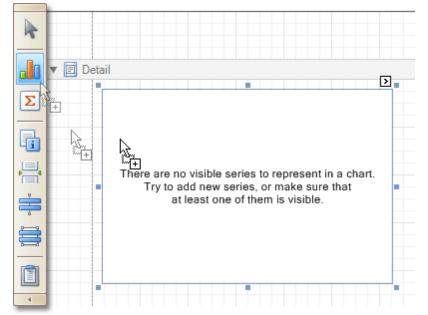
This document describes how to create a report with a <u>Chart</u> control bound to data, so that a particular *series* has its own *data source*, and other settings. To simplify the example, both series obtain their data from the same data source. However, different data sources can be used for different series, if necessary.

This example describes how to construct a chart of products and their prices for a chosen category.



To adjust a Chart by manually creating its series, do the following.

- 1. Create a new report.
- 2.Drop the <u>Chart</u> control from the <u>Toolbox</u> onto the report's <u>Detail band</u>.



Note that after you drop the Chart, the <u>Chart Wizard</u> may be invoked (if its "Show wizard every time a new chart is added" option is enabled). In this example, we don't need to use the Wizard, so click **Cancel** to close its window.

3.To bind the Chart to a data source, click its <u>Smart Tag</u>. In the invoked actions list, expand the **Data Source** drop-down selector, and click **Add New DataSource**.

	Chart Tasks
<ul> <li>There are no visible series to represent in a chart.</li> <li>Try to add new series, or make sure that at least one of them is visible.</li> </ul>	Data Source (none)
	Run Wizard    Series    Annotations    Palettes    Save    Load

The invoked connection Wizard will guide you through the process of assigning a data source to the Chart. For detailed instructions on the Wizard's steps, refer to <u>Bind a Report to Data</u>, as this process is similar.

### ☑Note

Note that after these steps, the report's **Data Source** property must be set to **None**.

Pr	Property Grid				
m	myReport1 Report 🛛 🗸				
	₽				
	Data Adapter	(none)	^		
	Data Member				
	Data Source	(none)	~		

Otherwise, the Chart will be blank when previewed, and repeated as many times as there are records in the data source.

4. After the dataset is created, it is assigned to the Chart's **Data Source** property. Its **Data Member** property defines from which table or view of your dataset the Chart obtains its data. And, the **Data Adapter** property is auto-defined, as well.

So once again, click the Chart's Smart Tag, and in the invoked actions list, click the **Series...** link.

	Chart Tasks	
	Data Source	myDataSet 🗸
	Data Member	Products 🗸
There are no visible series to represent in a chart. Try to add new series, or make sure that at least one of them is visible.	Data Adapter	ProductsTableAdapter
	Formatting Rules	(Collection)
	Run Wizard <u>Series</u> Annota Palettes	
	Save Load	

5.Now, in the invoked **Series Collection Editor**, create a *series* of the required *view type* (e.g. Bar). Then, switch to the **Properties** tab at the right of the editor's window, and assign the existing data set

object to the **Data Source** property of the series. And, assign the required data fields to the **Argument Data Member** and **Value Data Member** properties, which determine the coordinates for series points.

Series Collection Editor												
<u>ııl</u> Series 1	~	P	oints Properties									
Series 2		Ŧ	Appearance									
	<b>2</b>	🗄 Behavior										
		Ξ	Data									
			Argument Data Member	Products.ProductName								
			Data Filters	(Collection)								
			Data Source	myDataSet 😽								
			E								Summary Function	
					Value Data Members	(Collection)						
				Value	Products.UnitPrice							
		_	Elements									
Add Copy Remove		Ð	Misc									
				Close								
				.::								

In addition, you can filter the series data. To do this, click the ellipsis button for its **Data Filters** property, and in the invoked dialog, create and adjust the filtering criteria.

Data Filter (	ollection Edit	or		
And	Or	E	Misc	
	<u> </u>		Column Name	Products.CategoryID
DataFilter			Condition	Equal
			Data Type	System.Int32
			Value	4
Add	Remove			Close

To save the changes and quit the dialog, click Close.

Then, back in the **Series Collection Editor**, click **Copy**, to create a similar series, but change its **View** to **Point**.

6. Finally, to improve your Chart's appearance, you can make the following adjustments.

- Remove the Chart's legend, as it shows the same data for both series. To do this, click the Legend, and in the <u>Property Grid</u>, set its **Visible** property to **No**.

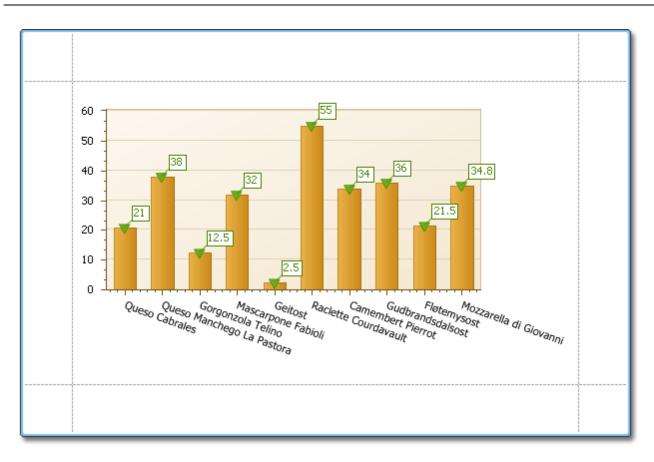
- The point labels for Series1 are unnecessary, so select the label and set its Visible property to No.

- Customize the appearance of the Series2 markers (e.g. replace the default circle with the upside-down triangle by the **View.Point Marker Options.Kind** property and set its **Size** to **12**).

Rotate the X-axis labels for better readability. To do this, select the AxisX item in the chart by mouse click, and adjust properties for its labels (via the Label property). For instance, if the Angle property is 20 and the Antialiasing property is set to Yes, the labels look neat.

If required, it is possible to customize many other properties for the Chart, which are not described here.

The chart is now ready. Switch to the Preview Tab, and view the result.

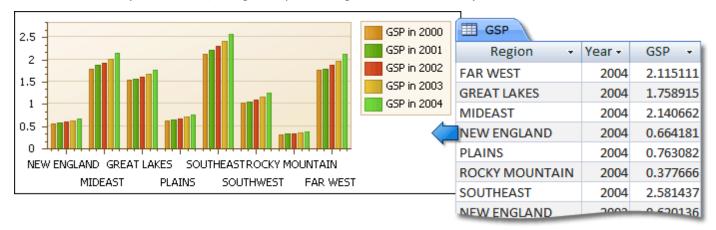


#### See Also

Chart with Dynamic Series

## **Chart with Dynamic Series**

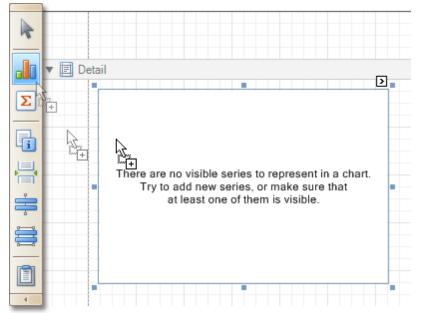
This document describes how to create a report with a <u>Chart</u> control bound to data, so that all series are autocreated based on a common *template*, which specifies universal options for all series. This is possible when the data for all series (their names, along with points' arguments and values) are stored in the same *data table*.



Note that in this scenario, the view type, and certain other settings, will be the same for all series.

To adjust a Chart with automatically created series, do the following.

- 1. Create a new report.
- 2. Drop the Chart control from the Toolbox onto the report's Detail band.



Note that after you drop the Chart, the <u>Chart Wizard</u> may be invoked (if its "Show wizard every time a new chart is added" option is enabled). In this example, we don't need to use the Wizard, so click **Cancel** to close its window.

3.To bind the Chart to a data source, click its <u>Smart Tag</u>. In the invoked actions list, expand the **Data Source** drop-down selector, and click **Add New DataSource**.

262

• • • • • • • • • • • • • • • • • • •	Chart Tasks	
<ul> <li>There are no visible series to represent in a chart.</li> <li>Try to add new series, or make sure that at least one of them is visible.</li> </ul>	Data Source (none) V Data Member None Data Adapter Formatting Rules Add New DataSource	
	Series Annotations Palettes Save Load	

The invoked connection Wizard will guide you through the process of assigning a data source to the Chart. For detailed instructions on the Wizard's steps, refer to <u>Bind a Report to Data</u>, as this process is similar.

### ☑Note

Note that after these steps, the report's **Data Source** property must be set to **None**.

Pr	Property Grid				
m	myReport1 Report 🛛 🗸				
	₽				
	Data Adapter	(none)	^		
	Data Member				
	Data Source	(none)	~		

Otherwise, the Chart will be blank when previewed, and repeated as many times as there are records in the data source.

4. After the dataset is created, it is assigned to the Chart's **Data Source** property. Its **Data Member** property defines from which table or view of your dataset the Chart obtains its data. And, the **Data Adapter** property is auto-defined, as well.

Now, to specify the data field which should provide data for the series names (so that a new series is created for each record in that data field), set the **Series Data Member** property value.

Property Grid X			
chart1 Chart 🛛			
ê≣ 2↓			
Data	A 1		
+ (Data Bindings)			
Data Adapter	GSPTableAdapter		
Data Member	GSP		
Data Source	myDataSet		
Pivot Grid Data Source Options	(PivotGridDataSourceOptions)		
Series Data Member			
+ Series Name Template			
Series Sorting	ĒĒ GSP		
+ Series Template	GSP 🔽		
Series Data Member Gets or sets the name of the data field generate and populate series.	ID Region Year (None)		

5. Then, adjust the series template which is accessed via the chart's **Series Template** property. First, set the **Argument Data Member** (which specifies from where the data for points' *arguments* is obtained).

Property Grid	×			
chart1 Chart				
2↓				
<ul> <li>Series Template</li> </ul>	(SeriesBase)			
Argument Data Member				
Argument Scale Type				
Data Filters	ĒĒ GSP			
Argument Data Member Gets or sets the name of the data field series' points.	GSP ID Region Year			

Make sure that the **Argument Scale Type** property is set to an appropriate value. Otherwise (e.g. when your data is of the *date-time* type, but this property is set to **Qualitative**), the resulting Chart will be seriously affected, and incorrectly represent its underlying data.

6.And, specify the **Value Data Members** property, indicating the data field(s) from which the points' *values* are obtained.

Property Grid					
chart1 Chart					
2∎ 2↓					
<ul> <li>Series Template</li> </ul>	(SeriesBase)	^			
Argument Data Member	Region				
Argument Scale Type	Qualitative				
Data Filters	(Collection)				
+ Label	(SideBySideBarSeriesLabel)				
🗄 Legend Point Options	(PointOptions)	=			
Legend Text					
Point Options	(PointOptions)				
Series Points Sorting	None				
Series Points Sorting Key	Argument				
Show in a Legend	Yes				
Summary Function					
+ Top N Options	(TopNOptions)				
<ul> <li>Value Data Members</li> </ul>	(Collection)				
Value					
Value Scale Type		-			
Value	□ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □				

As with the argument, make sure to appropriately specify the Value Scale Type.

7.At this point, the chart's data options are completely defined, so in this step some additional customization capabilities are described.

#### - Adjust the Series Name Template

By default, the name for every auto-created series is obtained directly from an appropriate data field in the bound data source. However, you can add some text to the beginning or to the end of every series name, via the **Series Name Template** property. For instance, here we set the **Begin Text** property to "GSP in ".

#### - Customize Series Labels

To hide labels for all series points, and prevent a chart from being crowded with numerous overlapping labels, set the **Series Template.Label.Visible** property to **No**. Alternatively, you can specify the **Resolve Overlapping Mode** option, to enable automatic collision detection and resolution for the labels.

### - Customize Axis Labels

To avoid overlapping axis labels, select an axis and set its **Label.Staggered** property to **Yes**.

If required, it is possible to customize many other properties for the Chart, which are not described here.

The chart is now ready. Switch to the Preview Tab, and view the result.



See Also Chart with Static Series

# **Styles and Conditional Formatting**

The topics of this section cover appearance-related information about the Report Designer.

This section consists of the following topics.

- <u>Understand Styles Concepts</u>
- Use Odd and Even Styles
- <u>Store and Restore Style Sheets</u>
- <u>Conditionally Change a Control's Appearance</u>
- <u>Conditionally Hide Bands</u>
- <u>Conditionally Change a Label's Text</u>

## **Understand Styles Concepts**

This document describes how you can provide a professional look to your reports, by effectively adjusting the appearance of its elements.

This document consists of the following sections.

- The Appearance Properties
- Styles Priority and Inheritance

### The Appearance Properties

In the Report Designer, a <u>report</u> and each of its elements (<u>bands</u> and <u>controls</u>) has a complete set of appearance options (such as **Background Color**, **Borders**, **Font**, **Foreground Color**, **Text Alignment**, etc.). By default, these properties aren't specified, meaning that their real values are obtained from a control's (or band's) *parent*, which is the report itself. So, the appearance, specified for a report, is distributed to all its child elements. Similarly, the appearance of a band is translated to the controls it contains.

Detail Detail          Detail	*	
Appearance		[
	*	1.
Background Color		
	Tomato	1
Border Color	Black	
Border Width	2	
Borders	All	
+ Font	Arial, 9.75pt	
Foreground Color	White	
Formatting Rules	(Collection)	
🛨 Padding	0, 0, 0, 0	
Style Priority	(Style Priority)	
+ Styles	(Collection)	
Text Alignment	Middle Left	~
	Border Width Borders Font Foreground Color Formatting Rules Padding Style Priority Styles Text Alignment	Border Width       2         Borders       All         ↔ Font       Arial, 9.75pt         Foreground Color       □ White         Formatting Rules       (Collection)         ↔ Padding       0, 0, 0, 0         ↔ Style Priority       (Style Priority)         ↔ Styles       (Collection)

In turn, a control's appearance can be adjusted independently from its parent.

	Property Grid	×
label2	label2 Label	
	Ê≣ 2↓	
	Appearance	
	Background Color	Turquois V
	Border Color	Custom Web System
	Border Width	MediumSpringGreen
	Borders	MediumAquamarine
	+ Font	Aquamarine
		Turquoise
	Background Color	LightSeaGreen
		MediumTurquoise
		DarkSlateGray
		PaleTurquoise
		Teal
		DarkCyan
		Aqua 📃
		Cyan 🗸

When it is required to reset a value assigned to a control's appearance property, you can right-click this property in the <u>Property Grid</u>, and in the invoked menu, click **Reset**. So, the control will be restored to the appearance of its parent.

label2	>	Property Grid	×
label2		label2 Label	~
		ê≣ 2↓	
		Appearance	<ul> <li>^</li> </ul>
		Background Color Bord Reset	· · · · · · · · · · · · · · · · · · ·
		Border Width	2
		Borders	All
		+ Font	Arial, 9.75pt 🗸
		Background Color	

### **Styles Priority and Inheritance**

To differentiate appearance settings in your report, you can create comprehensive *styles* (which are stored in the report's *style sheet*), and then can be assigned to individual elements. There are two ways to store a report's styles.

- to save them to external files (with REPSS extension), and then load them to a report via its Style Sheet Path property (this is described at <u>Store and Restore Style Sheets</u>);
- to store the styles within the report, so that they can be easily accessed via its **Style Sheet** property.

Note that if styles contained in a style sheet loaded via the **Style Sheet Path** property have the same names as styles already contained in a report, the latter ones are overridden.

When both styles and individual appearance settings are assigned to an element, you can control the priority of their differing options, via an element's **Style Priority** property.

By default, most of the Style Priority's options (Use Background Color, Use Border Color, etc.) are set to Yes.

This means that if any style is assigned to a control, its properties will have a higher priority than the appearance properties of this element or its parent. You can assign a higher priority to an element's appearance property, by disabling the corresponding **Use\*** property.

	Property Grid	×	
	<b>2</b> ↓		
	Appearance		
	Background Color	Tomato	
	Some properties	are omitted 📃	
	+ Style Priority	(Style Priority)	
	<ul> <li>Styles</li> </ul>	(Collection)	
	Even Style	(none)	
	Odd Style	(none)	
	<ul> <li>Style</li> </ul>	controlStyle1	
	Background Color	🔲 Turquoise 🔍	
Property Grid	×	Property Grid	×
label2 Label		label2 Label	
ê≣ 2↓		ê≣ 2↓	
Style Priority	(Style Priority) 🔼	Style Priority	(Style Priority) 🔥
Use Background Color	No	Use Background Color	Yes 🗸
label2	2	label2	5
1010/012			

The same principles are applied to the odd-even styles feature, which allows you to alternate the appearance of consecutive data rows in your report. For details on this, refer to Use Odd and Even Styles.

## 

When <u>conditional formatting</u> is applied to an element, its appearance definition has the highest priority.

### See Also

Use Odd and Even Styles Store and Restore Style Sheets Conditionally Change a Control's Appearance

## **Use Odd and Even Styles**

This tutorial describes how to apply *odd and even styles* to <u>report controls</u>, e.g. to alternate the background color for each record.

To utilize odd and even styles, do the following.

- 1.Create a <u>table report</u>.
- 2.Select the detail table, and in the <u>Property Grid</u>, expand its **Styles**. Invoke the drop-down list for the **Even Style**, and click **(New)**.

Property Grid		×
table1 Table		$\overline{}$
<b>₽</b> ≣ <b>2</b> ↓		
<ul> <li>Styles</li> </ul>	(Collection)	$\frown$
Even Style	(none) 🖂	
(None)		
(New)		
E		
×		

This will create a style and assign it to the control's **Even Style**.

3.Now, expand the **Even Style** property, and adjust the required options, e.g. set the **Background Color** to **ControlLight**.

Property Grid		×
table1 Table		
<b>₽</b> ≣ <b>2</b> ↓		
<ul> <li>Styles</li> </ul>	(Collection)	^
🖃 Even Style	controlStyle1	
Background Color	🔲 ControlLight 🖂	
Border Color	(Not set)	
Border Width	(Not set)	
Borders	(Not set)	
Font	(Not set)	
Foreground Color	(Not set)	
(Name)	controlStyle1	=
🕀 Padding	0, 0, 0, 0	=
Text Alignment	(Not set)	
Odd Style	(none)	-
Style	(none)	~
Background Color		

If required, perform the same steps, to create and assign an odd style, as well.

Switch to the Preview Tab, and view the result.

Product	Unit Quantity	Unit Price
Chai	10 boxes x 20 bags	\$18.00
Chang	24 - 12 oz bottles	\$19.00
Aniseed Syrup	12 - 550 ml bottles	\$10.00
Chef Anton's Cajun Seasoning	48 - 6 oz jars	\$22.00
Chef Anton's Gumbo Mix	36 boxes	\$21.35
Grandma's Boysenberry Spread	12 - 8 oz jars	\$25.00
Uncle Bob's Organic Dried Pears	12 - 1 lb pkgs.	\$30.00
Northwoods Cranberry Sauce	12 - 12 oz jars	\$40.00
Mishi Kobe Niku	18 - 500 g pkgs.	\$97.00
Ikura	12 - 200 ml jars	\$31.00
Queso Cabrales	1 kg pkg.	\$21.00
Queso Manchego La Pastora	10 - 500 g pkgs.	\$38.00
Konbu	2 kg box	\$6.00
Tofu	40 - 100 g pkgs.	\$23.25

### See Also

<u>Understand Styles Concepts</u> <u>Store and Restore Style Sheets</u> <u>Conditionally Change a Control's Appearance</u>

## **Store and Restore Style Sheets**

This tutorial describes how you can save a report's style sheet into an external file, and then load it back to the report.

You can store a report's style sheet (containing all the report's styles) in an external REPSS file. This makes it possible to easily restore a report's appearance from this file. For general information, refer to <u>Understand Styles</u> <u>Concepts</u>.

To learn how to store and restore report style sheets, do the following.

- 1. Create a new report and bind it to a data source.
- 2.Click the report's <u>Smart Tag</u>, and in the invoked actions list, click the ellipsis button for the **Style Sheet** property.

R	Report1* 🔟						
Ľ							
	Report Tasks						
-	Design in Report Wizard Edit and Reorder Bands						
-							
-	Data Source	myDataSet					
-	Data Member	Products					
1	Data Adapter	ProductsTableAdapter					
=	Filter String						
-	V Print when Data Source is Empty						
-	Detail Print Count when Data Source is Empty 1						
•	Detail Print Count	0	~				
1	Measure Units	Hundredths of an Inch					
-	Formatting Rules	(Collection)					
-	Formatting Rule Sheet	(Collection)	•••				
2	Style Sheet	(Collection)					
	Watermark	(None)					
-							

3.In the invoked **Styles Editor**, use the + button, to create new styles. For them, specify the desired options (e.g. **Background Color**), and click the **Save** button.

Styles Editor		×
🕂 🗶 🖳 🔂 🗁		
myEvenStyle	Mei Al	
myOddStyle	Save styles to a file Appearance	
	Background Color	Gainsboro 🖂 🔤
	Border Color	(Not set)
	Border Width (Not	set)
	Borders (Not	set) 🗸
	myOddStyle style	
		Close

Then, in the invoked **Save File** dialog, define a name for the style sheet file (.REPSS), and click **Save**.

- 4. Then delete the created styles, using the  $\times$  button, and close the dialog.
- 5.Select the report, and in the <u>Property Grid</u>, click its ellipsis button for the **Style Sheet Path** property. In the invoked **Open File** dialog, load the created REPSS file.

Property Grid	×				
report1 Report	~				
₽≣ <mark>2</mark> ↓					
	ection)	]			
Style Sheet's Path	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~				
🖳 Open					
🔾 🗸 🖉 🖉 🕹 🗸 Local Dis	k (C:) 🕨 My St	yles 🔻 🍫	Search		٩
🌗 Organize 👻 🏭 Views	👻 📑 New	Folder			?
Favorite Links	Name	Date modified	Туре	Size	
Documents	myStyleSh	eet.repss			
Recently Changed					
More »					
Folders 🔨					
File name:	myStyleSheet.re	epss	✓ Style She	eet files (*.repss)	-
			Open	Can	cel i

When you invoke the **Styles Editor** (via the report's **Style Sheet** property) again, you'll see that the styles are read-only, meaning that they are obtained from an external file.

	Property Grid			×		
	report1 Report	$\sim$				
	St 2↓					
	Style Sheet	(Collection	ı)			
	Style Sheet's Path	C:\My Sty	les\myStyleShee	t.repss		
Styl	les Editor				×	
+	× 🖳 🔜 🛛	> 🔚				
	EvenStyle		A l			
myC	OddStyle		ppearance			
				WhiteSmok	e	
			Border Color	(Not set)		
			Border Width	(Not set)		
			Borders	(Not set)	$\sim$	
			yEvenStyle style			
		m	vEvenotyle style			
				Clos		
				Clos	e .:	

If the **Style Sheet Path** property is then set to **None**, and a style sheet is loaded using the **Styles Editor** of the **Style Sheet** property, all these styles will become editable.

To learn how you can assign styles to report elements, refer to <u>Use Odd and Even Styles</u>. **Prote** 

Note that the styles loaded from a style sheet file have priority over the styles which exist in a report's style sheet. So, if the styles stored in the report have the same names as the styles loaded from a style sheet file, then the styles from the file will substitute for their namesakes.

See Also Understand Styles Concepts Use Odd and Even Styles Conditionally Change a Control's Appearance

## **Conditionally Change a Control's Appearance**

This tutorial describes the steps to conditionally change a control's appearance (e.g. make a <u>Label</u>'s text red if its value exceeds some threshold). Thanks to the *formatting rules* feature, to achieve this, no <u>scripts</u> are required, so you shouldn't write any code.

To conditionally change a control's appearance, do the following.

- 1. Create a data-aware report.
- 2.Click the report's <u>Smart Tag</u>, and in the invoked actions list, click the ellipsis button for the **Formatting Rule Sheet** option.

eport1* 🗵							
eport Tasks							
Design in Report Wizard							
Edit and Reorder Bands							
Data Source	myDataSet						
Data Member	Products	$\checkmark$					
Data Adapter	ProductsTableAdapter						
Filter String							
Print when Data Source is Empty							
Detail Print Count when Data Source is Empty Detail Print Count Detail Print Count 0							
					Measure Units	Hundredths of an Inch	
Formatting Rules	(Collection)						
Formatting Rule Sheet	(Collection)						
Style Sheet	(Collection)						
	(None)						

And, in the invoked **Formatting Rule Sheet Editor**, create a new *formatting rule* (by using the + button), and click the ellipsis button for its **Condition** property.

Formatting Rule Sheet Edito	or	×
+ × 📭 🕞		
formattingRule 1	Behavior     ▲       Condition     ■       □ Formatting     ↓       Background Color     □ (Not set)	-
	Border Color (Not set)	
	Close	

3. Then, in the invoked **Condition Editor**, define the required *Boolean* condition (which means that its result is returned as either *true* or *false*). In this tutorial, we will format fields if the **UnitPrice** value is greater than **30**.

Condition Editor		
[UnitPrice] > 30 + - × · % Functions Operators Fields Constants Variables Parameters	(…) = ≠ < ≤ Products CategoryID CategoryID CategoryID Discontinued EAN13 EAN13 ProductID AD ProductID AD ProductVame Discontinued CategoryID Categ	> O O O The type of this field is: System.Decimal
		Cancel

To save the condition and close the dialog, click **OK**.

4.Now, back in the **Formatting Rule Sheet Editor**, define the formatting to be applied (e.g. specify the desired font color).

Formatting Rule Sheet Edito	or	×				
+ × 📭 🗟						
formattingRule1	Ê≣ 2↓					
	Formatting	Font = [Font: Name=Ari 🔨				
	Background Color	(Not set)				
	Border Color	(Not set)				
	Border Width	(Not set)				
	Borders	(Not set)				
	+ Font	Arial, 9.75pt, style=Bold				
	Foreground Color	📕 192, 0, 0 🖂				
	+ Padding	(Not set)				
formattingRule1						
		Close Close				

To save the changes and quit the dialog, click **Close**.

5. Finally, select the band or control to which the formatting rule must be applied (in this example it is the <u>Detail band</u>), and via its Smart Tag, access its collection of **Formatting Rules**.

🔻 📃 Detail 🕻	Detail Tasks						
	Edit and Reorder Ban	Edit and Reorder Bands					
	Sort Fields (Collection)		•••				
	Multi-Column Mode	None					
	Multi-Column Layout	First Down, then Across	$\checkmark$				
	Column Count	1	~				
	Column Width	0	~				
	Column Spacing	0	÷				
	Formatting Rules	(Collection)	R				
	Keep Together						

And, in the invoked **Formatting Rules Editor**, move the rule from left to right (using the > button), for it to come into effect for this band.

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Formatting Rules Editor	
Rules available in a report:	Rules applied to a control:
	OK Cancel

If multiple rules are applied, it is possible to customize their precedence, by using the up and down arrow buttons at the right of the dialog. So, the rules are applied in the same order that they appear in the list, and the last rule in the list has the highest priority.

Chai \$18.00 \$19.00 Chang Aniseed Syrup \$10.00 \$22.00 Chef Anton's Cajun Seasoning \$21.35 Chef Anton's Gumbo Mix \$25.00 Grandma's Boysenberry Spread Uncle Bob's Organic Dried Pears \$30.00 Northwoods Cranberry Sauce \$40.00 Mishi Kobe Niku \$97.00 Ikura \$31.00 Queso Cabrales \$21.00 \$38.00 Queso Manchego La Pastora Konbu \$6.00 Tofu \$23.25 Genen Shouyu \$15.50 Pavlova \$17.45 \$39.00 Alice Mutton \$62.50 Carnarvon Tigers

The result is shown in the following image.

### See Also

<u>Conditionally Hide Bands</u> <u>Conditionally Change a Label's Text</u> 280

## **Conditionally Hide Bands**

This tutorial describes how to hide bands if a certain logical condition is met. Note that no <u>scripts</u> are required to accomplish this task.

To demonstrate this feature, we'll use a report with grouping, similar to the one created in the following tutorial: <u>Change or Apply Data Grouping to a Report</u>.

To conditionally hide bands in a report, do the following.

1.Select the <u>Group Header</u>, and click its <u>Smart Tag</u>. Then, in the invoked actions list, click the ellipsis button for the **Formatting Rules** option.

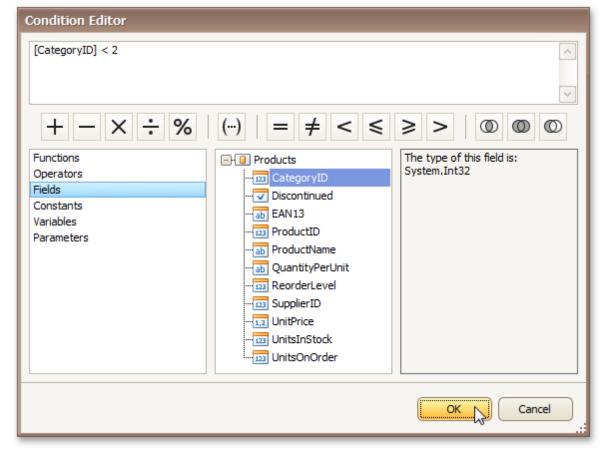
🔻 🚍 GroupHeader1 < 🕻	Group Header Tasks	S			
Category:	Edit and Reorder Bands				
	Group Fields	(Collection)			
	Group Union	None			
	Level	0			
	Sorting Summary	(Group Sorting Summary)			
	Formatting Rules	(Collection)	<b>v</b>		
Formatting Rules Edito	or				
Rules available in a rep	port:	Rules applied to a control:			
		>	•		
		»	•		
		~			
Edit Rule She			_		
		ОК	Cancel .:		

In the invoked Formatting Rules Editor, click the Edit Rule Sheet... button.

2.Now, in the invoked **Formatting Rule Sheet Editor**, click the + button, to create a new rule. Then, set its **Visible** property to **No**, and click the ellipsis button for the **Condition** property.

Formatting Rule Sheet Editor					
+ × 🖬 🗟					
formattingRule1		â∮			
		Behavior	<b>^</b>		
		Condition			
		Formatting	Visible = False 😽		
		Background Color	(Not set)		
		Border Color	(Not set)	=	
		Border Width	(Not set)		
		Borders	(Not set)		
		Font	(Not set)		
		Foreground Color	(Not set)		
		🗄 Padding	(Not set)		
		Text Alignment	(Not set)		
		Visible	No	$\overline{}$	
	1	formattingRule1			
Close					

3.Construct the required logical expression (e.g. [CategoryID] < 2), and click OK.



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To quit the Formatting Rule Sheet Editor, click Close.

4.Back in the **Formatting Rules Editor**, move the created rule to the dialog's right section (**Applied Rules**), to make it active.

Formatting Rules Editor	
Available Rules:	Applied Rules:
Edit Rule Sheet	OK Cancel

And, do the same for the report's <u>Detail band</u>. That is, click the ellipsis button for its **Formatting Rules** property, and in the invoked dialog, apply the same rule to this band, as well.

Switch to the <u>Preview Tab</u>, and view the result. In our example, you can see that the first category isn't shown. So, the conditional formatting was applied properly.

Products by Categories
Category: 2
Aniseed Syrup
Chef Anton's Cajun Seasoning
Chef Anton's Gumbo Mix
Northwoods Cranberry Sauce
Genen Shouyu
Gula Malacca
Sirop d'érable
Vegie-spread
Category: 3
Pavlova
Sir Rodney's Marmalade

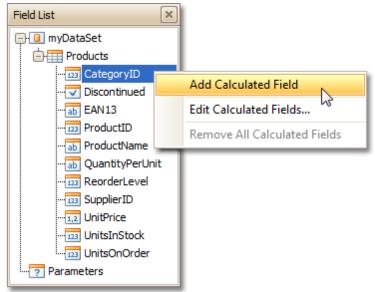
<u>Conditionally Change a Control's Appearance</u> <u>Conditionally Change a Label's Text</u>

# **Conditionally Change a Label's Text**

This tutorial demonstrates how to change a label's text if a certain condition is met, without using scripts.

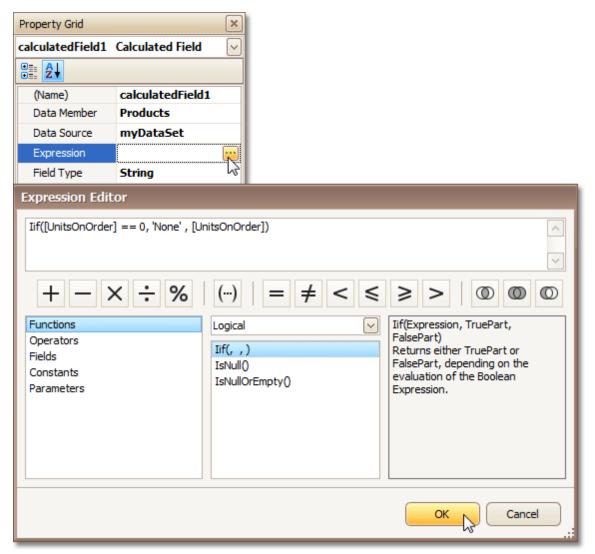
To conditionally change a label's text, do the following.

- 1. Create a new report and bind it to a data source.
- 2.To create a calculated field, in the Field List, right-click any item inside the created dataset, and on the invoked menu, choose Add Calculated Field.



3.Select the calculated field, and in the <u>Property Grid</u>, set its **Field Type** to **String**. Then, click the ellipsis button for its **Expression** property.

And, in the invoked **Expression Editor**, define the required logical condition for the calculated field (e.g. **Iif([UnitsOnOrder] == 0, 'None', [UnitsOnOrder])**, which means that if the **UnitsOnOrder** data field's value is equal to **0**, the control's text will be replaced with **None**).



To save the changes and close the dialog, click **OK**.

4. Finally, drop the required data fields (and the created calculated field as well) from the Field List onto the report's <u>Detail</u> band.

V Detail	Field List 🛛 🗙
ProductName     [CalculatedField1]     The second sec	myDataSet     Products     Discontinued     Disconti

The report is now ready. Switch to the <u>Preview Tab</u>, and view the result.

Chai	None
Chang	40
Aniseed Syrup	70
Chef Anton's Cajun Seasoning	None
Chef Anton's Gumbo Mix	None
Grandma's Boysenberry Spread	None
Uncle Bob's Organic Dried Pears	None
Northwoods Cranberry Sauce	None
Mishi Kobe Niku	None
Ikura	None
Queso Cabrales	30
Queso Manchego La Pastora	None
Konbu	None

### See Also

Conditionally Change a Control's Appearance Conditionally Hide Bands

# Navigation

The tutorials of this section cover the navigation-related features of the Report Designer.

This section consists of the following tutorials.

- Add Bookmarks
- <u>Create Hyperlinks</u>
- Add a Cross-Reference

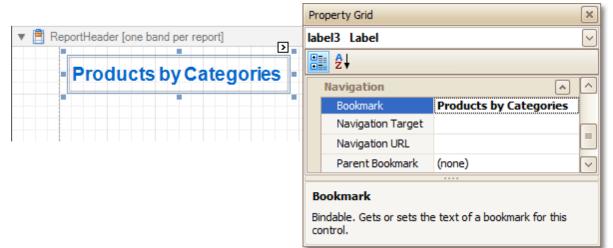
## Add Bookmarks

This tutorial describes the steps to create a report with *bookmarks* (a so-called *Document Map*). This feature allows you to easily navigate through the report during print preview.

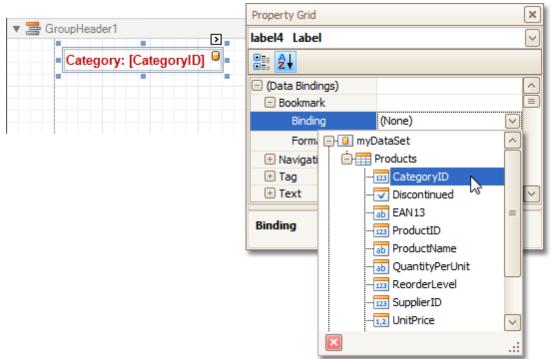
To demonstrate the Document Map feature, we'll use a report with grouping, similar the one created in the following tutorial: <u>Change or Apply Data Grouping to a Report</u>.

To create a report with bookmarks, do the following.

1. Click the Label in the Report Header band, to select it, and in the <u>Property Grid</u>, set its **Bookmark** property to the same value as its text (i.e. **Products by Categories**).



2.Now, select the Label in the report's Group Header band. As this control is bound to data, we will bind its **Bookmark** property to the same data field, using the **(Data Bindings)** property.



Note that as with other bindable properties, you also can apply <u>value formatting</u> to the **Bookmark** property (e.g. **Category {0}**).

3. Then, for this Label, specify its **Bookmark**, and set the **Parent Bookmark** property to the Report Header's label, to define the document map's hierarchy.

	Pr	operty Grid		×	
	label4 Label				
Category: [CategoryID]		2↓			
		Navigation			
		Bookmark	Categori	es	
		Navigation Target			
		Navigation URL			
		Parent Bookmark	label3		
	P	arent Bookmark	(none) label 1 label 2		
			label3	R	

The report with bookmarks is now ready. Switch to the Preview Tab, and view the result.

🛛 🛃 AS   🗁 🔚   8° 8 🕞 🖳	🕎 🔍 🔍 100% 🔽 🔍	< ▶ ▶ 🗄 🗜 -		
Document Map	Products by Categor	ies		
<ul> <li>myReport1</li> <li>i→ Products by Categories</li> </ul>	Category: 1			
Category 1	Chai	\$18.00		
Category 2	Chang	\$19.00		
Category 4	Sasquatch Ale	\$14.00		
Category 5	Steeleye Stout	\$18.00		
Category 6 Category 7	Côte de Blaye	\$263.50		
Category 8	Chartreuse verte	\$18.00		
	Ipoh Coffee	\$46.00		
	Laughing Lumberjack Lager	\$14.00		
	Outback Lager	\$15.00		
	Lakkalikööri	\$18.00		
	Category: 2			
	Aniseed Syrup	\$10.00		
	Chef Anton's Cajun Seasoning	\$22.00		
	Chef Anton's Gumbo Mix	\$21.35		
		>		
M Designer 🛛 🔂 Preview 🤣 HTML View 🛛 😡 Scripts 🖓 Page 1 of 2 🔹 Zoom Factor: 100%				

#### See Also

Create Hyperlinks Add a Cross-Reference

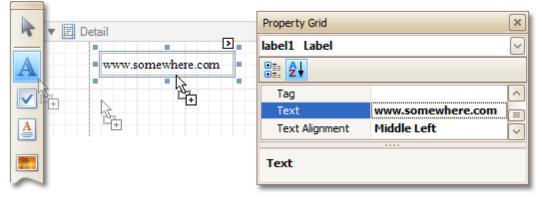
## **Create Hyperlinks**

This tutorial demonstrates how to embed a *hyperlink* into your report.

Note that a label will behave as a hyperlink both in a report's <u>Print preview</u>, <u>HTML preview</u> and when the report is exported to PDF, HTML, MHT, RTF, XLS and XLSX formats.

To insert a hyperlink into your report, do the following.

- 1. Create a new report.
- 2.Drop a Label onto the report, and in the Property Grid, change its **Text** to the one required for the link.



In addition, to make the Label look like a typical link, you can change its appearance appropriately (e.g. make it blue and underlined).

3.Now, set its **Navigation Target** to the required value (*\_blank*, *\_parent*, *\_search*, *\_self*, or *\_top*), and define the required **Navigation URL**.

▼	Pro	operty Grid		×
	lał	el1 Label		$\sim$
www.somewhere.com		â∮		
		Navigation	× (	^
		Bookmark		
		Navigation Target	_blank	
		Navigation URL	http://www.somewhere.com	
		Parent Bookmark	(none)	
	_			=
L	-			-

The hyperlink is now ready. Switch to the Preview Tab (or, HTML View Tab), and view the result.



See Also Add Bookmarks Add a Cross-Reference

## Add a Cross-Reference

This tutorial demonstrates how to add a *cross-reference* to your report. A cross-reference is simply a link whose target is located within the current document, which allows you to establish easy navigation through a report. In this example, we place a link at the bottom of each group, leading to the beginning of the report.

To demonstrate this feature, we'll use a report with grouping, similar the one created in the following tutorial: <u>Change or Apply Data Grouping to a Report</u>.

To create a report with cross-references, do the following.

1.Drop a label onto the created **ReportHeader** band, which will serve as the report's headline. Click the label, to type the desired contents into it. Then, in the <u>Property Grid</u>, set its **Name** property to **reportTop**.

▼ 🗐 ReportHeader [one band per report]	Property Grid		
Ineport leader [one band per report]	reportTop Label		
Products by Categories	₽ Ż↓		
	Design 🔺 🛆		
	(Name) reportTop		

2. To accompany the existing <u>Group Header</u> with the corresponding Footer, in the <u>Group and Sort Panel</u>, check the **Show Footer** option.

Then, drop a label onto it. As it will be the link, change its **Text** to **Top of Report**, and apply the desired formatting to it (e.g. the blue color and underlined text).

Set its **Navigation Target** property to **\_self**. Then, if you click the drop-down list of the **Navigation URL** property, you can see the controls available in your report. Choose the one named **reportTop**.

▼ 🚍 GroupFooter1	Pro	operty Grid			×
	lab	el3 Label			$\overline{}$
Top of Report		Ź↓			
		Navigation		•	^
		Bookmark			
		Navigation Target	_self		
		Navigation URL	reportTop		
		Parent Bookmark			
	Navigation URL label1		3	F	
			5		

The report with cross-references is now ready. Switch to the <u>Preview Tab</u> (or, <u>HTML View Tab</u>), and view the result.

Products by Categories
Category: 1
Chai
Chang
Sasquatch Ale
Steeleye Stout
Côte de Blaye
Chartreuse verte
Ipoh Coffee
Laughing Lumberjack Lager
Outback Lager
Lakkalikööri
<u>Top of Report</u> √

See Also Add Bookmarks Create Hyperlinks

## Miscellaneous

The topics of this section cover the Report Designer features that don't fall into other categories.

This section consists of the following topics.

- Handle Events via Scripts
- <u>Show the Current Row Index</u>
- <u>Count the Number of Records in a Report or a Group</u>
- Add Page Numbers for Groups
- Cancel Printing If a Report Does Not Contain Any Records
- Limit the Number of Records per Page

## Handle Events via Scripts

This document describes the basic principles of *scripting*, which can be performed by handling the events of a report, and its <u>bands</u> and <u>controls</u>.

This documents consists of the following sections.

- <u>Scripting Overview</u>
- <u>Scripting Specifics</u>
- Example: Custom Summary

#### **Scripting Overview**

Scripts are program commands, placed within the *event handlers* of the required report elements. And, when the corresponding event occurs (e.g. a mouse click), the script code runs.

You can write *scripts* for a report or any of its elements (bands and controls), to be executed when the report is being <u>previewed</u>, <u>printed or exported</u>.

Although when in the Report Designer, virtually any task can be accomplished without scripting (<u>Conditionally</u> <u>Change a Control's Appearance</u>, <u>Conditionally Change a Label's Text</u> and <u>Conditionally Hide Bands</u>), scripting is made available to extend the standard functionality as far as may be required. And, scripting is the only way to calculate *custom summaries* (this is detailed in the <u>last section of this document</u>).

Every report element has an set of script events, which are individual for each element's type. For example, the events of the <u>Detail</u> band are shown in the following image.

Property Grid	×
Detail Detail	$\checkmark$
Ê 2↓	
Scripts	(Band Scripts)
After Print	
Before Print	
(New)	
×	

After you click (New) for an event (e.g. the **Before Print**, which is the most used), the <u>Scripts Tab</u> is switched on, where you can manage and edit all the report's scripts.

-

Detail De	etail 🛛 Before Print	✓ ✓	Validate
1 2 3 4 5 6	<pre>private void Detail_BeforePrint(object System.Drawing.Printing.PrintEventArgs</pre>		
< [[]]			>

In this tab, for a selected event, a script template is auto-added, in the language specified via the **Script Language** property of the report.

You can verify that your report's scripts are valid, by clicking **Validate**. The validation result is then displayed in the <u>Scripts Errors Panel</u>.

Scripts Errors		
Description	Line	Column
; expected	3	17
; expected	3	28

Note that scripts are saved to a file along with the report's layout (for details on this, refer to <u>Back Up the Current</u> <u>Layout Before Modifying It</u>).

### **Scripting Specifics**

#### 1.Scripting language

The report scripts may be written in one of the following languages that the .NET framework supports - **C#**, **Visual Basic** and **J#**. Since J# is not installed with the framework installation, by default, make sure it is present before writing code in it. The scripting language is specified via the **Script Language** property of the <u>Report</u> object. It is set to C#, by default.

#### 2.Scripting scope

Script execution is performed in the following way:

The report engine generates a temporary class in memory. The names of the variables are defined by the **Name** properties of the controls and objects they represent. When the script is preprocessed, its namespace directives are cut from the script code and added to the namespace, where the temporary class is defined.

After preprocessing, all scripts are placed in the code of the temporary class. Then, the resulting class is compiled in memory, and its methods are called when events occur.

Scripting offers many advantages: you can declare classes (they will become inner classes), variables, methods, etc. A variable declared in one script is accessible in another script, because it is, in fact, a variable of the temporary class.

### **3.Reference External Assemblies**

The **Script References** property of the **Report** object specifies the full paths (including the file names) to the assemblies that are referenced in the scripts used in a report. These paths should be specified for all the assemblies that are included in scripts via the **using** (C#), **Imports** (Visual Basic) or **import** (J#) directives.

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### Note

Usually, you don't need include any assembles, because most standard assemblies that you may require in scripts are already referenced by the Report Designer.

### **Example: Custom Summary**

In this example, we will display the total number of product unit packs in a group.

To perform this, execute steps similar to the ones described in <u>Add Totals to a Report</u>, except that for the summary field, you should set the **Function** property to **Custom**.

▼ 🚍 GroupHeader1		Property Grid X			
	lab	el4 Label	$\sim$		
Category: [CategoryID]		Ź↓			
V 🔄 Detail		Summary	Group, Custom		
[ProductName] 🧧 [UnitsOnOrder]		Running	Group		
V = GroupFooter1		Function	Custom		
Custom([UnitsOnOrder])		Format String			
		Ignore Null Values	No		
	FI	unction			

Then, the additional events are added to the label's Scripts property.

Property Grid	×
label4 Label	$\sim$
ê 2↓	
Summary Calculated	
Summary Get Result	
Summary Reset	
Summary Row Changed	$\checkmark$

You can handle these events in the following way.

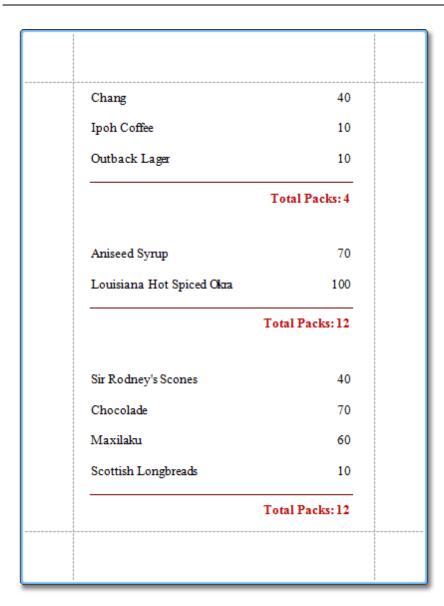
```
C#
                                                                                             Copy Code
// Declare a summary and a pack.
double totalUnits = 0;
double pack = 15;
private void OnSummaryReset(object sender, System.EventArgs e) {
    // Reset the result each time a group is printed.
    totalUnits = 0;
private void OnSummaryRowChanged(object sender, System.EventArgs e) {
    // Calculate a summary.
    totalUnits += Convert.ToDouble(GetCurrentColumnValue("UnitsOnOrder"));
private void OnSummaryGetResult(object sender,
DevExpress.XtraReports.UI.SummaryGetResultEventArgs e) {
   // Round the result, so that a pack will be taken into account
    // even if it contains only one unit.
   e.Result = Math.Ceiling(totalUnits / pack);
   e.Handled = true;
```

}

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Visual Basic	Copy Code	
' Declare a summary and a pack.		
Private totalUnits As Double = 0		
Private pack As Double = 15		
Private Sub OnSummaryReset(ByVal sender As Object,	ByVal e As System.EventArgs)	
' Reset the result each time a group is printed		
totalUnits = 0		
End Sub		
Private Sub OnSummaryRowChanged(ByVal sender As Obj	ect, ByVal e As System.EventArgs)	
' Calculate a summary.		
<pre>totalUnits += Convert.ToDouble(GetCurrentColumn</pre>	Value("UnitsOnOrder"))	
End Sub		
Private Sub OnSummaryGetResult(ByVal sender As Obje	ct, _	
ByVal e As DevExpress.XtraReports.UI.SummaryGetResu	ltEventArgs)	
' Round the result, so that a pack will be taken into account		
' even if it contains only one unit.		
e.Result = Math.Ceiling(totalUnits / pack)		
e.Handled = True		
End Sub		

Finally, switch to the Preview Tab, and view the result.



### See Also

Show the Current Row Index Count the Number of Records in a Report or a Group Add Page Numbers for Groups Cancel Printing If a Report Does Not Contain Any Records Limit the Number of Records per Page

## Show the Current Row Index

This document describes how to accompany every record in a <u>data-bound report</u> with its current row index.

To show the current row index in a report, use a <u>Label</u> control <u>bound to a data field</u>, and specify its **Summary** options in the following way.

▼ I Detail	Pr	operty Grid	×
	lat	bel1 Label	$\sim$
RecordNumber([ProductName])		₽	
		Summary	Report, RecordNumber
		Running	Report
		Function	Record Number
		Format String	
		Ignore Null Values	Yes 🗸
	_		

The result is shown in the following image.

 1	Chai
2	Chang
3	Aniseed Syrup
4	Chef Anton's Cajun Seasoning
5	Chef Anton's Gumbo Mix
6	Grandma's Boysenberry Spread
7	Uncle Bob's Organic Dried Pears
8	Northwoods Cranberry Sauce
9	Mishi Kobe Niku
10	Ikura
11	Queso Cabrales
12	Queso Manchego La Pastora

### See Also

<u>Count the Number of Records in a Report or a Group</u> <u>Limit the Number of Records per Page</u> <u>Cancel Printing If a Report Does Not Contain Any Records</u>

## Count the Number of Records in a Report or a Group

This tutorial describes how to count the number of records in a report or a group. To demonstrate this feature, we'll use a report with grouping, similar the one created in the following tutorial: <u>Change or Apply Data Grouping</u> to a Report.

This tutorial consists of the following sections.

- <u>Count the Number of Records in a Group</u>
- <u>Count the Number of Records in a Report</u>
- Get the Result

### Count the Number of Records in a Group

To count the number of records in a group, do the following.

• Select the Label in the Group Footer area, and in the Property Grid, expand its Summary category.

▼ 🚍 GroupFooter1	Property Grid	×
	label5 Label	
Units Count: Count([UnitPrice])	<b>e</b> ≣ <b>2↓</b>	
	Summary	Group, Count, Units Co 🛆
	Running	Group
	Function	Count 🖂
	Format String	Units Count: {0}
	Ignore Null Values	Yes
	Function	
	Gets or sets the arithmet	ic function to calculate.

Set the Running option to Group and the Function to Count.

The **Ignore NULL values** option is useful for functions like **Count** or **Average**, because the number of elements counted will depend on it.

If required, you can specify the **Format String** (e.g. as **Units Count: {0}**). Note that *value formatting* is applied to a summary independently of the <u>general formatting</u>, and has a greater priority.

#### Count the Number of Records in a Report

To count the number of records in a report, do the following.

1.To add a <u>Report Footer</u> band to your report, right-click anywhere on it, and in the invoked <u>Context Menu</u>, choose **Insert Band** | **ReportFooter**.

	<u>P</u> aste	1	
×	<u>D</u> elete		
	Insert <u>B</u> and		TopMargin
	Insert Detail Report		ReportHeader
	Zoom	•	PageHeader
<b>P</b>	P <u>r</u> operties	=	GroupHeader
_			Detail
		3	GroupFooter
			ReportFooter
		â	PageFooter
			BottomMargin

2.Then, place a <u>Label bound to a data field</u> onto it, and in the Property Grid, expand its **Summary** category.

	Property Grid	×
ReportFooter [one band per report]	label6 Label	$\checkmark$
Total Count: Count( [ProductName] )	<b>₽</b> ≣ <b>2</b> ↓	
	Summary	Report, Count, Total C
	Running	Report 🖂
	Function	Count
	Format String	Total Count: {0}
	Ignore Null Values	Yes
	Running	
	Gets or sets a value spec the arithmetic function is	cifying a report area, for which calculated.

Set the **Running** option to **Report** and **Function** to **Count**.

The **Ignore NULL values** option is useful for functions like **Count** or **Average**, because the number of elements counted will depend on it.

If required, you can specify the **Format String** (e.g. as **Total Count: {0}**). Note that *value formatting* is applied to a summary independently of the <u>general formatting</u>, and has a greater priority.

### **Get the Result**

The report is now ready. Switch to the <u>Preview Tab</u>, and view the result.

88 🗁	🗐 🗗 🗅 🔽 🖳 🖑 🔍 🔍	100% 🖂 🔍 🛛 🖣 🖂 🖉	-
	Category: 8		^
	Ikura	\$31.00	
	Carnarvon Tigers	\$62.50	
	Nord-Ost Matjeshering	\$25.89	
	Inlagd Sill	\$19.00	
	Gravad lax	\$26.00	
	Boston Crab Meat	\$18.40	
	Spegesild	\$12.00	
	Escargots de Bourgogne	\$13.25	
	Röd Kaviar	\$15.00	
	Units Count: 9	[	=
	Total Count: 62		
			~
😡 Designe			%

## See Also

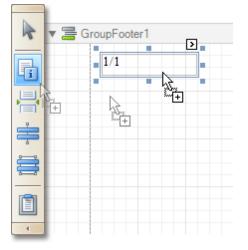
Show the Current Row Index Limit the Number of Records per Page Cancel Printing If a Report Does Not Contain Any Records Add Page Numbers for Groups

## Add Page Numbers for Groups

This tutorial demonstrates how to display page numbers individually, for each group in your report. To demonstrate this feature, we'll use a report, similar to the one created in the following tutorial: <u>Change or Apply</u> <u>Data Grouping to a Report</u>.

To add page numbers for groups, do the following.

1. From the <u>Toolbox</u>, drop the <u>Page Info</u> control onto the <u>Group Footer</u>.



2. Then, select the control, and set its Running Band to GroupHeader1.

Property Grid					
pa	pageInfo1 Page Info 🗸 🗸				
	₽				
	Format	Page {0} of {1}			
	Page Informaton	"Current of Total" Page Numbers 📃			
	Running Band	GroupHeader1 🛛 🖓 🖓			
		(none)			
R	unning Band	GroupHeader1			

If required, you also can specify its **Format** property (e.g. **Page {0} of {1}**).

3.Now, you should force each new group to start on a separate page. Otherwise, group page numbers will be calculated incorrectly.

To do this, select the Group Footer, and set its Page Break to After the Band.

Pro	Property Grid X			
Gr	GroupFooter1 Group Footer			
•	₽			
	Level	0		
	Page Break	After the Band 🛛 🖂 🖃		
	Print at Bottom	None 🗸		
		Before the Band		
P	age Break	After the Band		

4. Finally, select the Group Footer, and click its <u>Smart Tag</u>. In its actions list, check the **Repeat Every Page** option.

▼ 🚟 GroupFooter1 🔇	Group Footer Tasks	5
	Edit and Reorder B	Bands
	Group Union	None
	Formatting Rules	(Collection)
	<ul> <li>☐ Keep Together</li> <li>✓ Repeat Every</li> <li>☐ Print at Botton</li> </ul>	Page

Then, you can do the same for the Group Header, as well.

The report is now ready. Switch to the <u>Preview Tab</u>, and view the result.

Category: 1
Laughing Lumberjack Lager
Unit Price: \$14.00
Quantity per Unit: 24 - 12 oz bottles
Units in Stock: 52
Units on Order: 0
Outback Lager
Unit Price: \$15.00
Quantity per Unit: 24 - 355 ml bottles
Units in Stock: 15
Units on Order: 10
Lakkalikööri
Unit Price: \$18.00
Quantity per Unit: 500 ml
Units in Stock: 57
Units on Order. 0
Page 2 of 2

#### See Also

Sort Groups by a Summary Function Result Show the Current Row Index Count the Number of Records in a Report or a Group Cancel Printing If a Report Does Not Contain Any Records Limit the Number of Records per Page

## Sort Groups by a Summary Function Result

This tutorial demonstrates how to sort groups based on the result of a function summary specified for them. To demonstrate this feature, we'll use a report similar to the one created in the following tutorial: <u>Change or Apply</u> <u>Data Grouping to a Report</u>.

To sort groups by a summary function result, do the following.

1.Select the Group Header band and click its <u>Smart Tag</u>. In the invoked actions list, click the ellipsis button for the **Sorting Summary** option.

<ul> <li>ReportHeader [on</li> </ul>	e band per report]			
Products by Categories				
▼ 🚍 GroupHeader1 🗹	Group Header Task	s		
Category:	Edit and Reorder B	Bands		
▼	Group Fields	(Collection)		
[ProductNa	Group Union	None		
▼ <del>ट</del> GroupFooter1	Level	0		
	Sorting Summary	(Group Sorting Summary)		
	Formatting Rules	(Collection)		
	Keep Together			
	Repeat Every Page			

2. Then, in the invoked **Group Sorting Summary Editor**, check the **Enabled** option, and specify a field and summary function against which the group should be sorted.

Group Sorting Summary Editor	×
<ul> <li>✓ Enabled</li> <li>Field:</li> <li>UnitPrice</li> <li>✓</li> <li>Summary function:</li> <li>Sum</li> <li>✓</li> <li>Sort order:</li> <li>Ascending</li> <li>✓</li> <li>Ignore null values</li> </ul>	5 <null> 7 -2 5 4 10 3 32</null>
	OK Cancel

If required, you also can change the default sorting order (from descending to ascending), and choose

307

to ignore null values.

Click **OK** to apply the changes, and switch to the <u>Preview Tab</u> to view the result.

Products by Categories	
Category: 7	
onglife Tofu	\$10.00
	\$10.00
ategory: 2	
niseed Syrup	\$10.00
ouisiana Hot Spiced Okra	\$17.00
	\$27.00
ategory: 8	
ravad lax	\$26.00
øgede sild	\$9.50
	\$35.50
ategory: 3	
r Rodney's Scones	\$10.00
nocolade	\$12.75
laxilaku	\$20.00
cottish Longbreads	\$12.50
	\$55.25
ategory: 4	
ueso Cabrales	\$21.00
orgonzola Telino	\$12.50
lascarpone Fabioli	\$32.00
	\$65.50

### See Also

Add Totals to a Report Change or Apply Data Grouping to a Report Count the Number of Records in a Report or a Group Add Page Numbers for Groups

# **Cancel Printing If a Report Does Not Contain Any Records**

To cancel printing when a report does not contain any records, simply set the report's **Print when Data Source is Empty** property to **No**.

You can quickly perform this via the report's Smart Tag.

<ul> <li>The end of end of the end of th</li></ul>	or and the end 2 is a di-			
Report Tasks				
Design in Report Wizard				
Edit and Reorder Bands				
Data Source	myDataSet	$\sim$		
Data Member	Products	$\sim$		
Data Adapter	ProductsTableAdapter	$\sim$		
Filter String				
Print when Data Source is Empty				
Detail Print Count when Data Source is Empty	1	~		
Detail Print Count	0	*		
Measure Units	Hundredths of an Inch	~		
Formatting Rules	(Collection)			
Formatting Rule Sheet	(Collection)			
Style Sheet	(Collection)			
Watermark	(None)			

#### See Also

<u>Show the Current Row Index</u> <u>Count the Number of Records in a Report or a Group</u> <u>Limit the Number of Records per Page</u>

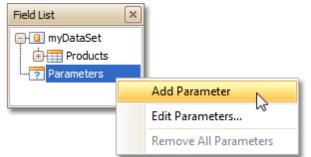
## Limit the Number of Records per Page

This tutorial demonstrates how to define how many records should be displayed at each page in a report's Print Preview. Note that no <u>scripts</u> are required to accomplish this task.

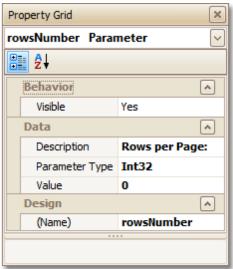
To demonstrate this feature, we'll use a report, similar to the one created in the following tutorial: <u>Change or</u> <u>Apply Data Grouping to a Report</u>.

To limit the number of records per page, do the following.

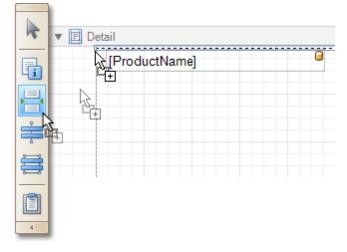
1.To add a <u>parameter</u> to the report, in the <u>Field List</u>, right-click the **Parameters** section, and in the invoked menu, choose **Add Parameter**.



2.Select the parameter, and in the <u>Property Grid</u>, set its **Description** to **Rows per Page:**, **Parameter Type** to **Int32** and **(Name)** to **rowsNumber**.



3. From the <u>Toolbox</u>, drop the <u>Page Break</u> control onto the top of the report's <u>Detail</u> band.



4.Select the Page Break, and set its **Visible** property to **No**. Then, click the ellipsis button for its **Formatting Rules** property, and in the invoked **Formatting Rules Editor**, click the **Edit Rule Sheet...** button.

Property Grid	×	
pageBreak1 Page Bre	eak 🖂	
₽∎ 2↓		
Appearance	<u> </u>	
Formatting Rules	(Collection) 🙀 😑	
Behavior	-ho-	
+ Scripts Visible	(Control Scri No V	
Formatting Rules Editor	r	
Rules available in a repo	ort: R	ules applied to a control:
	> >>	•
	<	
Edit Rule She		
		OK Cancel

5.Now, in the invoked **Formatting Rule Sheet Editor**, click +, to create a new formatting rule. Set its **Visible** property to **Yes**, and click the ellipsis button for its **Condition** property.

Formatting Rule Sheet Editor				
+ × 🖳 🚠				
formattingRule 1	Ê 2↓			
	Behavior			
	Condition			
	Formatting	Visible = True		
	Some propertie	es are omitted		
	Visible	Yes 🗸		
formattingRule1				
		Close .::		

6.In the invoked Condition Editor, define a logical expression for the rule, (e.g. ([DataSource. CurrentRowIndex] % [Parameters.rowsNumber] == 0) And ([DataSource.CurrentRowIndex] != 0)).

Condition Editor ([DataSource.CurrentRowIndex] %	[Parameters.rowsNumber] == 0) And ([[	DataSource.CurrentRowIndex] != 0)	
$+ - \times \div \%   ( \cdot \cdot )   = \neq < \leq \geq >   \textcircled{0} \textcircled{0} \textcircled{0}$			
Functions	[DataSource.RowCount]	Returns the index of the current	
Operators	[DataSource.CurrentRowIndex]	data row in a datasource. Note that this index is zero-based.	
Fields Constants			
Variables			
Parameters			
		OK Cancel	

To save the changes and close the dialog, click  $\ensuremath{\textbf{OK}}$  .

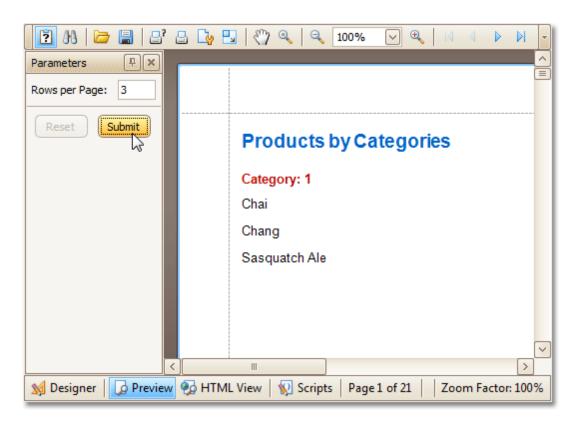
Then, click Close, to quit the Formatting Rule Sheet Editor, as well.

7.Now, back in the **Formatting Rules Editor**, move the created rule to the list of applied rules on the right, using the arrow buttons in the middle of the dialog.

Formatting Rules Editor		
Available Rules:	Applied Rules:	
	formattingRule 1	<ul><li>↑</li><li>↓</li></ul>
Edit Rule Sheet		
	OK Cancel	

To save the changes and close the editor, click **OK**.

The report is now ready. Switch to the <u>Preview Tab</u>, and in the **Parameters** section, define the required value and click **Submit**.



Note that while in this example, the number of rows is specified each time the report is being previewed, you can make this number secure, by setting the parameter's **Value** option to the desired value, and then setting the report's **Request Parameters** option to **No**.

#### See Also

Show the Current Row Index Count the Number of Records in a Report or a Group Cancel Printing If a Report Does Not Contain Any Records

## **Report Designer Reference**

A report is built from **controls** (text labels, images, zip codes, charts, etc) spread across report sections called **bands** (various headers, footers and content sections). The main interface elements helping you manage these building blocks are **Control Toolbox**, **Field List** and **Property Grid**. These elements allow you add controls to your report, bind them to data and change their appearance and behavior settings, respectively.

To learn more about these and other elements used in the Report Designer, use the following links.

• <u>Report Designer UI</u>

The documents in this section are dedicated to the elements of the Report Designer user interface.

• <u>Report Controls</u>

The documents in this section describe options of each report control available in the Report Designer.

- <u>Report Bands</u> The documents in this section details the available kinds of report bands and their settings.
- <u>Report Settings</u>

This document details settings that affect the entire report.

# **Report Designer UI**

The documents in this section are dedicated to the elements of the Report Designer user interface.

The Report Designer interface is comprised of the following elements.

### **General Elements**

- <u>Control Toolbox</u>
- Design Panel
- Main Menu

### **Quick Access Tools**

- <u>Context Menu</u>
- Smart Tag

## Toolbars

- Main Toolbar
- Formatting Toolbar
- Layout Toolbar
- Zoom Toolbar

### **Dock Panels**

- Field List
- Group and Sort Panel
- Property Grid
- <u>Report Explorer</u>
- <u>Scripts Errors Panel</u>

### Tabs

- Designer Tab
- Preview Tab
- HTML View Tab
- <u>Scripts Tab</u>

## **Additional Elements**

- <u>Component Tray</u>
- Status Bar

## **Component Tray**

The **Component Tray** shows components (non-visual report helpers) whose primary purpose is to <u>bind a report to</u> <u>data</u>. You can click them to display and edit their settings using the <u>Property grid</u>.

	Property Grid	×	
🎲 products Table Adapter 🛛 🎲 nwind Data Set 1	nwindDataSet1 RDplay.nwindDataSet		
	. 🔡 2↓		
	Data		
	CaseSensitive	False	
	DataSetName	nwindDataSet	
	Locale	English (United States)	
	Prefix		
	Design	*	
	(Name)	nwindDataSet1	
	Misc	*	
	EnforceConstraints	True	
	RemotingFormat	Xml	
	SchemaSerializationMode	IncludeSchema	

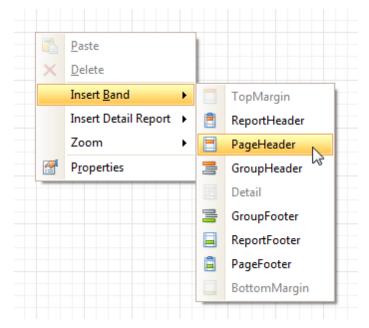
### Note

Component management and data binding configuration are usually performed by system administrators or your application vendor, since these areas require advanced knowledge of database connectivity. You will rarely, if ever, need to access component settings when modifying existing reports.

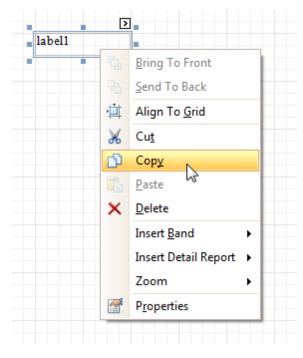
See Also Status Bar

## Context Menu

The Context Menu can be invoked by the right-clicking a report...



... or its elements (<u>bands</u> and <u>controls</u>). This menu provides quick access to frequently used commands (e.g. zooming, clipboard operations, inserting bands, etc.) The available action set varies, depending on the element where you invoked the Context Menu.



See Also Smart Tag

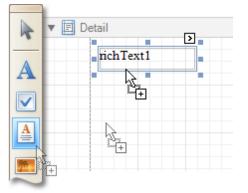
## **Control Toolbox**

The **Control Toolbox** lists all available <u>controls</u> and allows you to add them to your report.

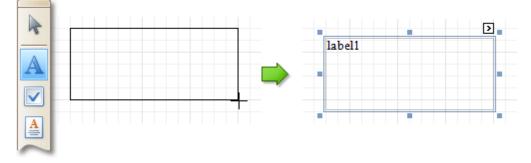


To add a control from the Toolbox, do one of the following.

- Double-click an item in the Toolbox for the appropriate control, which will be created at the <u>Detail band</u>'s top left corner.
- Drag and drop an item from the Toolbox onto the required location within a report.



- Select an item in the Toolbox, and then click the required location within a report.
- Select an item in the Toolbox, and then indicate the bounding rectangle by holding the left mouse button.



Select the **Pointer** item when you need to perform selection, re-positioning or resizing operations. It is automatically selected after you drop a control onto a report.

If the Toolbox is hidden, you can enable it in the Main Menu, by selecting View | Toolbars | Toolbox.

See Also Design Panel

# Design Panel

The **Design Panel** is the Report Designer's main area, where a report is being constructed and previewed.

Report1*	* 🖾 Report2 Report3 Report4 Report5
ы	· · · · · · · · · · · · · · · · · · ·
•	
-	
=	ReportHeader [one band per report]     GroupHeader1
=	Groupheader
	[ProductName] [UnitPrice]
	▼ ≡ GroupFooter1
	Sum([UnitPrice] )
	Sum([Ontrice])
1	
<	
🗗 m	yDataSet 💁 ProductsTableAdapter
対 Desig	gner 🛛 😡 Preview 🤣 HTML View 🛛 💱 Scripts 🛛 Report1 100% 🗆 💳 🗊 🛨

On the <u>Designer Tab</u>, multiple reports can be opened at once (each in its own Design Panel).

The Design Panel provides the following tabs (switched at the bottom).

- <u>Designer Tab</u> Allows you to modify your report.
- <u>Preview Tab</u> Shows a print preview, and enables you to print out your report or export it to a file on disk.
- <u>HTML View Tab</u> Shows the report output in HTML format.
- <u>Scripts Tab</u> Allows you to manage your report's scripts.

```
See Also
```

<u>Control Toolbox</u>

# Designer Tab

The **Designer Tab** allows you to customize a report, manage its <u>bands</u> and <u>controls</u> and define their properties.

D	
1	
-	
=	ReportHeader [one band per report]
=	▼ 🚍 GroupHeader1
ŀ	Category: [CategoryID]
≡	▼ 🗐 Detail
•	[ProductName] [UnitPrice]
=	▼ 🚟 GroupFooter1
•	Units Count: Count( [UnitPrice] )
≡	▼
•	Total Count: Count( [ProductName] )
-	
1	
-	
M	Designer 😡 Preview 🥺 HTML View 😵 Scripts Zoom Factor: 100%

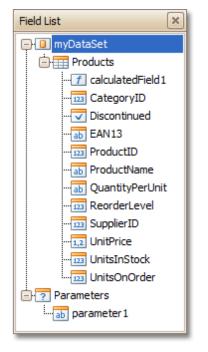
#### See Also

Preview Tab HTML View Tab Scripts Tab

## Field List

The **Field List** window serves the following purposes.

- Displays the list of all available data fields (attributes you can show in your report) and allows you to create report elements that will show information from these fields.
- Allows you to <u>create calculated fields</u> by building expressions based on the values of data fields, report parameter values, etc.
- Shows existing report parameters, and allows you to add parameters to your report.



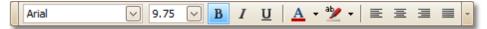
If the Field List is hidden, you can enable it in the Main Menu, by selecting View | Windows | Field List.

See Also

Group and Sort Panel Property Grid Report Explorer Scripts Errors Panel

## **Formatting Toolbar**

The Formatting Toolbar allows you to easily customize an element's font, color and alignment settings.



If the Formatting Toolbar is hidden, you can enable it in the <u>Main Menu</u>, by selecting **View** | **Toolbars** | **Formatting Toolbar**.

See Also

<u>Layout Toolbar</u> <u>Main Toolbar</u> Zoom Toolbar

# **Group and Sort Panel**

The Group and Sort Panel allows you to quickly apply grouping and sorting to your report data.

Group and Sort 🛛 🗙				
🚰 Add a Group 🛛 Add a Sort 🗙 Delete 🛛 🞯 Move Up 🞯 Move Down				
Field Name	Sort Order	Show Header	Show Footer	
CategoryID	Ascending			
SupplierID 🔽	Descending			
ProductName	Ascending			

To create a new grouping or sorting criterion, simply click Add a Group or Add a Sort.

Then, to control whether the corresponding <u>Group Header or Footer band</u> should be seen, use the **Show Header** and **Show Footer** check boxes.

An ascending or descending grouping (sorting) mode is specified via the **Sort Order** drop-down list.

You can change the order in which multiple grouping and sorting criteria are to be performed, via the **Move Up** and **Move Down** buttons.

To remove a grouping or sorting criterion, select it, and click **Delete**.

### 

If the Group and Sort Panel is hidden, you can enable it in the <u>Main Menu</u>, by selecting **View** | **Windows** | **Group and Sort**.

### See Also

<u>Change or Apply Data Grouping to a Report</u> <u>Change or Apply Data Sorting to a Report</u> <u>Field List</u> <u>Property Grid</u> <u>Report Explorer</u> <u>Scripts Errors Panel</u>

# **HTML View Tab**

The **HTML View Tab** allows you to preview the HTML output of a report.

Category: 1	<b>_</b>
Chai	\$18.00
Chang	\$19.00
Sasquatch Ale	\$14.00
Steeleye Stout	\$18.00
Côte de Blaye	\$263.50
Chartreuse verte	\$18.00
Ipoh Coffee	\$46.00
Laughing Lumberjack Lager	\$14.00
Outback Lager	\$15.00
Lakkalikööri	\$18.00
Category: 2	
Aniseed Syrup	\$10.00
Chef Anton's Cajun Seasoning	\$22.00
Chef Anton's Gumbo Mix	\$21.35
Northwoods Cranberry Sauce	\$40.00
Genen Shouyu	\$15.50
Gula Malacca	\$19.45
😡 Designer 🛛 😡 Preview 🚱 HTML	View Scripts

See Also

Designer Tab Preview Tab Scripts Tab .

## Layout Toolbar

The **Layout Toolbar** allows you to easily align report elements to one another, change their size to match one another and customize spacing and z-order.

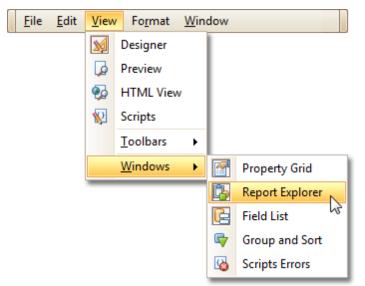


If the Layout Toolbar is hidden, you can enable it in the Main Menu, by selecting View | Toolbars | Layout Toolbar

See Also Formatting Toolbar Main Toolbar Zoom Toolbar

## Main Menu

The **Main Menu** contains various commands grouped in four sub-menus. These menu items duplicate various commands available in the Report Designer's Toolbars, and allow you to switch between different Tabs, and hide or show the available Toolbars and Panels.



To switch focus on the Main Menu, press ALT.

# Main Toolbar

The **Main Toolbar** contains buttons which provide the capability to create new reports, save and load report layouts, cut, copy and paste report elements, and undo-redo actions in the Report Designer.

If the Main Toolbar is hidden, you can enable it in the Main Menu, by selecting **View** | **Toolbars** | **Main Toolbar**.

See Also Formatting Toolbar Layout Toolbar Zoom Toolbar

## **Preview Tab**

The **Preview Tab** is intended to check the print output of a report and customize its additional options.

83 🖻	<b>) 🔒   8' 8 </b>	🎍 🖪   १	7 🔍 🍳 50%	V 🔍 🛛 🕅	
	1				
	Category:1		-		
	Chal	\$18.00	Charg	\$19.00	
	Basquath Ae	\$14.00	Steeleye Sbut	\$18.00	
	Côte de Blaye	\$263.50	Chartreuse vete	\$18.00	
	Ipoh Coffee	\$46.00	Laughing Lumberjack Lager	\$14.00	
	Outback Lager	\$15.00	Lakkalköör	\$18.00	
	Category:2				
	Aniseed Byop	\$10.00	Chef Anton's Cajun Sessoring	\$22.00	
	Chef Anton's Gunto Mx	\$21.35	Northwoods Cranberty Sauce	\$40.00	
	Genen Shoyu	\$15.50	Gula Malacca	\$19.45	
	Sirop d'érable	\$28.50	Vegle-speed	\$43.90	
	Category:3				
	Paviora	\$17.45	SirRodney's Marmalate	\$81.00	
	SirRodney's Scores	\$10.00	NuNuCa NuS-Nougat-Cerre	\$14.00	
	GumbärGummibärchen	\$31.23	Schoggi Schokdade	\$43.90	and the second second
ere e é	Chocolade	\$12.75	Mexileku	\$20.00	and the second second
	Valkoinen sukka	\$16.25	Tarte au sucie	\$49.30	
	Scottish Longbeads	\$12.50			100000
	Category:4				
	Queso Cabrales	\$21.00	Queso Manchego La Pastra	\$38.00	
	Gorgonzola Telho	\$12.50	Mascarpone Fabbl	\$32.00	
	Raclette Courdavaut	\$55.00	Comembert Plent	\$34.00	
	Gudbrandsdalsost	\$36.00	Flotemyset	\$21.50	
	Mozzarella di Giovani	\$34.80			
	Category:6				
20122	Gustafs Knäckeböd	\$21.00	Singaporean Hokklen Red Mee	\$14.00	
	Gnocchi di noma Alce	\$38.00	Reviol Ando	\$19.50	
	Wimmers gute Semmekrödel	\$33.25			×
🕺 Designer 🛛 🔂 Preview 🤣 HTML View 🛛 😡 Scripts 🛛 Page 1 of 2					

To learn more about print preview capabilities, refer to the Print Preview topic.

#### See Also

Designer Tab HTML View Tab Scripts Tab

# **Property Grid**

The **Property Grid** allows you to change the settings of the currently selected report element.

Property Grid				
label4 Label				
ê≣ <b>2</b> ↓				
(Name)	label4			
Anchor Vertically	None 🗸 🖃			
Angle	0			
Auto Width	No			
Background Color	Transparent			
Bookmark	✓			
Anchor Vertically Gets or sets the vertical anchoring style of a report's control.				

To select an element and show its properties within the Property Grid, do one of the following.

- Click the required element on the Report Designer surface.
- Select an element using the <u>Report Explorer</u> window.
- Select an element from the Property Grid's combo box.

To reset a property value, right-click this property, and in the invoked menu, click **Reset**.

Property Grid	:			
label1 Label	]			
₽∎ 2↓				
Appearance 🔺 🤦	]			
Background Color Transparent	J			
Border Color				
Border Width	•]			
Border Color Gets or sets the control's border color.				

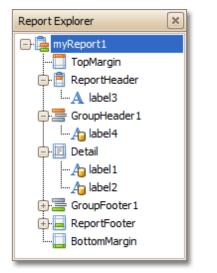
If the Property Grid is hidden, you can enable it in the <u>Main Menu</u>, by selecting **View** | **Windows** | **Property Grid**.

## See Also

Field List Group and Sort Panel Report Explorer Scripts Errors Panel

## **Report Explorer**

The **Report Explorer** shows a report's structure in a tree form, providing easy access to report elements. Once an element has been selected in the Report Explorer, it's settings can be changed using the <u>Property Grid</u>.



If the Report Explorer is hidden, you can enable it in the <u>Main Menu</u>, by selecting **View** | **Windows** | **Report Explorer**.

#### See Also

<u>Field List</u> <u>Group and Sort Panel</u> <u>Property Grid</u> <u>Scripts Errors Panel</u>

# **Scripts Errors Panel**

The Scripts Errors Panel displays the result of scripts validation after it's forced in the Scripts Tab.

Then, if errors are located, they are listed in this panel. To get to the corresponding line of code, click the corresponding item in the panel's list.

Scripts Errors		
Line	Column	
3	17	
3	28	
	3	

Or, if all scripts are valid, the panel reports this.

Scripts Errors X			
Description	Line	Column	
All scripts ar	e valid.		

For more information, refer to <u>Handle Events via Scripts</u>.

## See Also

Field List Group and Sort Panel Property Grid Report Explorer

## Scripts Tab

The **Scripts Tab** allows you to manage your report's scripts. It provides centralized access to all the scripts being written for a report or any of its elements (<u>bands</u> and <u>controls</u>).

label1 La	abel 🖂 After Print 🖂 🗹 Valid	late
1	k -	^
2	<pre>private void Detail_BeforePrint(object sender,</pre>	
3	System.Drawing.Printing.PrintEventArgs e) {	
4	// Write your script here	
5	}	
6		
7		
8	private void label1 AfterPrint(object sender,	=
9	System.EventArgs e) {	_
	System. Eventarys e) (	
10	// Write your script here	
_		
10	// Write your script here	
10 11	// Write your script here	
10 11	// Write your script here	
10 11	// Write your script here	
10 11	// Write your script here	
10 11	// Write your script here	~

The built-in scripts validation capability is provided in this tab. After clicking **Validate**, the result is displayed in the <u>Scripts Errors Panel</u>.

For more information, refer to Handle Events via Scripts.

See Also Designer Tab

<u>Preview Tab</u> HTML View Tab

# Smart Tag

Most report elements have **Smart Tags** that provide easy access to the most frequently used settings. Clicking an element's Smart Tag invokes an actions list with action links and editors, allowing you to customize this element.

## Report Smart Tag

A report's Smart Tag icon is located at the top left corner of the <u>Design Panel</u>.

Report Tasks				
Design in Report Wizard				
Edit and Reorder Bands				
Data Source	myDataSet	~		
Data Member	Products	$\checkmark$		
Data Adapter	ProductsTableAdapter	~		
Filter String				
Print when Data Source is Empty				
Detail Print Count when Data Source is Empty	1	<b>^</b>		
Detail Print Count	0	* *		
Measure Units	Hundredths of an Inch	~		
Formatting Rules	(Collection)			
Formatting Rule Sheet	(Collection)			
Style Sheet	(Collection)			
Watermark	(None)			

#### • Band Smart Tag

A band's Smart Tag icon is located on the band strip right next to its caption. For instance, the Smart Tag for the <u>Page Header</u> is shown in the following image.

🔻 📃 PageHeader [one band per page] 🔇	Page Header Tasks	
	Edit and Reorder Bands	
	Print On Not with Report Header	
	Formatting Rules (Collection)	

## • Control Smart Tag

A control's Smart Tag icon is located at the top right corner of the control. For instance, the Smart Tag for the <u>Rich Text</u> control is shown in the following image.

richText1	Rich Text Tasks	
	Edit Text	
T	Clear	
	Load File	
	Data Binding (None)	$\checkmark$
	Angles Verfaglis	
	Anchor Vertically None	$\sim$
	Formatting Rules (Collection)	
	Formatting Rules (Collection)	
	Can Grow	
	Can Shrink	

## And, this is the Smart Tag for the <u>Picture Box</u> control.

Picture Box Tasks	Picture Box Tasks		
Image	(none)		
Data Binding	(None)		
Image URL			
Sizing	Normal		
Anchor Vertically	None		
Formatting Rules	(Collection)		

See Also Context Menu

## Status Bar

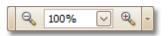
The **Status Bar** is located at the bottom of the Report Designer, and displays hints about currently selected commands in the <u>Main Menu</u> or toolbars.

Undo the last operation

See Also Component Tray

# Zoom Toolbar

The **Zoom Toolbar** allows you to zoom a report in and out, providing easier control over report's layout.



If the Zoom Toolbar is hidden, you can enable it in the Main Menu, by selecting View | Toolbars | Zoom Toolbar.

See Also Formatting Toolbar Layout Toolbar Main Toolbar

## **Report Controls**

The documents in this section describe options of each report control available in the Report Designer.

In general, *report controls* allow you to represent information of different kinds (e.g. simple or formatted text, pictures, tables, etc.) in you report both <u>static</u> and <u>dynamic</u>, and to adjust your report's layout (by organizing controls within panels, and inserting page breaks at the required positions).

In the Report Designer, the available controls are listed in the <u>Control Toolbox</u> from which they are dropped onto the required <u>bands</u>.

You also can extend the standard functionality of each control by writing scripts for its available events.

This document consists of the following sections.

- <u>Available Controls</u>
- Add Controls to a Report

#### **Available Controls**

The following table lists the available controls (in the same order as in the <u>Control Toolbox</u>). For each control's options description, refer to the corresponding document.

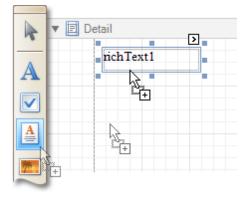
<u>Label</u>	The most basic <b>Label</b> control is intended to display text in your report. It can represent <u>static</u> or <u>dynamic</u> text, or <u>both</u> . In addition, it can be used to calculate standard summary functions across a data field. The Label's text can only be formatted as a whole. So, if it's required to differently format parts of text, use the <u>Rich Text</u> control.
<u>Check Box</u>	The <b>Check Box</b> control is intended to display True/False or Checked/ Unchecked/Indeterminate states in a report, by displaying (or not) a check mark, which can be accompanied by a text description.
Rich Text	The <b>Rich Text</b> control allows you to display formatted text in your report. It can represent <u>static</u> or <u>dynamic</u> text, or <u>both</u> . You can load content to the Rich Text from an external TXT or RTF file (which can also contain images) and then format any part of it. The formatting options include font face, styles and sizes, and color.
<u>Picture Box</u>	The <b>Picture Box</b> control is intended to display images of numerous formats in a report. An image can be loaded from an external file, from a <u>bound data</u> <u>source</u> , or from a web location using the specified URL.
Panel	The <b>Panel</b> control is a container that frames separate report

		controls to allow them to be easily moved, copied and pasted, and visually unite them in the report's preview (with borders or a uniform color background).
	Table	The <b>Table</b> control is designed to arrange information in a <u>tabular</u> <u>layout</u> . It may contain any number of <u>Rows</u> comprised of individual <u>Cells</u> . Both Rows and Cells can be selected and customized individually. In most aspects, a Cell is similar to a <u>Label</u> , but can also contain other controls (e.g. <u>Picture</u> <u>Box</u> or <u>Rich Text</u> ).
	Line	The <b>Line</b> control draws a line of a specified direction, style, width and color. It can be used for both decoration and visual separation of a report's sections. The Line cannot cross <u>bands</u> , as opposed to the <u>Cross-band Line</u> control.
	<u>Shape</u>	The <b>Shape</b> control allows you to embed simple graphic objects into your report. You can choose one of multiple predefined shapes (e.g. rectangles, ellipses, arrows, polygons, crosses and brackets of various kinds).
	Bar Code	The <b>Bar Code</b> control transforms its content into a bar code of the specified type. Multiple standard bar code symbologies are supported.
38	Zip Code	The <b>Zip Code</b> control transforms its content into a zip code. The width of a zip code's segment is adjustable.
	<u>Chart</u>	The <b>Chart</b> is a sophisticated control used to embed graphs into your report. It graphically represents a <i>series</i> of <i>points</i> using numerous 2D or 3D chart types. A Chart can be populated with points both <i>manually</i> (by specifying <i>arguments</i> and <i>values</i> for each point) and <i>dynamically</i> (by connecting it to the report's data source, or binding it to a separate one).
Σ	Pivot Grid	The <b>Pivot Grid</b> control represents dynamic data (obtained from an underlying data source) in a cross- tabulated form to create <u>cross-tab</u> <u>reports</u> , similar to Pivot Tables in

Microsoft Excel®. Column headers display unique values from one data field, and row headers - from another field. Each cell displays a summary for the corresponding row and column values. By specifying different data fields, you can see different totals. This a allows you to get a compact layout for a complex data analysis.Image: InfoPage InfoThe Page Info control is intended to add page numbers and system information (the current date and time or the current user name) into you report. As with many other controls, you can format this control's content.Image: InfoPage BreakThe Page Break control's sole purpose is to insert a page delimiter at any point within a report.Image: InfoCross-band LineThe Cross-band Line control allows you to are a spects, it is similar to a regular Line.Image: InfoCross-band EoxThe Cross-band Eox control's and areas. In other aspects, it is similar to a regular Line.	display unique values from one data field, and row headers - from another field. Each cell displays a summary for the corresponding row and column values. By specifying different data fields, you can see different totals. This allows you to get a compact layout for a complex data analysis.Image: the total of the total of the total of the total of to			
Image: Second	Image:			display unique values from one data field, and row headers - from another field. Each cell displays a summary for the corresponding row and column values. By specifying different data fields, you can see different totals. This allows you to get a compact layout
Image: Cross-band Line       purpose is to insert a page delimiter at any point within a report.         Image: Cross-band Line       The Cross-band Line control allows you to draw a line through several bands. This can be useful if it is required to visually emphasize a section consisting of multiple band areas. In other aspects, it is similar to a regular Line.         Image: Cross-band Box       The Cross-band Box control allows you to draw a rectangle through several bands. This can be useful if it is required to visually emphasize a section consisting of multiple band areas. In other aspects, it is similar to a regular Line.	Image: Subreport       purpose is to insert a page delimiter at any point within a report.         Image: Subreport       Cross-band Line       The Cross-band Line control allows you to draw a line through several bands. This can be useful if it is required to visually emphasize a section consisting of multiple band areas. In other aspects, it is similar to a regular Line.         Image: Cross-band Box       The Cross-band Box control allows you to draw a rectangle through several bands. This can be useful if it is required to visually emphasize a section consisting of multiple band areas. In other aspects, it is similar to a regular Line.         Image: Cross-band Box       The Cross-band Box control allows you to draw a rectangle through several bands. This can be useful if it is required to visually encompass a section consisting of multiple band areas.         Image: Deliver the compase of		Page Info	to add page numbers and system information (the current date and time or the current user name) into your report. As with many other controls, you can format this
allows you to draw a line through several bands. This can be useful if it is required to visually emphasize a section consisting of multiple band areas. In other aspects, it is similar to a regular Line.         Cross-band Box       The Cross-band Box control allows you to draw a rectangle through several bands. This can be useful if it is required to visually encompass a section consisting of	Image: Subreport       Subreport         Image: Subreport       Subreport		Page Break	purpose is to insert a page delimiter at any point within a
allows you to draw a rectangle through several <u>bands</u> . This can be useful if it is required to visually encompass a section consisting of	Image: Subreport       Subreport         Subreport       The Subreport control allows you         The subreport in your       Subreport in your	ф. А	Cross-band Line	allows you to draw a line through several <u>bands</u> . This can be useful if it is required to visually emphasize a section consisting of multiple band areas. In other aspects, it is
multiple band areas.	to include other reports in your		Cross-band Box	allows you to draw a rectangle through several <u>bands</u> . This can be useful if it is required to visually encompass a section consisting of
to include other reports in your			Subreport	to include other reports in your

## Add Controls to a Report

To create a control, drag it from the <u>Toolbox</u> panel onto the report area.



To automatically create a control bound to data, drag a field from the <u>Field List</u> panel, and drop it onto a report's surface. When dropping a field onto an existing control, this control will be bound to the data field.

## **Report Designer**

Field List 🛛 🗶			
Categories CategoryID CategoryName Catego	label1		[CategoryName]

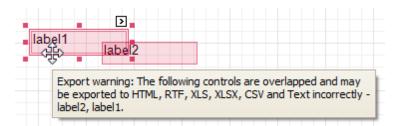
If you drag the field with the right mouse button, when the button is released the context menu is invoked. Use this menu to specify which control should be created.

Field List 🛛 🗙		
☐ 1 myDataSet ☐ 1 Categories	A Label	
- 123 CategoryID	Picture Box	•
- ab CategoryName	Rich Text	
ab Description 	Check Box	
	Bar Code	
Picture	Tip Code	
Parameters		

To learn more on data binding for report controls, refer to <u>Display Values from a Database (Bind Report Elements</u> to <u>Data</u>).

## Note

When controls overlap, the report may be shown incorrectly when <u>exported</u> to some formats. Red markers and a report tooltip will warn of this situation. You may switch off the red warning marks via the <u>report</u>'s **Show Export Warnings** property.



To learn how report controls can be relocated and resized, refer to <u>Change Element Layout in Your Report</u> and <u>Controls Positioning</u>.

## Label

The most basic **Label** control is intended to display text in your report. It can represent <u>static</u> or <u>dynamic</u> text, or <u>both</u>. In addition, it can be used to calculate standard summary functions across a data field. The Label's text can only be formatted as a whole. So, if it's required to differently format parts of text, use the <u>Rich Text</u> control.



After a Label is added to a report, you can customize its text, appearance and other properties, which can be accessed in the <u>Property Grid</u>. The most important properties are also available via a control's <u>Smart Tag</u>, which makes it easy to perform common operations. And, the <u>Formatting Toolbar</u> allows you to easily adjust a Label's text formatting.

In the Property Grid, the Label control's properties are divided into the following groups.

## Appearance

## Background Color

Specifies the background color for the control. This option is also available in the Formatting Toolbar (...).

• Borders, Border Color and Border Width

Specify border settings for the control.

• Font

Specifies the font settings for the control. Some of these settings are available in the Formatting Toolbar.

• Foreground Color

Specifies the text color for the control. This option is also available in the Formatting Toolbar ( $\Delta$ ).

• Formatting Rules

Invokes the Formatting Rules Editor, allowing you to choose which rules should be applied to the control during report generation, and define the precedence of the applied rules. To learn more on this, refer to <u>Conditionally Change a Control's Appearance</u>.

## • Padding

Specifies indent values which are used to render the contents of a Label.

• Style Priority

Specifies the priority of various style elements (such as background color, border color, etc.). For more information on style inheritance, refer to <u>Understand Styles Concepts</u>.

## Styles

Specifies <u>odd and even styles</u> for the control, as well as to assign an existing style to the control (or a newly created one). For more information on style inheritance, refer to <u>Understand Styles Concepts</u>.

• Text Alignment

Specifies the alignment of the control's text. This option is also available in the Formatting Toolbar.

## Behavior

## • Anchor Vertically

Specifies the vertical anchoring style of a Label, so that after page rendering it stays attached to the top control, bottom control, or both. The property setting is useful for data-bound Labels located between upper and lower controls, which are allowed to resize depending on their contents.

Note that if the Anchor Vertically property is set to Bottom or Both, the Can Grow and Can Shrink property (see below) values are ignored, and don't participate in calculating a final height value of this control.

#### Angle

Specifies the rotation angle of the text. The measurement unit is a degree, and the orientation is counterclockwise. Since standard HTML does not support text orientation, this parameter is ignored when a report is displayed within a web page.

## • Auto Width

Specifies whether or not a Label's width should be automatically determined based on its text.

## Can Grow

When this property is set to Yes, a Label's height can be automatically increased, if required, to display the text. If there are other controls below the current Label, they will be pushed down to prevent them from overlapping. Note that if a control overlaps the growing Label by even one pixel, it will not be pushed down by the growing Label.

## • Can Shrink

When this property is set to Yes, and the text does not completely fill a Label, then the Label's height will be decreased to the height of its text. If there are other controls below the current Label, they will be moved up to fill the gap. Note that if a control overlaps the shrinking Label by even one pixel, it will not be pushed up by the shrinking Label.

#### • Keep Together

Specifies whether the contents of a Label can be horizontally split across pages. In other words, if a Label occupies more space than remains on the page, this property specifies whether this Label should be split between the current page and the next, or whether it will be printed entirely on the next page. This property is in effect only when a Label's content does not fit on the current page. If it does not fit on the next page either, then the Label will be split, irrespective of this property's value.

#### Multiline

When this property is set to Yes, a Label processes newline characters found in the text to start a new line. For example, when editing a Label's text, you can insert a new line by pressing ENTER, and in this case, the Multiline property will be automatically set to Yes.

#### • Process Duplicates

Determines the control's behavior when its data source contains consecutive repeating records. They can be processed as is (when the property is set to Leave), suppressed except for the first entry(Suppress) and suppressed with the blank space printed instead of the repeated records (Suppress and Shrink).

#### • Process Null Values

Determines whether to process Null (blank) values if they appear in the control's data source. They can be processed as is (when the property is set to Leave), suppressed (Suppress) and suppressed with the blank space printed instead of the blank records (Suppress and Shrink).

#### Scripts

This property contains events, which you can handle with the required scripts. For more information on scripting, refer to <u>Handle Events via Scripts</u>.

## Visible

Specifies whether the control should be visible in print preview.

#### • Word Wrap

When this property is set to Yes, text entered into the multiline Label is wrapped to the next line if it doesn't fit the line or comes across a newline character. If the this property is set to No, text entered into the multiline Label will be displayed on the same line until a newline character is entered.

#### Data

## • (Data Bindings)

If the current report is <u>bound to data</u>, this property allows you to bind some of the control's properties (Bookmark, Navigation URL, Tag and Text) to a data field obtained from the report's data source, and to apply a <u>format string</u> to it. For more information on this, refer to <u>Display Values from a Database (Bind</u> <u>Report Elements to Data</u>).

#### Lines

Provides access to the Text property of a Label in the Multiline mode.

#### • Summary

Allows you to perform calculations (summary, max, min, average, etc.) over a data field. For more information on calculating summaries, refer to <u>Add Totals to a Report</u>.

## Note

Summarization is possible for a single data column only. To perform calculations with several data fields, use <u>calculated fields</u>.

• Tag

This property allows you to add some additional information to the control; for example its id, by which it can then be accessible via <u>scripts</u>.

If the current report <u>has a data source</u>, the Tag property can be bound to a data field obtained from the data source. To do this, expand the (Data Bindings) property and in the Tag.Binding drop-down selector, select the required data field.

#### • Text

Allows you to define a line of static text to be displayed. To type several lines of text, click the control's <u>Smart Tag</u>, and in the invoked actions list, click Edit Text, or use the Lines property. Note that when a Label is selected in the designer, you may simply start typing the text, and it will be automatically entered into the in-place editor.

				2
∎ ty	pe in ri	ght in-pla	ace T	
			Ţ	

If the current report <u>has a data source</u>, the Text property can be bound to a data field obtained from the data source. To do this, expand the (Data Bindings) property and in the Text.Binding drop-down selector, select the required data field. For more information on this, refer to <u>Display Values from a Database (Bind</u> <u>Report Elements to Data</u>).

#### • Xlsx Format String

Specifies the native XLSX format string for the control's content, which is to be preserved when the report is being <u>exported</u> to XLSX. This format string is independent from the general <u>value formatting</u>.

#### Design

#### • (Name)

Determines a control's name, by which it can be accessed in the <u>Report Explorer</u>, <u>Property Grid</u> or via <u>scripts</u>.

#### Layout

#### • Location

Specifies the control's location, in report measurement units.

Size

Specifies the control's size, in report measurement units.

• Snap Line Margin

Specifies the margin (in <u>report measurement units</u>), which is to be preserved around the control when it is <u>aligned using Snap Lines</u>, or when other controls are aligned next to it.

#### Navigation

## • Bookmark and Parent Bookmark

These properties are intended for the creation of a hierarchical structure within a report called a document map. For an explanation and help, refer to <u>Add Bookmarks</u>.

If the current <u>report has a data source</u>, the Bookmark property can be bound to a data field, obtained from the data source. To do this, expand the (Data Bindings) property, and in the Bookmark.Binding drop-down selector, select the required data field.

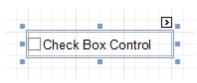
#### • Navigation URL and Navigation Target

Use the Navigation URL property to specify a URL for web browser navigation, when a user clicks a Label. The web browser displays a page in a window or a frame as specified by the Navigation Target property. Note that a URL should have an appropriate prefix (e.g. "http://"). You can create cross-references within the report by assigning the name of the target control to the Navigation URL property, and setting the Navigation Target property to "\_self". For more information, refer to <u>Create Hyperlinks</u>.

If the current <u>report has a data source</u>, the Navigation URL property can be bound to a data field obtained from the data source. To do this, expand the (Data Bindings) property, and in the Navigation URL.Binding drop-down selector, select the required data field.

# Check Box

The **Check Box** control is intended to display True/False or Checked/Unchecked/Indeterminate states in a report, by displaying (or not) a check mark, which can be accompanied by a text description.



In the <u>Property Grid</u>, the Check Box control's properties are divided into the following groups.

## Appearance

## • Background Color

Specifies the background color for the control. This option is also available in the Formatting Toolbar (#).

- Borders, Border Color and Border Width Specify border settings for the control.
- Font

Specifies the font settings for the control. Some of these settings are available in the Formatting Toolbar.

• Foreground Color

Specifies the text color for the control. This option is also available in the Formatting Toolbar ( $\Delta$ ).

• Formatting Rules

Invokes the Formatting Rules Editor allowing you to choose which rules should be applied to the control during report generation, and define the precedence of the applied rules. To learn more on this, refer to <u>Conditionally Change a Control's Appearance</u>.

• Padding

Specifies indent values which are used to render the contents of a Check Box.

• Style Priority

Allows you to define the priority of various style elements (such as background color, border color, etc.). For more information on style inheritance, refer to <u>Understand Styles Concepts</u>.

Styles

This property allows you to define <u>odd and even styles</u> for the control, as well as to assign an existing style to the control (or a newly created one). For more information on style inheritance, refer to <u>Understand Styles Concepts</u>.

## • Text Alignment

Allows you to change the alignment of the control's text. This option is also available in the <u>Formatting</u> <u>Toolbar</u>.

## Behavior

## • Anchor Vertically

Specifies the vertical anchoring style of the control, so that after page rendering it stays attached to the top control, bottom control, or both. The property setting is useful for data-bound Check Boxes located between upper and lower controls, which are allowed to resize depending on their contents.

Keep Together

Specifies whether the contents of a Check Box can be horizontally split across pages. In other words, if a Check Box occupies more space than remains on the page, this property specifies whether this Check Box should be split between the current page and the next, or whether it will be printed entirely on the next page. This property is in effect only when a Check Box's content does not fit on the current page. If it does not fit on the next page either, then the Check Box will be split despite this property's value.

## Scripts

This property contains events, which you can handle with the required scripts. For more information on scripting, refer to <u>Handle Events via Scripts</u>.

• Visible

Specifies whether the control should be visible in print preview.

#### • Word Wrap

When this property is set to Yes, text entered into a Check Box is wrapped to the next line if it doesn't fit the line.

#### Data

## • (Data Bindings)

If the current report is <u>bound to data</u>, this property allows you to bind some of the control's properties (Bookmark, Check State, Navigation URL, Tag and Text) to a data field obtained from the report's data source, and to apply a <u>format string</u> to it. For more information on this, refer to <u>Display Values from a</u> <u>Database (Bind Report Elements to Data)</u>.

#### Check State

This property allows you to quickly specify the Checked/Unchecked/Indeterminate state of a Check Box (the Indeterminate state is displayed as a grayed out checked box.) Note that if you only want to use Checked and Unchecked states, you may use the Checked property, instead.

#### Checked

This property allows you to define whether a Check Box is checked or not.

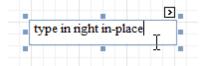
#### • Tag

This property allows you to add some additional information to the control; for example its id, by which it can then be accessible via <u>scripts</u>.

If the current <u>report has a data source</u>, the Tag property can be bound to a data field obtained from the data source. To do this, expand the (Data Bindings) property and in the Tag.Binding drop-down selector, select the required data field.

#### • Text

Allows you to define a line of static text to be displayed. Note that when a Check Box is selected in the designer, you may simply start typing the text, and it will be automatically entered into the in-place editor.



If the current <u>report has a data source</u>, the Text property can be bound to a data field obtained from the data source. To do this, expand the (Data Bindings) property, and in the Text.Binding drop-down selector, select the required data field. For more information on this, refer to <u>Display Values from a Database (Bind</u> <u>Report Elements to Data</u>).

#### • Xlsx Format String

Specifies the native XLSX format string for the control's content, which is to be preserved when the report is being <u>exported</u> to XLSX. This format string is independent from the general <u>value formatting</u>.

## Design

#### • (Name)

Determines a control's name, by which it can be accessed in the <u>Report Explorer</u>, <u>Property Grid</u> or via <u>scripts</u>.

## Layout

#### Location

Specifies the control's location, in <u>report measurement units</u>.

Size

Specifies the control's size, in <u>report measurement units</u>.

## • Snap Line Margin

Specifies the margin (in <u>report measurement units</u>), which is to be preserved around the control when it is <u>aligned using Snap Lines</u>, or when other controls are aligned next to it.

## Navigation

## • Bookmark and Parent Bookmark

These properties are intended for the creation of a hierarchical structure within a report called a document map. For an explanation and help, refer to <u>Add Bookmarks</u>.

If the current <u>report has a data source</u>, the Bookmark property can be bound to a data field obtained from the data source. To do this, expand the (Data Bindings) property and in the Bookmark.Binding drop-down selector, select the required data field.

## • Navigation URL and Navigation Target

Use the Navigation URL property to specify a URL for web browser navigation when a user clicks a Check Box. The web browser displays a page in a window or a frame as specified by the Navigation Target property. Note that a URL should have an appropriate prefix (e.g. "http://"). You can create cross-references within the report by assigning the name of the target control to the Navigation URL property, and setting the Navigation Target property to "\_self". For more information, refer to <u>Create Hyperlinks</u>.

If the current <u>report has a data source</u>, the Navigation URL property can be bound to a data field obtained from the data source. To do this, expand the (Data Bindings) property and in the Navigation URL.Binding drop-down selector, select the required data field.

## Rich Text

The **Rich Text** control allows you to display formatted text in your report. It can represent <u>static</u> or <u>dynamic</u> text, or <u>both</u>. You can load content to the Rich Text from an external TXT or RTF file (which can also contain images) and then format any part of it. The formatting options include font face, styles and sizes, and color.



A content from an external TXT or RTF file can be loaded to this control via its Smart Tag.

richText1	Rich Text Tasks	
	Clear <u>Load File</u>	
	Data Binding	(None)
	Anchor Vertically	None
	Formatting Rules	(Collection)
	Can Grow	

In the <u>Property Grid</u>, the Rich Text control's properties are divided into the following groups.

#### Appearance

Background Color

Specifies the background color for the control. This option is also available in the Formatting Toolbar (".).

- Borders, Border Color and Border Width Specify border settings for the control.
- Font

Specifies the font settings for the control. Some of these settings are available in the Formatting Toolbar.

• Foreground Color

Specifies the text color for the control. This option is also available in the Formatting Toolbar ( $\Delta$ ).

• Formatting Rules

Invokes the Formatting Rules Editor allowing you to choose which rules should be applied to the control during report generation, and define the precedence of the applied rules. To learn more on this, refer to <u>Conditionally Change a Control's Appearance</u>.

Padding

Specifies indent values which are used to render the contents of the control.

• Style Priority

Allows you to define the priority of various style elements (such as background color, border color, etc.). For more information on style inheritance, refer to <u>Understand Styles Concepts</u>.

Styles

This property allows you to define <u>odd and even styles</u> for the control, as well as to assign an existing style to the control (or a newly created one). For more information on style inheritance, refer to <u>Understand Styles Concepts</u>.

## Behavior

## • Anchor Vertically

Specifies the vertical anchoring style of the control, so that after page rendering it stays attached to the top control, bottom control, or both. The property setting is useful for data-bound controls located between upper and lower controls, which are allowed to resize depending on their contents.

Note that if the Anchor Vertically property is set to Bottom or Both, the Can Grow and Can Shrink properties (see below) values are ignored, and don't participate in calculating a final height value of this control.

## Can Grow

When this property is set to Yes, the control's height can be automatically increased, if required, to display the text. If there are other controls below the current control, they will be pushed down to prevent them from overlapping. Note that if a control overlaps the growing Rich Text by even one pixel, it will not be pushed down by the growing Rich Text.

## • Can Shrink

When this property is set to Yes, and the text does not completely fill a Rich Text, then the control's height will be decreased to the height of its text. If there are other controls below the current one, they will be moved up to fill the gap. Note that if a control overlaps the shrinking Rich Text by even one pixel, it will not be pushed up by the shrinking Rich Text.

## • Keep Together

Specifies whether the contents of the control can be horizontally split across pages. In other words, if the control occupies more space than remains on the page, this property specifies whether this control should be split between the current page and the next, or whether it will be printed entirely on the next page. This property is in effect only when the control's content does not fit on the current page. If it does not fit on the next page either, then the control will be split despite this property's value.

## • Process Duplicates

Determines the control's behavior when its data source contains consecutive repeating records. They can be processed as is (when the property is set to Leave), suppressed except for the first entry(Suppress) and suppressed with the blank space printed instead of the repeated records (Suppress and Shrink).

## • Process Null Values

Determines whether to process Null (blank) values if they appear in the control's data source. They can be processed as is (when the property is set to Leave), suppressed (Suppress) and suppressed with the blank space printed instead of the blank records (Suppress and Shrink).

## • Scripts

This property contains events, which you can handle with the required scripts. For more information on scripting, refer to <u>Handle Events via Scripts</u>.

## • Visible

Specifies whether the control should be visible in print preview.

## Data

## • (Data Bindings)

If the current report is <u>bound to data</u>, this property allows you to bind some of the control's properties (Bookmark, Navigation URL, Rtf and Tag) to a data field obtained from the report's data source, and to apply a <u>format string</u> to it. For more information on this, refer to <u>Display Values from a Database (Bind</u> <u>Report Elements to Data)</u>.

## Lines

Provides access to the Text property of the control, allowing you to input multiple lines of static text.

## • Tag

This property allows you to add some additional information to the control; for example its id, by which it can then be accessible via <u>scripts</u>.

If the current <u>report has a data source</u>, the Tag property can be bound to a data field obtained from the data source. To do this, expand the (Data Bindings) property, and in the Tag.Binding drop-down selector, select the required data field.

## • Text

Allows you to define a line of static text to be displayed. To type several lines of text, use the Lines

property. Note that when the control is selected in the designer, you may simply start typing the text, and it will be automatically entered into the in-place editor.

2 type in right in-place 

If the current <u>report has a data source</u>, the Rtf property (instead of Text) can be bound to a data field obtained from the data source. To do this, expand the (Data Bindings) property and in the Rtf.Binding drop-down selector, select the required data field. For more information on this, refer to <u>Display Values</u> from a Database (Bind Report Elements to Data).

#### Design

#### • (Name)

Determines a control's name, by which it can be accessed in the <u>Report Explorer</u>, <u>Property Grid</u> or via <u>scripts</u>.

#### Layout

#### Location

Specifies the control's location, in report measurement units.

Size

Specifies the control's size, in <u>report measurement units</u>.

#### • Snap Line Margin

Specifies the margin (in <u>report measurement units</u>), which is to be preserved around the control when it is <u>aligned using Snap Lines</u>, or when other controls are aligned next to it.

#### Navigation

#### • Bookmark and Parent Bookmark

These properties are intended for the creation of a hierarchical structure within a report, called a document map. For an explanation and help, refer to <u>Add Bookmarks</u>.

If the current <u>report has a data source</u>, the Bookmark property can be bound to a data field obtained from the data source. To do this, expand the (Data Bindings) property and in the Bookmark.Binding drop-down selector, select the required data field.

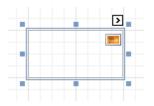
#### • Navigation URL and Navigation Target

Use the Navigation URL property to specify a URL for web browser navigation when a user clicks the control. The web browser displays a page in a window or a frame as specified by the Navigation Target property. Note that a URL should have an appropriate prefix (e.g. "http://"). You can create cross-references within the report by assigning the name of the target control to the Navigation URL property, and setting the Navigation Target property to "\_self". For more information, refer to <u>Create Hyperlinks</u>.

If the current <u>report has a data source</u>, the Navigation URL property can be bound to a data field obtained from the data source. To do this, expand the (Data Bindings) property, and in the Navigation URL.Binding drop-down selector, select the required data field.

## Picture Box

The **Picture Box** control is intended to display images of numerous formats in a report. An image can be loaded from an external file, from a <u>bound data source</u>, or from a web location using the specified URL.

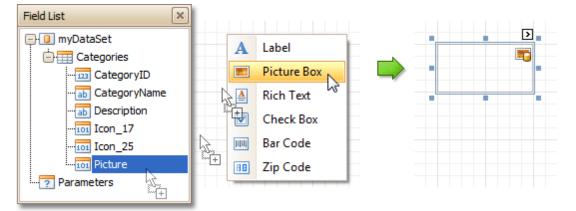


The following image formats are supported: BMP, DIB, RLE, JPG, JPEG, JPE, JFIF, GIF, EMF, WMF, TIF, TIFF, PNG and ICO.

To quickly load an image from an external file, use the control's Smart Tag.

Picture Box Tasks	
Image	(none)
Data Binding	(None)
Image URL	
Sizing	Normal
Anchor Vertically	None
Formatting Rules	(Collection)

To bind the control to a data field containing images, right-click the corresponding <u>Field List</u> item, and then drag and drop it onto a report. This will invoke the <u>Context Menu</u>, where you can choose the **Picture Box**, and it will be automatically created and bound to the selected data field.



In the <u>Property Grid</u>, the Picture Box control's properties are divided into the following groups.

## Appearance

• Background Color

Specifies the background color for the control.

Borders, Border Color and Border Width

Specify border settings for the control.

• Formatting Rules

Invokes the Formatting Rules Editor allowing you to choose which rules should be applied to the control during report generation, and define the precedence of the applied rules. To learn more on this, refer to

## Conditionally Change a Control's Appearance.

## Padding

Specifies indent values which are used to render the contents of the control.

#### • Style Priority

Allows you to define the priority of various style elements (such as background color, border color, etc.). For more information on style inheritance, refer to <u>Understand Styles Concepts</u>.

#### Styles

This property allows you to define <u>odd and even styles</u> for the control, as well as to assign an existing style to the control (or a newly created one). For more information on style inheritance, refer to <u>Understand Styles Concepts</u>.

#### Behavior

## • Anchor Vertically

Specifies the vertical anchoring style of the control, so that after page rendering it stays attached to the top control, bottom control, or both. The property setting is useful for data-bound controls located between upper and lower controls, which are allowed to resize depending on their contents.

#### • Keep Together

## • Scripts

This property contains events, which you can handle with the required scripts. For more information on scripting, refer to <u>Handle Events via Scripts</u>.

#### • Sizing

Defines the sizing mode of a contained image. To quickly adjust the image size and position within the control, click its Smart Tag, and choose **Sizing**.

Picture Box Tasks	
 Image	System.Drawing.Bitmap
Data Binding	(None)
Image URL	
Sizing	Normal
Anchor Vertically	Normal Stretch Image
Formatting Rules	Auto-Size
	Zoom Image Squeeze

The image sizing settings are briefly described in the following table.

Mode	Description
Normal	The image is placed in the upper-left corner of the control. The image is clipped if it is larger than the Picture Box which contains it.
Stretch Image	The image within the control is stretched or shrunk to fit the size of a Picture Box.
Auto-Size	The Picture Box size is adjusted to that of the image it contains.
Center Image	The image is displayed in the center of the control. If the image is larger than the Picture Box, the outer edges are clipped.

Zoom Image	The image is sized proportionally (without clipping) for best fit into the control.
Squeeze	If the dimensions of a Picture Box exceed that of the image it contains, the image is centered and shown full-size. Otherwise, the image is resized to fit into the Picture Box's dimensions.

## • Visible

Specifies whether the control should be visible in print preview.

#### Data

## • (Data Bindings)

If the current report is <u>bound to data</u>, this property allows you to bind some of the control's properties (Bookmark, Image, Image URL, Navigation URL and Tag) to a data field obtained from the report's data source, and to apply a <u>format string</u> to it. For more information on this, refer to <u>Display Values from a</u> <u>Database (Bind Report Elements to Data)</u>.

## • Image

Specifies an image to display in the Picture Box control.

When you click the ellipsis button, you will see the Open File dialog that enables you to specify the file to load. Then, this image is embedded into a report and saved within this report, so it is always available. Note that this increases the size of a <u>saved report definition</u>. If you want to save only the image path, and not the image itself, use the Image URL property instead.

## • Image URL

Specifies the URL of the image to display in the Picture Box control. It supports both absolute and relative paths. A relative path may be related to the Web site or to the current Web page. In the second case, the path to the image must start with the "~" symbol. Setting a relative path makes it easier to move the entire application to another directory on the server without having to update the code.

## • Tag

This property allows you to add some additional information to the control; for example its id, by which it can then be accessible via <u>scripts</u>.

If the current <u>report has a data source</u>, the Tag property can be bound to a data field obtained from the data source. To do this, expand the (Data Bindings) property and in the Tag.Binding drop-down selector, select the required data field.

## Design

## • (Name)

Determines a control's name, by which it can be accessed in the <u>Report Explorer</u>, <u>Property Grid</u> or via <u>scripts</u>.

## Layout

## Location

Specifies the control's location, in report measurement units.

## • Size

Specifies the control's size, in <u>report measurement units</u>.

## • Snap Line Margin

Specifies the margin (in <u>report measurement units</u>), which is to be preserved around the control when it is <u>aligned using Snap Lines</u>, or when other controls are aligned next to it.

## Navigation

## • Bookmark and Parent Bookmark

These properties are intended for the creation of a hierarchical structure within a report called a document map. For an explanation and help, refer to <u>Add Bookmarks</u>.

If the current <u>report has a data source</u>, the Bookmark property can be bound to a data field obtained from the data source. To do this, expand the (Data Bindings) property and in the Bookmark.Binding drop-down

selector, select the required data field.

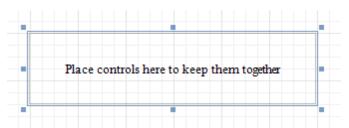
#### • Navigation URL and Navigation Target

Use the Navigation URL property to specify a URL for web browser navigation when a user clicks the control. The web browser displays a page in a window or a frame as specified by the Navigation Target property. Note that a URL should have an appropriate prefix (e.g. "http://"). You can create cross-references within the report by assigning the name of the target control to the Navigation URL property, and setting the Navigation Target property to "\_self". For more information, refer to <u>Create Hyperlinks</u>.

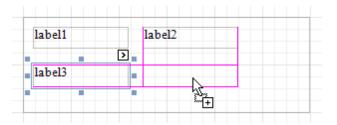
If the current <u>report has a data source</u>, the Navigation URL property can be bound to a data field obtained from the data source. To do this, expand the (Data Bindings) property and in the Navigation URL.Binding drop-down selector, select the required data field.

## Panel

The **Panel** control is a container that frames separate report controls to allow them to be easily moved, copied and pasted, and visually unite them in the report's preview (with borders or a uniform color background).



Currently, there are several limitations on Panel usage. One of them is that Panel cannot shrink, and therefore cannot suppress the white space that appears when the controls inside are shrunk or collapsed. Also, the Panel cannot cross <u>bands</u>, as <u>Cross-band Line</u> and <u>Cross-band Box</u> can do.



In the Property Grid, the Panel's properties are divided into the following groups.

#### Appearance

#### • Background Color

Specifies the background color for the control.

- Borders, Border Color and Border Width Specify border settings for the control.
- Formatting Rules

Invokes the Formatting Rules Editor allowing you to choose which rules should be applied to the control during report generation, and define the precedence of the applied rules. To learn more on this, refer to <u>Conditionally Change a Control's Appearance</u>.

• Padding

Specifies indent values which are used to render the contents of controls contained in a Panel.

• Style Priority

Allows you to define the priority of various style elements (such as background color, border color, etc.). For more information on style inheritance, refer to <u>Understand Styles Concepts</u>.

Styles

This property allows you to define <u>odd and even styles</u> for the control, as well as to assign an existing style to the control (or a newly created one). For more information on style inheritance, refer to <u>Understand Styles Concepts</u>.

#### Behavior

## • Anchor Vertically

Specifies the vertical anchoring style of the control, so that after page rendering it stays attached to the top control, bottom control, or both.

Note that if the Anchor Vertically property is set to Bottom or Both, the Can Grow property (see below) values are ignored, and don't participate in calculating a final height value of this control.

#### Can Grow

When this property is set to Yes, the control's height can be automatically increased, if required, to display the text. If there are other controls below the current control, they will be pushed down to

## • Keep Together

Specifies whether the contents of the control can be horizontally split across pages. In other words, if the control occupies more space than remains on the page, this property specifies whether this control should be split between the current page and the next, or whether it will be printed entirely on the next page. This property is in effect only when the control's content does not fit on the current page. If it does not fit on the next page either, then the control will be split despite this property's value.

#### • Scripts

This property contains events, which you can handle with the required scripts. For more information on scripting, refer to <u>Handle Events via Scripts</u>.

#### Visible

Specifies whether the control should be visible in print preview.

#### Data

## • (Data Bindings)

If the current report is <u>bound to data</u>, this property allows you to bind some of the control's properties (Bookmark, Navigation URL and Tag) to a data field obtained from the report's data source, and to apply a <u>format string</u> to it. For more information on this, refer to <u>Display Values from a Database (Bind Report</u> <u>Elements to Data)</u>.

#### • Tag

This property allows you to add some additional information to the control; for example its id, by which it can then be accessible via <u>scripts</u>.

If the current <u>report has a data source</u>, the Tag property can be bound to a data field obtained from the data source. To do this, expand the (Data Bindings) property and in the Tag.Binding drop-down selector, select the required data field.

#### Design

## • (Name)

Determines a control's name, by which it can be accessed in the <u>Report Explorer</u>, <u>Property Grid</u> or via <u>scripts</u>.

## Layout

Location

Specifies the control's location, in <u>report measurement units</u>.

Size

Specifies the control's size, in <u>report measurement units</u>.

## • Snap Line Margin

Specifies the margin (in <u>report measurement units</u>), which is to be preserved around the control when it is <u>aligned using Snap Lines</u>, or when other controls are aligned next to it.

#### • Snap Line Padding

Specifies the padding (in <u>report measurement units</u>), which is to be preserved within the control when controls it contains are <u>aligned using Snap Lines</u>.

## Navigation

## • Bookmark and Parent Bookmark

These properties are intended for the creation of a hierarchical structure within a report called a document map. For an explanation and help, refer to <u>Add Bookmarks</u>.

If the current <u>report has a data source</u>, the Bookmark property can be bound to a data field obtained from the data source. To do this, expand the (Data Bindings) property and in the Bookmark.Binding drop-down selector, select the required data field.

## • Navigation URL and Navigation Target

Use the Navigation URL property to specify a URL for web browser navigation when a user clicks the control. The web browser displays a page in a window or a frame as specified by the Navigation Target

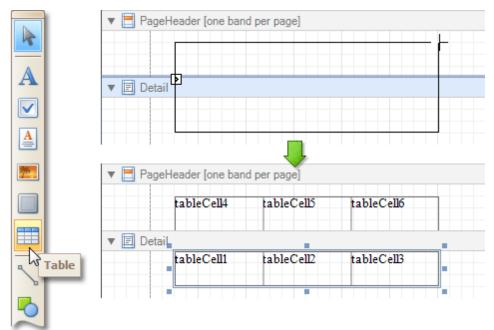
property. Note that a URL should have an appropriate prefix (e.g. "http://"). You can create crossreferences within the report by assigning the name of the target control to the Navigation URL property, and setting the Navigation Target property to "\_self". For more information, refer to <u>Create Hyperlinks</u>. If the current <u>report has a data source</u>, the Navigation URL property can be bound to a data field obtained from the data source. To do this, expand the (Data Bindings) property and in the Navigation URL.Binding drop-down selector, select the required data field.

## Table

The **Table** control is designed to arrange information in a <u>tabular layout</u>. It may contain any number of <u>Rows</u> comprised of individual <u>Cells</u>. Both Rows and Cells can be selected and customized individually. In most aspects, a Cell is similar to a <u>Label</u>, but can also contain other controls (e.g. <u>Picture Box</u> or <u>Rich Text</u>).

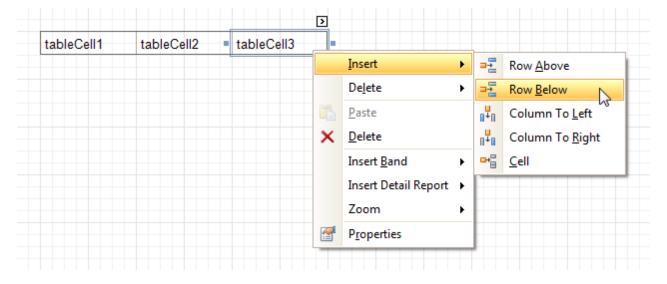
tableCell1	tableCell2	tableCell3
tableCell4	tableCell5	tableCell6

When a Table is dropped onto a <u>band</u> from the <u>Toolbox</u>, it has one row and three columns. If you click and drag over several bands, the resulting table will be split by the bands into several tables. This creates a table header and the detail table with one mouse move.



When you drag and drop an entire data table from the <u>Field List</u>, a Table with cells bound to the corresponding data fields is created automatically.

A table's elements are managed by using its Context Menu.



The whole Table, or its individual Row or Cell can be selected either in the <u>Report Designer</u>, the <u>Report Explorer</u> or the drop-down selector of the <u>Property Grid</u>.

In the Property Grid, the Table's properties are divided into the following groups.

#### Appearance

#### Background Color

Specifies the background color for the control. This option is also available in the Formatting Toolbar (<sup>1)</sup>.

• Borders, Border Color and Border Width

Specify border settings for the control.

• Font

Specifies the font settings for the control. Some of these settings are available in the Formatting Toolbar.

#### • Foreground Color

Specifies the text color for the control. This option is also available in the Formatting Toolbar ( $\Delta$ ).

#### • Formatting Rules

Invokes the Formatting Rules Editor, allowing you to choose which rules should be applied to the control during report generation, and define the precedence of the applied rules. To learn more on this, refer to <u>Conditionally Change a Control's Appearance</u>.

#### • Padding

Specifies indent values which are used to render the contents of a Table's cells.

#### • Style Priority

Allows you to define the priority of various style elements (such as background color, border color, etc.). For more information on style inheritance, refer to <u>Understand Styles Concepts</u>.

#### Styles

This property allows you to define <u>odd and even styles</u> for the control, as well as to assign an existing style to the control (or a newly created one). For more information on style inheritance, refer to <u>Understand Styles Concepts</u>.

## • Text Alignment

Allows you to change the alignment of a Table's text. This option is also available in the <u>Formatting</u> <u>Toolbar</u>.

## Behavior

## • Anchor Vertically

Specifies the vertical anchoring style of a Table, so that after page rendering it stays attached to the top control, bottom control, or both.

#### • Keep Together

Specifies whether the contents of a Table can be horizontally split across pages. In other words, if a Table occupies more space than remains on the page, this property specifies whether the Table should be split between the current page and the next, or whether it will be printed entirely on the next page. This property is in effect only when a Table's content does not fit on the current page. If it does not fit on the next page either, then the Table will be split despite this property's value.

## Scripts

This property contains events, which you can handle with the required scripts. For more information on scripting, refer to <u>Handle Events via Scripts</u>.

#### Visible

Specifies whether the control should be visible in print preview.

#### Data

## • Tag

This property allows you to add some additional information to the control; for example its id, by which it can then be accessible via <u>scripts</u>.

## Design

• (Name)

Determines a control's name, by which it can be accessed in the <u>Report Explorer</u>, <u>Property Grid</u> or via <u>scripts</u>.

#### Layout

## • Location

Specifies the control's location, in <u>report measurement units</u>.

Size

Specifies the control's size, in report measurement units.

• Snap Line Margin

Specifies the margin (in <u>report measurement units</u>), which is to be preserved around the control when it is <u>aligned using Snap Lines</u>, or when other controls are aligned next to it.

## Navigation

## • Bookmark and Parent Bookmark

These properties are intended for the creation of a hierarchical structure within a report called a document map. For an explanation and help, refer to <u>Add Bookmarks</u>.

If the current <u>report has a data source</u>, the Bookmark property can be bound to a data field obtained from the data source. To do this, expand the (Data Bindings) property and in the Bookmark.Binding drop-down selector, select the required data field.

The Table Row Control represents a single row within a Table.

tableCell1	tableCell2	tableCell3
tableCell4	tableCell5	tableCell6
tableCell7	tableCell8	tableCell9

This control is useful for changing the layout of the entire row. Although in this document, a Row is described as a separate control, in fact most of its properties are actually applied to the <u>Cells</u> contained within the selected row.

In the <u>Property Grid</u>, the Table Row's properties are divided into the following groups.

#### Appearance

## Background Color

Specifies the background color for the control. This option is also available in the Formatting Toolbar (".).

• Borders, Border Color and Border Width

Specify border settings for the control.

• Font

Specifies the font settings for the control. Some of these settings are available in the Formatting Toolbar.

• Foreground Color

Specifies the text color for the control. This option is also available in the Formatting Toolbar ( $\Delta$ ).

• Formatting Rules

Invokes the Formatting Rules Editor, allowing you to choose which rules should be applied to the control during report generation, and define the precedence of the applied rules. To learn more on this, refer to <u>Conditionally Change a Control's Appearance</u>.

#### Padding

Specifies indent values which are used to render the contents of a Row.

• Style Priority

Allows you to define the priority of various style elements (such as background color, border color, etc.). For more information on style inheritance, refer to <u>Understand Styles Concepts</u>.

Styles

This property allows you to define <u>odd and even styles</u> for the control, as well as to assign an existing style to the control (or a newly created one). For more information on style inheritance, refer to <u>Understand Styles Concepts</u>.

## • Text Alignment

Allows you to change the alignment of the control's text. This option is also available in the <u>Formatting</u> <u>Toolbar</u>.

#### Behavior

#### • Keep Together

Specifies whether the contents of a Row can be horizontally split across pages. In other words, if a Row occupies more space than remains on the page, this property specifies whether this Row should be split between the current page and the next, or whether it will be printed entirely on the next page. This property is in effect only when a Row's content does not fit on the current page. If it does not fit on the next page either, then the Row will be split despite this property's value.

#### Scripts

This property contains events, which you can handle with the required scripts. For more information on scripting, refer to <u>Handle Events via Scripts</u>.

#### Visible

Specifies whether the control should be visible in print preview.

## Data

## • Tag

This property allows you to add some additional information to the control; for example its id, by which it can then be accessible via <u>scripts</u>.

#### Design

## • (Name)

Determines a control's name, by which it can be accessed in the <u>Report Explorer</u>, <u>Property Grid</u> or via <u>scripts</u>.

## Layout

## • Height

Specifies the Row's height, in <u>report measurement units</u>.

## • Snap Line Margin

Specifies the margin (in <u>report measurement units</u>), which is to be preserved around the control when it is <u>aligned using Snap Lines</u>, or when other controls are aligned next to it.

## Table Cell

The Table Cell control represents an individual cell within a Table.

<u> </u>
tableCell3

In general, the Table Cell control's properties are similar to the properties of the Label control.

In the Property Grid, the Table Cell's properties are divided into the following groups.

## Appearance

## • Background Color

Specifies the background color for the control. This option is also available in the Formatting Toolbar ( $\stackrel{\text{lb}}{=}$ ).

- Borders, Border Color and Border Width Specify border settings for the control.
- Font

Specifies the font settings for the control. Some of these settings are available in the Formatting Toolbar.

• Foreground Color

Specifies the text color for the control. This option is also available in the Formatting Toolbar ( $\Delta$ ).

• Formatting Rules

Invokes the Formatting Rules Editor, allowing you to choose which rules should be applied to the control during report generation, and define the precedence of the applied rules. To learn more on this, refer to <u>Conditionally Change a Control's Appearance</u>.

## • Padding

Specifies indent values which are used to render the contents of a Label.

• Style Priority

Allows you to define the priority of various style elements (such as background color, border color, etc.). For more information on style inheritance, refer to <u>Understand Styles Concepts</u>.

Styles

This property allows you to define <u>odd and even styles</u> for the control, as well as to assign an existing style to the control (or a newly created one). For more information on style inheritance, refer to <u>Understand Styles Concepts</u>.

Text Alignment

Allows you to change the alignment of the control's text. This option is also available in the <u>Formatting</u> <u>Toolbar</u>.

## Behavior

• Angle

Specifies the rotation angle of a Cell's text. The measurement unit is a degree, and the orientation is counter-clockwise. Since standard HTML does not support text orientation, this parameter is ignored when a report is displayed within a web page.

## Can Grow

When this property is set to Yes, a Cell's height can be automatically increased, if required, to display the text. If there are other controls below the current Cell, they will be pushed down to prevent them from overlapping. Note that if a control overlaps the growing Cell by even one pixel, it will not be pushed down by the growing Cell.

## • Can Shrink

When this property is set to Yes, and the text does not completely fill a Cell, then the Cell's height will be decreased to the height of its text. If there are other controls below the current Cell, they will be moved up to fill the gap. Note that if a control overlaps the shrinking Cell by even one pixel, it will not be pushed up by the shrinking Cell.

## Keep Together

Specifies whether the contents of a Cell can be horizontally split across pages. In other words, if a Cell occupies more space than remains on the page, this property specifies whether this Cell should be split between the current page and the next, or whether it will be printed entirely on the next page. This property is in effect only when a Cell's content does not fit on the current page. If it does not fit on the next page either, then the Cell will be split despite this property's value.

## • Multiline

When this property is set to Yes, a Cell processes newline characters found in the text to start a new line. For example, when editing a Cell's text, you can insert a new line by pressing ENTER, and in this case the Multiline property will be automatically set to Yes.

# • Process Duplicates

Determines the control's behavior when its data source contains consecutive repeating records. They can be processed as is (when the property is set to Leave), suppressed except for the first entry(Suppress) and suppressed with the blank space printed instead of the repeated records (Suppress and Shrink).

## • Process Null Values

Determines whether to process Null (blank) values if they appear in the control's data source. They can be processed as is (when the property is set to Leave), suppressed (Suppress) and suppressed with the blank space printed instead of the blank records (Suppress and Shrink).

# Scripts

This property contains events, which you can handle with the required scripts. For more information on scripting, refer to <u>Handle Events via Scripts</u>.

# • Visible

Specifies whether the control should be visible in print preview.

## • Word Wrap

When this property is set to Yes, text entered into the multiline Cell is wrapped to the next line if it doesn't fit the line or comes across a newline character. If the this property is set to No, text entered into the multiline Cell will be displayed on the same line until a newline character is entered.

## Data

## • (Data Bindings)

If the current report is <u>bound to data</u>, this property allows you to bind some of a Cell's properties (Bookmark, Navigation URL, Tag and Text) to a data field obtained from the report's data source, and to apply a <u>format string</u> to it. For more information on this, refer to <u>Display Values from a Database (Bind</u> <u>Report Elements to Data</u>).

## Lines

Provides access to the Text property of a Cell in the Multiline mode.

## • Summary

Allows you to perform calculations (summary, max, min, average, etc.) over a data field. For more information on calculating summaries, refer to <u>Add Totals to a Report</u>.

## ☑Note

Summarization is possible for a single data column only. To perform calculations with several data fields, use <u>calculated fields</u>.

## • Tag

This property allows you to add some additional information to the control; for example its id, by which it can then be accessible via <u>scripts</u>.

If the current <u>report has a data source</u>, the Tag property can be bound to a data field obtained from the data source. To do this, expand the (Data Bindings) property and in the Tag.Binding drop-down selector, select the required data field.

## • Text

Allows you to define a line of static text to be displayed. When a Cell is selected in the designer, you may simply start typing the text, and it will be automatically entered into the in-place editor.

	อ	
type in right in- place	ableCell2	tableCell3

To type several lines of text, use the Lines property.

If the current <u>report has a data source</u>, the Text property can be bound to a data field obtained from the data source. To do this, expand the (Data Bindings) property, and in the Text.Binding drop-down selector, select the required data field. For more information on this, refer to <u>Display Values from a Database (Bind</u> <u>Report Elements to Data</u>).

## • Xlsx Format String

Specifies the native XLSX format string for the control's content, which is to be preserved when the report is being <u>exported</u> to XLSX. This format string is independent from the general <u>value formatting</u>.

## Design

# • (Name)

Determines a control's name, by which it can be accessed in the <u>Report Explorer</u>, <u>Property Grid</u> or via <u>scripts</u>.

## Layout

## • Snap Line Margin

Specifies the margin (in <u>report measurement units</u>), which is to be preserved around the control when it is <u>aligned using Snap Lines</u>, or when other controls are aligned next to it.

## • Width

Specifies the Cell's width, in <u>report measurement units</u>.

## Navigation

## • Bookmark and Parent Bookmark

These properties are intended for the creation of a hierarchical structure within a report called a document map. For an explanation and help, refer to <u>Add Bookmarks</u>.

If the current <u>report has a data source</u>, the Bookmark property can be bound to a data field obtained from the data source. To do this, expand the (Data Bindings) property and in the Bookmark.Binding drop-down selector, select the required data field.

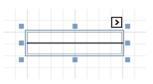
## Navigation URL and Navigation Target

Use the Navigation URL property to specify a URL for web browser navigation when a user clicks a Cell. The web browser displays a page in a window or a frame as specified by the Navigation Target property. Note that a URL should have an appropriate prefix (e.g. "http://"). You can create cross-references within the report by assigning the name of the target control to the Navigation URL property, and setting the Navigation Target property to "\_self". For more information, refer to Create Hyperlinks.

If the current <u>report has a data source</u>, the Navigation URL property can be bound to a data field obtained from the data source. To do this, expand the (Data Bindings) property and in the Navigation URL.Binding drop-down selector, select the required data field.

# Line

The **Line** control draws a line of a specified direction, style, width and color. It can be used for both decoration and visual separation of a report's sections. The Line cannot cross <u>bands</u>, as opposed to the <u>Cross-band Line</u> control.



In the Property Grid, the Line's properties are divided into the following groups.

## Appearance

## Background Color

Specifies the background color for the control.

- Borders, Border Color and Border Width Specify border settings for the control.
- Foreground Color

Specifies the Line's color.

• Formatting Rules

Invokes the Formatting Rules Editor allowing you to choose which rules should be applied to the control during report generation, and define the precedence of the applied rules. To learn more on this, refer to <u>Conditionally Change a Control's Appearance</u>.

## • Line Direction

The line can be drawn vertically, horizontally and from one corner of the rectangle, representing the Line control, to another, across the rectangle. That is, Vertical, Horizontal, Slant and Back Slant types.

## • Line Style

You can select the solid (by default), dashed, dotted or mixed style for the line.

## • Line Width

Specifies the Line's width, in report measurement units.

## • Padding

Specifies indent values which are used to render the contents of the control.

## • Style Priority

Allows you to define the priority of various style elements (such as background color, border color, etc.). For more information on style inheritance, refer to <u>Understand Styles Concepts</u>.

Styles

This property allows you to define <u>odd and even styles</u> for the control, as well as to assign an existing style to the control (or a newly created one). For more information on style inheritance, refer to <u>Understand Styles Concepts</u>.

## Behavior

## • Anchor Vertically

Specifies the vertical anchoring style of the control, so that after page rendering it stays attached to the top control, bottom control, or both.

## • Keep Together

Specifies whether the contents of the control can be horizontally split across pages. In other words, if the control occupies more space than remains on the page, this property specifies whether this control should be split between the current page and the next, or whether it will be printed entirely on the next page. This property is in effect only when the control's content does not fit on the current page. If it does not fit on the next page either, then the control will be split despite this property's value.

## Scripts

This property contains events, which you can handle with the required scripts. For more information on

scripting, refer to Handle Events via Scripts.

## • Visible

Specifies whether the control should be visible in print preview.

## Data

# • (Data Bindings)

If the current report is <u>bound to data</u>, this property allows you to bind the control's Tag property.

## • Tag

This property allows you to add some additional information to the control; for example its id, by which it can then be accessible via <u>scripts</u>.

# Design

# • (Name)

Determines a control's name, by which it can be accessed in the <u>Report Explorer</u>, <u>Property Grid</u> or via <u>scripts</u>.

# Layout

# • Location

Specifies the control's location, in <u>report measurement units</u>.

• Size

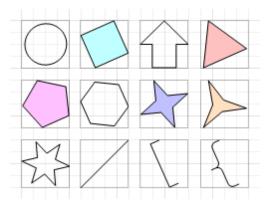
Specifies the control's size, in <u>report measurement units</u>.

• Snap Line Margin

Specifies the margin (in <u>report measurement units</u>), which is to be preserved around the control when it is <u>aligned using Snap Lines</u>, or when other controls are aligned next to it.

# Shape

The **Shape** control allows you to embed simple graphic objects into your report. You can choose one of multiple predefined shapes (e.g. rectangles, ellipses, arrows, polygons, crosses and brackets of various kinds).



In the Property Grid, the Shape's properties are divided into the following groups.

# Appearance

Background Color

Specifies the background color for the control. This option is also available in the Formatting Toolbar ( $\stackrel{\text{\tiny ID}}{=}$ ).

- Borders, Border Color and Border Width Specify border settings for the control.
- Fill Color

Specifies the color to fill the contour of a Shape, if applicable. It is transparent by default.

• Foreground Color

Determines the color of a Shape's contour. This option is also available in the Formatting Toolbar ( $\Delta$ ).

• Formatting Rules

Invokes the Formatting Rules Editor allowing you to choose which rules should be applied to the control during report generation, and define the precedence of the applied rules. To learn more on this, refer to <u>Conditionally Change a Control's Appearance</u>.

• Line Width

Here you can set the width of a line used to draw the Shape, expressed in the measure units defined by the <u>report</u>'s Measure Units property. To learn more about this, refer to <u>Change Measurement Units for a</u> <u>Report</u>.

• Padding

Specifies indent values which are used to render the contents of the control.

• Style Priority

Allows you to define the priority of various style elements (such as background color, border color, etc.). For more information on style inheritance, refer to <u>Understand Styles Concepts</u>.

Styles

This property allows you to define <u>odd and even styles</u> for the control, as well as to assign an existing style to the control (or a newly created one). For more information on style inheritance, refer to <u>Understand Styles Concepts</u>.

## Behavior

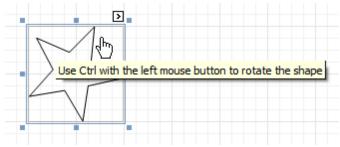
## • Anchor Vertically

Specifies the vertical anchoring style of the control, so that after page rendering it stays attached to the top control, bottom control, or both.

## • Angle

The value in degrees specifies the rotation angle of a Shape. It indicates counterclockwise rotation.

You can hold CTRL while pressing the left mouse button to rotate a Shape within the control's borders.



#### Scripts

This property contains events, which you can handle with the required scripts. For more information on scripting, refer to <u>Handle Events via Scripts</u>.

#### • Shape

Determines which of the various built-in shapes to use within the control.

A certain shape has its own unique set of properties. The following list is intended to give a brief overview of these special properties specific to a certain shape.

Property	Description	Supported by Shapes
Fillet	This property specifies how much a Shape's corners are rounded. It enables display of rounded boxes and triangles.	Arrows, Polygons, Stars and Cross
Number of Sides	This property allows you to set the number of sides.	Polygons
Count of Star Points	This property allows you to set the number of star points.	Stars
Concavity	Defines the level of inward-curve for the lines connecting the vertices of a Star. It may be an integer in the range of <b>0 - 100</b> .	Stars
Tip's Length	This property specifies the length of the Bracket's ends.	Bracket and Brace
Tail's Length	This property specifies the tail length of a Brace.	Brace

#### Stretch

If the Shape is rotated to some degree (that is, its Angle property is not zero), you may turn on the Stretch property. The Shape image will be stretched to cover maximum space within the control's borders.

#### • Visible

Specifies a value indicating whether the current control should be printed (when set to Yes) or hidden (No) on report generation.

#### Data

## • (Data Bindings)

If the current report is <u>bound to data</u>, this property allows you to bind some of the control's properties (Bookmark, Navigation URL and Tag) to a data field obtained from the report's data source, and to apply a <u>format string</u> to it. For more information on this, refer to <u>Display Values from a Database (Bind Report</u> <u>Elements to Data)</u>.

#### • Tag

This property allows you to add some additional information to the control; for example its id, by which it can then be accessible via <u>scripts</u>.

If the current <u>report has a data source</u>, the Tag property can be bound to a data field obtained from the data source. To do this, expand the (Data Bindings) property and in the Tag.Binding drop-down selector, select the required data field.

#### Design

#### • (Name)

Determines a control's name, by which it can be accessed in the <u>Report Explorer</u>, <u>Property Grid</u> or via <u>scripts</u>.

#### Layout

# Location

Specifies the control's location, in <u>report measurement units</u>.

• Size

Specifies the control's size, in report measurement units.

#### • Snap Line Margin

Specifies the margin (in <u>report measurement units</u>), which is to be preserved around the control when it is <u>aligned using Snap Lines</u>, or when other controls are aligned next to it.

#### Navigation

#### Bookmark and Parent Bookmark

These properties are intended for the creation of a hierarchical structure within a report called a document map. For an explanation and help, refer to <u>Add Bookmarks</u>.

If the current <u>report has a data source</u>, the Bookmark property can be bound to a data field obtained from the data source. To do this, expand the (Data Bindings) property and in the Bookmark.Binding drop-down selector, select the required data field.

#### Navigation URL and Navigation Target

Use the Navigation URL property to specify a URL for web browser navigation when a user clicks the control. The web browser displays a page in a window or a frame as specified by the Navigation Target property. Note that a URL should have an appropriate prefix (e.g. "http://"). You can create cross-references within the report by assigning the name of the target control to the Navigation URL property, and setting the Navigation Target property to "\_self". For more information, refer to <u>Create Hyperlinks</u>.

If the current <u>report has a data source</u>, the Navigation URL property can be bound to a data field obtained from the data source. To do this, expand the (Data Bindings) property and in the Navigation URL.Binding drop-down selector, select the required data field.

# Bar Code

The **Bar Code** control transforms its content into a bar code of the specified type. Multiple standard bar code symbologies are supported.



#### Note

The barcode quality can degrade when the report is exported to formats other than PDF. To ensure reliable barcode recognition, print the report directly from an application using the native printing methods. The **Module** and **Auto-Module** properties of a control should be used with care.

In the Property Grid, the Bar Code's properties are divided into the following groups.

## Appearance

• Alignment

Determines the alignment of the barcode image within the control. To define the text alignment, use the Text Alignment property.

Background Color

Specifies the background color for the control. This option is also available in the Formatting Toolbar ( $\stackrel{\text{lb}}{=}$ ).

- Borders, Border Color and Border Width Specify border settings for the control.
- Font

Specifies the font settings for the control. Some of these settings are available in the Formatting Toolbar.

• Foreground Color

Specifies the text and image color for the bar code. This option is also available in the Formatting Toolbar (  $\Delta$ ).

• Formatting Rules

Invokes the Formatting Rules Editor, allowing you to choose which rules should be applied to the control during report generation, and define the precedence of the applied rules. To learn more on this, refer to <u>Conditionally Change a Control's Appearance</u>.

• Padding

Specifies indent values which are used to render the contents of a Bar Code.

• Style Priority

Allows you to define the priority of various style elements (such as background color, border color, etc.). For more information on style inheritance, refer to <u>Understand Styles Concepts</u>.

Styles

This property allows you to define <u>odd and even styles</u> for the control, as well as to assign an existing style to the control (or a newly created one). For more information on style inheritance, refer to <u>Understand Styles Concepts</u>.

## Text Alignment

Allows you to change the alignment of the control's text. This option is also available in the Formatting Toolbar. To define the alignment of the barcode image, use the Alignment property.

## Behavior

# • Anchor Vertically

Specifies the vertical anchoring style of the control, so that, after page rendering, it stays attached to the top control, bottom control, or both.

# • Auto-Module

When this property is set to Yes, the barcode image is stretched to fit the entire control's width. When

this option is turned off, this behavior is determined by the Module property.

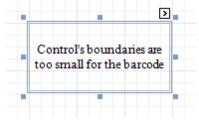
# Keep Together

Specifies whether the contents of the control can be horizontally split across pages. In other words, if the control occupies more space than remains on the page, this property specifies whether this Bar Code should be split between the current page and the next, or whether it will be printed entirely on the next page. This property is in effect only when a Bar Code's content does not fit on the current page. If it does not fit on the next page either, then the Bar Code will be split, despite this property's value.

## • Module

Specifies the width of the narrowest bar or space in the barcode, in <u>report measurement units</u>. You may set this property to Yes for automatic adjustment of its value, when the control is resized. Note that if the Module value is too low, the barcode output may become unreadable by a barcode scanner.

When the Auto-Module property is set to No, there could be a situation when the barcode image generated with the current setting of Module property is larger than the control itself. In this case, the control displays a warning, as illustrated below.



So, increase the dimensions of the control, to avoid this.

## • Orientation

The barcode image within the control can be rotated. If you need this feature, use the Orientation property to specify one of four possible orientations (Normal, Upside Down, Rotate to the Left and Rotate to the Right) for an image within the control.

#### • Scripts

This property contains events, which you can handle with the required scripts. For more information on scripting, refer to <u>Handle Events via Scripts</u>.

#### Show Text

Determines whether to display the numerical value, or only the barcode within the control.

## Symbology

The Symbology defines the mapping between barcode text and an image. Currently, the Bar Code control supports only linear 1D symbologies. They are listed in the following table:

Symbology	Description
Codabar	The Codabar is an old format that uses discrete, self- checking symbology, capable of encoding 16 different characters, plus an additional 4 start/stop characters. You should also specify the <b>Start and Stop Symbols</b> and <b>Wide Narrow Ratio</b> properties.
Code11	Code 11, also known as USD-8, was developed as a high-density numerical-only symbology. The symbology is discrete, and is able to encode the numbers 0 through to 9, the dash symbol (-), and start/stop characters.
Code128	Code 128 has been widely implemented. It is a high- density symbology which permits encoding messages of arbitrary lengths of any character of the ASCII character set. The symbology includes a checksum digit for verification. You should also specify the <b>Character Set</b> . The recommended setting is <b>Auto</b> <b>Charset</b> .

Code39	Code 39 is also known as "3 of 9 Code" and "USD-3". It can encode uppercase letters (A through Z), digits (0 through 9) and several special characters like the \$ sign. The <b>Calculate a Checksum</b> and <b>Wide Narrow</b> <b>Ratio</b> (which should be in a range of 2.2 -3) properties can also be specified.
Code39Extended	This is an extension of Code 39, also known as "Full ASCII Code 39". It is capable of encoding all 128 ASCII characters. The <b>Calculate a Checksum</b> and <b>Wide Narrow Ratio</b> (which should be in a range of 2.2 -3) properties can be specified.
Code93	Code 93 was designed to supplement and improve Code 39. It is an alphanumeric, variable length symbology, providing higher reliability and density than Code 39. The <b>Calculate a Checksum</b> property can be specified.
Code93Extended	It enables encoding of all 128 ASCII characters using Code 93's "Full ASCII Mode". This is accomplished by using the (\$), (/), (%), and (+) symbols as "shift" characters. The <b>Calculate a Checksum</b> property can be specified.
CodeMSI	MSI symbology, also known as Modified Plessey, is a low-density, numerical only symbology. To specify the checksum, use the <b>MSI Checksum</b> property. It can be set to None, Modulo 10 and Double Modulo 10.
EAN128	UCC/EAN-128 symbology has the newer name GS1- 128. It is based on the Code128 standard, additionally specifying the Application Identifiers for data sections within the code. It includes best before dates, batch numbers, quantities, weights and other attributes. The <b>Character Set</b> property can be specified ( <b>Auto Charset</b> is the recommended value). The <b>FNC1 Functional Character</b> property defines a symbol that is not included in a bar code when met in text, but used to generate the application identifiers. The <b>Human-Readable Text</b> property, when set to Yes, inserts parentheses into the text below the bar code for better readability.
EAN13	The EAN-13 barcode contains 13 digits, no letters or other characters. The first two or three digits represent the country. The leading zero actually signifies the USA, and UPC-A coding. The last digit is the checksum digit. The control calculates it automatically and it should not be present in the control's text string. So, make sure that the text for this symbology contains no more than 12 digits. If fewer digits are supplied, the string is padded with zeroes on the left.
EAN8	EAN-8 is a shortened version of the EAN-13 code. It includes a 2 or 3 digit country code, 4 of 5 data digits (depending on the length of the country code), and a checksum digit. The control calculates the checksum digit automatically and it should not be present in the control's text string. So, make sure that the text for this symbology contains no more than 7 digits. If fewer digits are supplied, the string is padded with zeroes on the left.

Industrial2of5	The Industrial (or non-interleaved) 2 of 5 code is a numerical, low-density symbology, based on two-out- of-five code. The <b>Calculate a Checksum</b> and <b>Wide</b> <b>Narrow Ratio</b> (which should be greater than or equal to 2.5) properties can be specified.
Interleaved2of5	The Interleaved 2 of 5 code is a higher-density numerical symbology, based on two-out-of-five code. The <b>Calculate a Checksum</b> and <b>Wide Narrow Ratio</b> (which should be greater than or equal to 2.5) properties can be specified.
Matrix2of5	A variant of non-interleaved 2 of 5 code. It is a numerical only symbology. The <b>Calculate a Checksum</b> and <b>Wide Narrow Ratio</b> (which should be greater than or equal to 2.5) properties can be specified.
PDF417	This Portable Data File symbology is used in a variety of applications, and can also be used to generate postage accepted by the United States Postal Service. It consists of a variable number of rows, each of which is like a small linear bar code. Among other options, the <b>Error Correction Level</b> specifies the amount of redundancy, to protect a barcode's legibility.
PostNet	This symbology is used by the United States Postal Service to assist in directing mail. The code usually contains the zip-code and delivery point number. Unlike most other barcodes, PostNet actually encodes data in the height of the bars.
UPCA	The UPC-A barcode contains 12 digits, no letters or other characters. The first digit is the prefix signifying the product type. The last digit is the "check digit". The check digit is calculated using the first eleven figures when the barcode is constructed. So, for a correct UPC-A, make sure that the text contains no more than 11 digits. If there are fewer than 11, the string is padded with zeroes on the left.
UPCEO	This symbology is a variation of UPC-A which allows for a more compact barcode by eliminating "extra" zeros. The first digit is always zero; the last digit is a checksum digit of the original UPC-A code. Not every UPC-A code can be transformed into UPC-E0. E.g., the control's text string "4210000526" is displayed by UPC-E0 symbology as "04252614" and represents the "042100005264" UPC-A code (check digit included).
UPCE1	This symbology is a variation of UPC-A, which allows for a more compact barcode by eliminating "extra" zeros. The first digit is always 1, and the last digit is a checksum digit of the original UPC-A code. Not every UPC-A code can be transformed into UPC-E1. E.g., the control's text string "4210000526" is displayed by UPC-E1 symbology as "14252611" and represents the "142100005261" UPC-A code (check digit included).
UPCSupplemental2	This is a supplemental two-digit barcode. Make sure that the control's text string contains two digits.
UPCSupplemental5	This is a supplemental five-digit barcode, usually used to indicate the suggested retail price of a book. Make sure that the control's text string contains five digits.

# • Visible

Specifies whether the control should be visible in print preview.

## Data

## • (Data Bindings)

If the current report is <u>bound to data</u>, this property allows you to bind some of the control's properties (Bookmark, Navigation URL, Tag and Text) to a data field obtained from the report's data source, and to apply a <u>format string</u> to it. For more information on this, refer to <u>Display Values from a Database (Bind</u> <u>Report Elements to Data</u>).

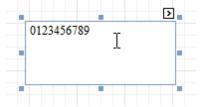
## • Tag

This property allows you to add additional information to the control; for example its id, by which it can then be accessible via <u>scripts</u>.

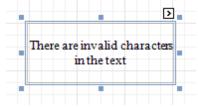
If the current <u>report has a data source</u>, the Tag property can be bound to a data field obtained from the data source. To do this, expand the (Data Bindings) property, and in the Tag.Binding drop-down selector, select the required data field.

## • Text

Allows you to define a string to be encoded as a barcode. You can define whether to display this value within the control using the Show Text property. Note that when the control is selected in the designer, you may simply start typing the text, and it will be automatically entered into the in-place editor.



If the content does not conform to the rules of a certain symbology (determined by the Symbology property), the control may display a warning, as in the picture below, or automatically correct the input string by padding it with zeroes or only allowing an acceptable number of characters to be displayed.



If the current <u>report has a data source</u>, the Text property can be bound to a data field obtained from the data source. To do this, expand the (Data Bindings) property, and in the Text.Binding drop-down selector, select the required data field. For more information on this, refer to <u>Display Values from a Database (Bind</u> <u>Report Elements to Data</u>).

## Design

## • (Name)

Determines a control's name, by which it can be accessed in the <u>Report Explorer</u>, <u>Property Grid</u> or via <u>scripts</u>.

## Layout

# Location

Specifies the control's location, in <u>report measurement units</u>.

Size

Specifies the control's size, in <u>report measurement units</u>.

## • Snap Line Margin

Specifies the margin (in <u>report measurement units</u>), which is to be preserved around the control when it is <u>aligned using Snap Lines</u>, or when other controls are aligned next to it.

## Navigation

## • Bookmark and Parent Bookmark

These properties are intended for the creation of a hierarchical structure within a report, called a document map. For an explanation and help, refer to <u>Add Bookmarks</u>.

If the current <u>report has a data source</u>, the Bookmark property can be bound to a data field obtained from the data source. To do this, expand the (Data Bindings) property, and in the Bookmark.Binding drop-down selector, select the required data field.

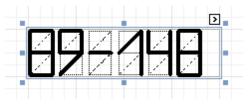
## • Navigation URL and Navigation Target

Use the Navigation URL property to specify a URL for web browser navigation when a user clicks a Bar Code. The web browser displays a page in a window or a frame as specified by the Navigation Target property. Note that a URL should have an appropriate prefix (e.g. "http://"). You can create cross-references within the report by assigning the name of the target control to the Navigation URL property, and setting the Navigation Target property to "\_self". For more information, refer to <u>Create Hyperlinks</u>.

If the current <u>report has a data source</u>, the Navigation URL property can be bound to a data field obtained from the data source. To do this, expand the (Data Bindings) property, and in the Navigation URL.Binding drop-down selector, select the required data field.

# Zip Code

The **Zip Code** control transforms its content into a zip code. The width of a zip code's segment is adjustable.



In the <u>Property Grid</u>, the Zip Code's properties are divided into the following groups.

## Appearance

# • Background Color

Specifies the background color for the control. This option is also available in the Formatting Toolbar ( $\stackrel{\text{lb}}{=}$ ).

- Borders, Border Color and Border Width Specify border settings for the control.
- Foreground Color

Specifies the color for the control. This option is also available in the Formatting Toolbar ( $\Delta$ ).

• Formatting Rules

Invokes the Formatting Rules Editor allowing you to choose which rules should be applied to the control during report generation, and define the precedence of the applied rules. To learn more on this, refer to <u>Conditionally Change a Control's Appearance</u>.

## • Padding

Specifies indent values which are used to render the contents of the control.

• Style Priority

Allows you to define the priority of various style elements (such as background color, border color, etc.). For more information on style inheritance, refer to <u>Understand Styles Concepts</u>.

Styles

This property allows you to define <u>odd and even styles</u> for the control, as well as to assign an existing style to the control (or a newly created one). For more information on style inheritance, refer to <u>Understand Styles Concepts</u>.

## Behavior

## • Anchor Vertically

Specifies the vertical anchoring style of the control, so that after page rendering it stays attached to the top control, bottom control, or both.

## Keep Together

Specifies whether the contents of the control can be horizontally split across pages. In other words, if the control occupies more space than remains on the page, this property specifies whether this Zip Code should be split between the current page and the next, or whether it will be printed entirely on the next page. This property is in effect only when a Zip Code's content does not fit on the current page. If it does not fit on the next page either, then the Zip Code will be split despite this property's value.

## Scripts

This property contains events, which you can handle with the required scripts. For more information on scripting, refer to <u>Handle Events via Scripts</u>.

## • Segment Width

This property setting specifies the width of the lines (in pixels) used to draw the numbers in the zip boxes of the control.

# Visible

Specifies whether the control should be visible in print preview.

## Data

# • (Data Bindings)

If the current report is <u>bound to data</u>, this property allows you to bind some of the control's properties (Bookmark, Navigation URL, Tag and Text) to a data field obtained from the report's data source, and to apply a <u>format string</u> to it. For more information on this, refer to <u>Display Values from a Database (Bind</u> <u>Report Elements to Data</u>).

# • Tag

This property allows you to add some additional information to the control; for example its id, by which it can be then accessible via <u>scripts</u>.

If the current <u>report has a data source</u>, the Tag property can be bound to a data field obtained from the data source. To do this, expand the (Data Bindings) property, and in the Tag.Binding drop-down selector, select the required data field.

## • Text

The Text box should contain digits or dashes. Other characters are displayed as empty zip boxes.

If the current <u>report has a data source</u>, the Text property can be bound to a data field obtained from the data source. To do this, expand the (Data Bindings) property, and in the Text.Binding drop-down selector, select the required data field. For more information on this, refer to <u>Display Values from a Database (Bind</u> <u>Report Elements to Data</u>).

## Design

## • (Name)

Determines a control's name, by which it can be accessed in the <u>Report Explorer</u>, <u>Property Grid</u> or via <u>scripts</u>.

## Layout

## Location

Specifies the control's location, in <u>report measurement units</u>.

• Size

Specifies the control's size, in <u>report measurement units</u>.

• Snap Line Margin

Specifies the margin (in <u>report measurement units</u>), which is to be preserved around the control when it is <u>aligned using Snap Lines</u>, or when other controls are aligned next to it.

## Navigation

## • Bookmark and Parent Bookmark

These properties are intended for the creation of a hierarchical structure within a report called a document map. For an explanation and help, refer to <u>Add Bookmarks</u>.

If the current <u>report has a data source</u>, the Bookmark property can be bound to a data field obtained from the data source. To do this, expand the (Data Bindings) property, and in the Bookmark.Binding drop-down selector, select the required data field.

## • Navigation URL and Navigation Target

Use the Navigation URL property to specify a URL for web browser navigation when a user clicks the control. The web browser displays a page in a window or a frame as specified by the Navigation Target property. Note that a URL should have an appropriate prefix (e.g. "http://"). You can create cross-references within the report by assigning the name of the target control to the Navigation URL property, and setting the Navigation Target property to "\_self". For more information, refer to <u>Create Hyperlinks</u>.

If the current <u>report has a data source</u>, the Navigation URL property can be bound to a data field obtained from the data source. To do this, expand the (Data Bindings) property, and in the Navigation URL.Binding drop-down selector, select the required data field.

# Chart

The **Chart** is a sophisticated control used to embed graphs into your report. It graphically represents a *series* of *points* using numerous 2D or 3D chart types. A Chart can be populated with points both *manually* (by specifying *arguments* and *values* for each point) and *dynamically* (by connecting it to the report's data source, or binding it to a separate one).

For more information about this control, refer to Charting.



There are many available Chart types you can choose from. To name a few, these are Bar, Point, Line, Pie and Doughnut, Area, Radar and Polar, Range Bar, Gantt, Candle Stick and Stock charts.

A Chart control contains multiple elements (diagram, series, series points, axes, legend, titles, labels, strips, constant lines, etc.). When any of these elements is selected, the <u>Property Grid</u> shows only the properties which correspond to the selected item. Visual Chart elements which can be highlighted or selected, are described in <u>Select Chart Elements</u>.

The Chart control is data-aware in a different manner than the other report controls. Consider three common report scenarios:

- 1. Static data for a Chart's series is provided *manually*. It can be done using the Series Collection Editor invoked by the Chart's Series property. It allows you to manually define values and arguments for each series point.
- 2.Chart's series are created *automatically*, getting their data from the Chart's Data Source and dependent on the rules defined by the Series Template property. This approach is described in <u>Chart with Dynamic</u> <u>Series</u>.
- 3.Each series is created and customized manually and has a separate Data Source. This approach is described in <u>Chart with Static Series</u>.

You can customize a created chart using both the Property Grid and the <u>Chart Wizard</u>. To invoke the Chart Wizard, click a Chart's <u>Smart Tag</u>, and in the invoked actions list, click the **Run Wizard...** link.

	Chart Tasks		
	Data Source	GrossStateProduct	~
-	Data Member	GSP	$\checkmark$
There are no visible series to represent in a chart. Try to add new series, or make sure that	Data Adapter	GSPTableAdapter	~
at least one of them is visible.	Formatting Rules	(Collection)	)
	Run Wizard Series (b) Annotations Palettes		
	Save Load		

Then, the Chart Wizard will guide you through the whole process of customizing the Chart, from defining its view type to providing its data and customizing its appearance.

In the Property Grid, the Chart's properties are divided into the following groups.

#### Appearance

#### • Appearance Name

Allows you to choose one of the available appearances, to be used to draw the Chart's elements (Diagram, Axes, Legend, etc.).

Background Color

Specifies the background color for a Chart.

• Background Image

Allows you to load a background image to a Chart (or define its URL), and also define whether it should be stretched to fit the entire Chart's area, or not.

- Borders, Border Color and Border Width Specify border settings for the control.
- Fill Style

Determines the fill style of a Chart's background (Empty, Solid, Gradient or Hatch) and define other fill options if required.

• Formatting Rules

Invokes the Formatting Rules Editor allowing you to choose which rules should be applied to the control during report generation, and define the precedence of the applied rules. To learn more on this, refer to <u>Conditionally Change a Control's Appearance</u>.

• Image Type

Determines whether a Chart should be internally rendered as a metafile in a report (in this case the quality of the rendered image is always good, but in particular cases some details of the control may be lost), or as a bitmap (in this case the quality of the rendered image is sometimes poor, but it allows a control to be drawn more precisely).

#### Indicators Palette Name

Specifies the palette that is used to paint all indicators that exist in a Chart.

• Padding

Specifies the internal space between the Chart's content (the diagram and legend) and its edge, in pixels.

#### Palette Name

Allows you to choose one from the built-in palettes to be used to draw a Chart's series.

# Palette's Base Color Number

Allows you to define an integer index determining the base color for the palette defined by the Chart's Palette Name property.

## • Style Priority

Allows you to define the priority of various style elements (such as background color, border color, etc.). For more information on style inheritance, refer to <u>Understand Styles Concepts</u>.

## Behavior

# • Anchor Vertically

Specifies the vertical anchoring style of the control, so that after page rendering it stays attached to the top control, bottom control, or both.

## • Automatic Binding Settings Enabled

Specifies whether or not the Chart's data binding is automatically adjusted when its data source is a Pivot Grid.

## Automatic Layout Settings Enabled

Specifies whether or not the Chart's layout is automatically adjusted when its data source is a Pivot Grid.

## • Empty Chart Text

Specifies the text to be shown in the Chart, when it has no data to display.

## • Scripts

This property contains events, which you can handle by the required scripts. For more information on scripting, refer to <u>Handle Events via Scripts</u>.

# • Small Chart Text

Specifies the text to be shown in the Chart, when it's too small to fit the diagram.

## • Visible

Specifies whether a Chart should be visible in print preview.

## Data

## • (Data Bindings)

If the current report is <u>bound to data</u>, this property allows you to bind some of a Chart's properties (Bookmark, Navigation URL and Tag) to a data field obtained from the report's data source, and to apply a <u>format string</u> to it. For more information on this, refer to <u>Display Values from a Database (Bind Report</u> <u>Elements to Data)</u>.

## • Data Adapter

Determines a data adapter that will populate a Chart's data source which is assigned via the Data Source property. It is automatically set to the appropriate value, when the Data Member property is defined. To learn more on this, refer to <u>Chart with Static Series</u>.

## • Data Member

Determines the data source member which supplies data to a Chart. To learn more on this, refer to <u>Chart</u> with <u>Static Series</u>.

# Note

Usually, it is not necessary to specify the Data Member property when binding a Chart to data. This property should only be set directly if the dataset contains more than one table.

## Data Source

Determines a Chart's data source. To learn more on this, refer to Chart with Static Series.

## • Pivot Grid Data Source Options

Determines a Chart's data source. To learn more on this, refer to Chart with Static Series.

## • Series Data Member

Determines the name of the data field whose values are used to automatically generate and populate a Chart's series. To learn more on this, refer to <u>Chart with Dynamic Series</u>.

When Chart binding is used to automatically generate series within a chart control based upon the data obtained from the associated data source (defined by the Data Source property), a rule needs to be defined that helps the Chart recognize the data records whose values are used to construct individual series objects. To do this, the Series Data Member property, which specifies the data field whose values

are taken into account when series objects are automatically created and populated, can be used.

Each automatically generated series gets its name from the data field specified by the Series Data Member property. For example, this name is used to identify a series within the chart control's legend. The names of all automatically generated series can be supplemented with the same prefix and postfix defined by the settings which are available via the Series Name Template property.

The template settings for the dynamically created series are defined by the specific properties which are available via the SeriesTemplate property of a Chart. In particular, the Argument Data Member and Value Data Members properties specify the data fields from which the arguments and data values of the series data points are obtained.

#### Note

Note that if the Series Data Member property is not set for a Chart, the Chart control can't automatically generate series even if the Argument Data Member and Value Data Members properties are defined.

#### • Series Name Template

Determines the settings used to name data bound series defining the prefix and postfix texts for the names of series which are dynamically created as a result of binding a Chart to data (using the Data Source, Series Data Member, Argument Data Member and Value Data Members properties). The series names, to which these prefixes and postfixes are added, are taken by each series from the data field defined by the Series Data Member property. To learn more on this, refer to Chart with Dynamic Series.

#### Note

Note that the settings available via the Series Name Template property are not applied to the data bound series which are contained within the Series collection of a Chart.

#### • Series Sorting

Allows you to define the sort mode of a Chart's series (None by default, Descending or Ascending).

#### • Series Template

Allows you to customize a template for series which are created dynamically as a result of binding a Chart to data (via the Data Source and Series Data Member properties). The settings which are available via the Series Template property are common to all such data bound series. These settings allow you to provide centralized customization of all dynamically created data bound series. To learn more on using this property, refer to <u>Chart with Dynamic Series</u>.

Note that the settings which are customized via the Series Template property don't apply to the series contained within the Series collection of a Chart.

#### • Tag

This property allows you to add some additional information to the control; for example its id, by which it can then be accessible via <u>scripts</u>.

If the current <u>report has a data source</u>, the Tag property can be bound to a data field obtained from the data source. To do this, expand the (Data Bindings) property and in the Tag.Binding drop-down selector, select the required data field.

#### Design

#### • (Name)

Determines a control's name, by which it can be accessed in the <u>Report Explorer</u>, <u>Property Grid</u> or via <u>scripts</u>.

#### Elements

## • Annotation Repository

Provides centralized access to all annotations that are present in the Chart.

#### • Annotations

Provides access to the annotations collection of the Chart.

#### • Diagram

Allows you to customize a Chart's diagram elements: main and secondary axes and panes.

By default, a Chart is displayed in the Default Pane, but if necessary, you can display each Chart's series in a separate pane. To do this, click the Pane's ellipsis button, to invoke the Pane Collection Editor, allowing you to manage and customize panes. Then, select the required series within the Chart and set its View.Pane property to the required pane.

Note that the diagram is null until no visible series exists in the Chart's collection. So, to access the diagram's options, you should create a series first.

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## Legend

Allows you to customize a Chart's legend, by defining such properties as text alignment and antialiasing, font style, background color or image, border options, markers' size and visibility, shadow options, etc.

#### Series

Invokes the Series Collection Editor, which allows you to manage and customize a Chart's series.

Note that <u>series which are bound to data at the level of a chart control</u> (in particular, using the Data Source, Series Data Member and both the Argument Data Member and Value Data Members properties) are created dynamically, based upon the data obtained from the specified data source, and they are not presented within the Series collection. To perform a centralized customization of such series, use the settings which are available via the Series Template property.

## Titles

Invokes the Chart Title Collection Editor, which allows you to manage and customize a Chart's titles.

## Layout

#### Location

Specifies the control's location, in report measurement units.

• Size

Specifies the control's size, in <u>report measurement units</u>.

• Snap Line Margin

Specifies the margin (in <u>report measurement units</u>), which is to be preserved around the control when it is <u>aligned using Snap Lines</u>, or when other controls are aligned next to it.

#### Navigation

#### • Bookmark and Parent Bookmark

These properties are intended for the creation of a hierarchical structure within a report called a document map. For an explanation and help, refer to <u>Add Bookmarks</u>.

If the current <u>report has a data source</u>, the Bookmark property can be bound to a data field obtained from the data source. To do this, expand the (Data Bindings) property and in the Bookmark.Binding drop-down selector, select the required data field.

## • Navigation URL and Navigation Target

Use the Navigation URL property to specify a URL for web browser navigation when a user clicks the control. The web browser displays a page in a window or a frame as specified by the Navigation Target property. Note that a URL should have an appropriate prefix (e.g. "http://"). You can create cross-references within the report by assigning the name of the target control to the Navigation URL property, and setting the Navigation Target property to "\_self". For more information, refer to <u>Create Hyperlinks</u>.

If the current <u>report has a data source</u>, the Navigation URL property can be bound to a data field obtained from the data source. To do this, expand the (Data Bindings) property, and in the Navigation URL.Binding drop-down selector, select the required data field.

# Pivot Grid

The **Pivot Grid** control represents dynamic data (obtained from an underlying data source) in a cross-tabulated form to create <u>cross-tab reports</u>, similar to Pivot Tables in Microsoft Excel®. Column headers display unique values from one data field, and row headers - from another field. Each cell displays a summary for the corresponding row and column values. By specifying different data fields, you can see different totals. This allows you to get a compact layout for a complex data analysis.

The Pivot Grid has a designer which allows you to easily adjust its layout. It can be invoked using the control's Smart Tag.

•	Grand Total	Pivot Grid Tasks		
Grand Total	Grand Total	Data Source	myDataSet	~
Grand Total		Data Member	Products	¥
		Data Adapter	ProductsTableAdapter	¥
		OLAP Connection String		
		Formatting Rules	(Collection)	
		Field Area for a New Field	Row Area	~
		Add Field to Area		
		Run Designer		

For more information on using this control, refer to Pivot Table.

In the Property Grid, the Pivot Grid's properties are divided into the following groups.

## Appearance

#### • Appearance

Allows you to define the appearance properties (such as Background Color, Foreground Color, Font, etc.) for the Pivot Grid's elements (Cell, Field Value, Filter Separator, Header Group Line, etc.).

• Formatting Rules

Invokes the Formatting Rules Editor allowing you to choose which rules should be applied to the control during report generation, and define the precedence of the applied rules. To learn more on this, refer to <u>Conditionally Change a Control's Appearance</u>.

Styles

Allows you to invoke the Styles Editor, which is intended to manage and customize the control's styles, which then can be assigned to the Pivot Grid's elements.

## Behavior

#### • Anchor Vertically

Specifies the vertical anchoring style of the Pivot Grid, so that after page rendering it stays attached to the top control, bottom control, or both.

#### Keep Together

Specifies whether the contents of the control can be horizontally split across pages. In other words, if the control occupies more space than remains on the page, this property specifies whether this Pivot Grid should be split between the current page and the next, or whether it will be printed entirely on the next page. This property is in effect only when a Pivot Grid's content does not fit on the current page. If it does not fit on the next page either, then the Pivot Grid will be split despite this property's value.

#### Scripts

This property contains events, which you can handle by the required scripts. For more information on scripting, refer to <u>Handle Events via Scripts</u>.

# • Visible

Specifies whether the control should be visible in print preview.

#### Data

#### • Data Adapter

Determines a data adapter that will populate a Pivot Grid's data source which is assigned via the Data Source property. It is automatically set to the appropriate value, when the Data Member property is defined. To learn more on this, refer to <u>Cross-Tab Report</u>.

#### • Data Member

Determines the data source member which supplies data to a Pivot Grid. To learn more on this, refer to <u>Cross-Tab Report</u>.

#### ☑Note

Usually, it is not necessary to specify the Data Member property when binding a Pivot Grid to data. This property should only be set directly if the dataset contains more than one table.

#### Data Source

Determines a Pivot Grid's data source. To learn more on this, refer to Cross-Tab Report.

## • Fields

Invokes the Pivot Grid Field Collection Editor, allowing you to manage and fully customize a Pivot Grid's fields.

#### • OLAP Connection String

Specifies a connection string to a cube in an Microsoft Analysis Services database. A sample connection string is shown below:

OLAPConnectionString="Provider=msolap;Data Source=localhost;Initial Catalog=Adventure Works DW;Cube Name=Adventure Works;Query Timeout=100;"

A connection string can be built via the Connection String Editor. To invoke it, click the ellipsis button for the OLAP Connection String property.

To represent information from the bound cube, create specific Pivot Grid fields, and bind them to the required fields in the data source.

If the OLAP Connection String property is set to a valid string, the value of the Data Source property is cleared. Setting the Data Source property to a valid object clears the OLAP Connection String property.

## • Prefilter

When this property is expanded in the <u>Property Grid</u>, you can set its Enabled property to Yes, and use the Criteria property to invoke the Pivot Grid Prefilter dialog.

This dialog allows you to build complex filter criteria with an unlimited number of filter conditions, combined by logical operators. It provides a set of logical operators that significantly simplify the process of creating filters for text, numeric and date-time fields.

#### Note

The Prefilter is not supported in OLAP mode.

## Design

#### • (Name)

Determines a control's name, by which it can be accessed in the <u>Report Explorer</u>, <u>Property Grid</u> or via <u>scripts</u>.

#### Layout

# Location

Specifies the control's location, in report measurement units.

Size

Specifies the control's size, in <u>report measurement units</u>.

## • Snap Line Margin

Specifies the margin (in <u>report measurement units</u>), which is to be preserved around the control when it is <u>aligned using Snap Lines</u>, or when other controls are aligned next to it.

## Navigation

# Bookmark and Parent Bookmark

These properties are intended for the creation of a hierarchical structure within a report called a document map. For an explanation and help, refer to <u>Add Bookmarks</u>.

# Options

# • Data Field Options

Allows you to customize the options which control the presentation of the data fields.

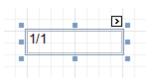
- **Data Options** Allows you to define whether a Pivot Grid's fields must be case sensitive or not.
- Options Chart Data Source Provides access to the options controlling the display of the Pivot Grid's data in a <u>Chart</u>.
- Print Options

Allows you to customize the print options of a Pivot Grid.

• View Options Allows you to customize the Pivot Grid's display options.

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The **Page Info** control is intended to <u>add page numbers and system information</u> (the current date and time or the current user name) into your report. As with many other controls, you can <u>format</u> this control's content.



In the <u>Property Grid</u>, the Page Info control's properties are divided into the following groups.

## Appearance

## • Background Color

Specifies the background color for the control. This option is also available in the Formatting Toolbar (2).

- Borders, Border Color and Border Width Specify border settings for the control.
- Font

Specifies the font settings for the control. Some of these settings are available in the Formatting Toolbar.

• Foreground Color

Specifies the text color for the control. This option is also available in the Formatting Toolbar ( $\Delta$ ).

• Formatting Rules

Invokes the Formatting Rules Editor, allowing you to choose which rules should be applied to the control during report generation, and define the precedence of the applied rules. To learn more on this, refer to <u>Conditionally Change a Control's Appearance</u>.

#### • Padding

Specifies indent values which are used to render the contents of the control.

• Style Priority

Allows you to define the priority of various style elements (such as background color, border color, etc.). For more information on style inheritance, refer to <u>Understand Styles Concepts</u>.

Styles

This property allows you to define <u>odd and even styles</u> for the control, as well as to assign an existing style to the control (or a newly created one). For more information on style inheritance, refer to <u>Understand Styles Concepts</u>.

## • Text Alignment

Allows you to change the alignment of the control's text. This option is also available in the <u>Formatting</u> <u>Toolbar</u>.

## Behavior

#### • Anchor Vertically

Specifies the vertical anchoring style of the control, so that after page rendering it stays attached to the top control, bottom control, or both.

• Format

This property allows you to specify the format string for the text displayed in the control. When you click the ellipsis button, you will see the **Format String Editor** window that will select the predefined format or customize it as needed. For more information about this, refer to <u>Change Value Formatting of Report Elements</u>.

## • Page Information

You can select the type of information displayed in the control.

Туре	Description
------	-------------

None	Displays an empty control
none	Displays an empty control.
Page Number	The string, specified by the <b>Format</b> property, is displayed. The <b>{0}</b> combination in the string is replaced with the current page number.
"Current of Total" Page Numbers	The string, specified by the <b>Format</b> property, is displayed. The <b>{0}</b> combination in the string is replaced with the current page number, the <b>{1}</b> combination - with a total number of pages in the report. To display the typical "Page 1 of 11" text, use the format string "Page {0} of {1}".
Page Number (Roman, Lowercase)	The current page number is displayed using Roman numerals in lowercase.
Page Number (Roman, Uppercase)	The current page number is displayed using Roman numerals in uppercase.
Current Date and Time	The string, specified by the <b>Format</b> property, is displayed. The <b>{0:[format]}</b> combination is replaced with the current system date and time formatted according to the <b>[format]</b> string. Use the <b>Format</b> <b>String Editor</b> of the <b>Format</b> property (see below) to select or construct the proper string.
User Name	The name of the current user, which was used to log into the operating system, is displayed.

## • Running Band

Specifies the name of the <u>band</u>, from which the Page Info gathers information. This allows you to implement <u>page numbering</u> independently for the report and its groups. For a tutorial on this, refer to <u>Add</u> <u>Page Numbers for Groups</u>.

By default, this property is not set to any value, meaning that the entire report is being taken into account.

## • Scripts

This property contains events, which you can handle with the required scripts. For more information on scripting, refer to <u>Handle Events via Scripts</u>.

## Start Page Number

Here you can set the start number for page numbering.

#### Visible

Specifies whether the control should be visible in print preview.

#### • Word Wrap

When this property is set to Yes, text contained in the control is wrapped to the next line if it doesn't fit the line or comes across a newline character. If the this property is set to No, the text in this case will be displayed on the same line until a newline character is entered.

#### Data

## • (Data Bindings)

If the current report is <u>bound to data</u>, this property allows you to bind some of the control's properties (Bookmark, Navigation URL and Tag) to a data field obtained from the report's data source, and to apply a <u>format string</u> to it. For more information on this, refer to <u>Display Values from a Database (Bind Report</u> <u>Elements to Data)</u>.

## • Tag

This property allows you to add some additional information to the control; for example its id, by which it can be then accessible via <u>scripts</u>.

If the current <u>report has a data source</u>, the Tag property can be bound to a data field obtained from the data source. To do this, expand the (Data Bindings) property and in the Tag.Binding drop-down selector, select the required data field.

# Design

• (Name)

Determines a control's name, by which it can be accessed in the <u>Report Explorer</u>, <u>Property Grid</u> or via <u>scripts</u>.

#### Layout

## • Location

Specifies the control's location, in <u>report measurement units</u>.

Size

Specifies the control's size, in report measurement units.

• Snap Line Margin

Specifies the margin (in <u>report measurement units</u>), which is to be preserved around the control when it is <u>aligned using Snap Lines</u>, or when other controls are aligned next to it.

## Navigation

## • Bookmark and Parent Bookmark

These properties are intended for the creation of a hierarchical structure within a report called a document map. For an explanation and help, refer to <u>Add Bookmarks</u>.

If the current <u>report has a data source</u>, the Bookmark property can be bound to a data field obtained from the data source. To do this, expand the (Data Bindings) property and in the Bookmark.Binding drop-down selector, select the required data field.

# • Navigation URL and Navigation Target

Use the Navigation URL property to specify a URL for web browser navigation when a user clicks the control. The web browser displays a page in a window or a frame as specified by the Navigation Target property. Note that a URL should have an appropriate prefix (e.g. "http://"). You can create cross-references within the report by assigning the name of the target control to the Navigation URL property, and setting the Navigation Target property to "\_self". For more information, refer to <u>Create Hyperlinks</u>. If the current <u>report has a data source</u>, the Navigation URL property can be bound to a data field obtained from the data source. To do this, expand the (Data Bindings) property and in the Navigation URL.Binding drop-down selector, select the required data field.

# Page Break

The **Page Break** control's sole purpose is to insert a page delimiter at any point within a report.

This control is visually represented by a short line, attached to the report's left margin, as shown in the following image.

Name: subreport1	Page Break control
Name: subreport2	

The Page Break control is useful when you need to insert a page break between controls within a <u>band</u> - for example, to divide subreports, so that the second subreport starts printing on a new page. Another example of the Page Break's use can be found in the following tutorial: <u>Limit the Number of Records per Page</u>.

# ☑Note

Note that when you need a page break before or after printing a certain band, you may set its **Page Break** property to **Before the Band** or **After the Band**, instead of using the Page Break control.

In the Property Grid, the Page Break control's properties are divided into the following groups.

## Appearance

## • Formatting Rules

Invokes the Formatting Rules Editor, allowing you to choose which rules should be applied to the control during report generation, and define the precedence of the applied rules. To learn more on this, refer to <u>Conditionally Change a Control's Appearance</u>.

## Behavior

## • Scripts

This property contains events, which you can handle with the required scripts. For more information on scripting, refer to <u>Handle Events via Scripts</u>.

## • Visible

Specifies whether the control should be visible in print preview.

## Design

## • (Name)

Determines a control's name, by which it can be accessed in the <u>Report Explorer</u>, <u>Property Grid</u> or via <u>scripts</u>.

## Layout

## Location

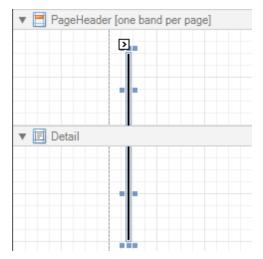
Specifies the control's location, in report measurement units.

## • Snap Line Margin

Specifies the margin (in <u>report measurement units</u>), which is to be preserved around the control when it is <u>aligned using Snap Lines</u>, or when other controls are aligned next to it.

# **Cross-band Line**

The **Cross-band Line** control allows you to draw a line through several <u>bands</u>. This can be useful if it is required to visually emphasize a section consisting of multiple band areas. In other aspects, it is similar to a regular <u>Line</u>.



Another cross-band control available is the Cross-band Box.

In the Property Grid, the Cross-band Line control's properties are divided into the following groups.

#### Appearance

#### • Foreground Color

Specifies the color of the control's line. This option is also available in the Formatting Toolbar ( $\Delta$ ).

#### • Formatting Rules

Invokes the Formatting Rules Editor allowing you to choose which rules should be applied to the control during report generation, and define the precedence of the applied rules. To learn more on this, refer to <u>Conditionally Change a Control's Appearance</u>.

#### • Line Style

You can select a solid (by default), dashed, dotted or mixed style for the line.

#### Behavior

## • Anchor Vertically

Specifies the vertical anchoring style of the control, so that after page rendering it stays attached to the top control, bottom control, or both.

#### Visible

Specifies whether the control should be visible in print preview.

#### Data

# • Tag

This property allows you to add some additional information to the control; for example its id, by which it then can be accessible via <u>scripts</u>.

# Design

#### • (Name)

Determines a control's name, by which it can be accessed in the <u>Report Explorer</u>, <u>Property Grid</u> or via <u>scripts</u>.

#### Layout

#### • End Band

Determines a band, in which the control finishes drawing.

• End Point

Determines the end point (from a band's upper left corner) where the control finishes drawing.

Location

Specifies the control's location, in report measurement units.

## • Snap Line Margin

Specifies the margin (in <u>report measurement units</u>), which is to be preserved around the control when it is <u>aligned using Snap Lines</u>, or when other controls are aligned next to it.

## • Start Band

Determines a band, in which the control starts drawing.

## • Start Point

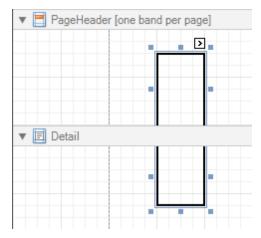
Determines the starting point (from a band's upper left corner) where the control starts drawing.

• Width

Specifies the line's width in <u>report measurement units</u>.

# **Cross-band Box**

The **Cross-band Box** control allows you to draw a rectangle through several <u>bands</u>. This can be useful if it is required to visually encompass a section consisting of multiple band areas.



Another cross-band control available is the Cross-band Line.

In the Property Grid, the Cross-band Box control's properties are divided into the following groups.

#### Appearance

#### • Borders, Border Color and Border Width

Specify border settings for the control.

• Formatting Rules

Invokes the Formatting Rules Editor, allowing you to choose which rules should be applied to the control during report generation, and define the precedence of the applied rules. To learn more on this, refer to <u>Conditionally Change a Control's Appearance</u>.

#### Behavior

## • Anchor Vertically

Specifies the vertical anchoring style of the control, so that after page rendering it stays attached to the top control, bottom control, or both.

Visible

Specifies whether the control should be visible in print preview.

#### Data

#### • Tag

This property allows you to add some additional information to the control; for example its id, by which it can then be accessible via <u>scripts</u>.

#### Design

• (Name)

Determines a control's name, by which it can be accessed in the <u>Report Explorer</u>, <u>Property Grid</u> or via <u>scripts</u>.

#### Layout

## • End Band

Determines a band, in which the control finishes drawing.

• End Point

Determines the end point (from a band's upper left corner) where the control finishes drawing.

• Location

Specifies the control's location, in <u>report measurement units</u>.

# • Snap Line Margin

Specifies the margin (in <u>report measurement units</u>), which is to be preserved around the control when it is <u>aligned using Snap Lines</u>, or when other controls are aligned next to it.

# • Start Band

Determines a band, in which the control starts drawing.

# • Start Point

Determines the starting point (from a band's upper left corner) where the control starts drawing.

# • Width

Specifies the width of the Box, in report measurement units.

# Subreport

The **Subreport** control allows you to include other reports in your current report.

There are several reasons for using subreports. The first one is to *reuse* reports. This can be of help if there is a particular report structure (*template*) that has to be included in all reports, and the report must have consistent appearance and functionality. A good example is a report header that contains the company information, logo, date, etc. The second reason for using subreports is creation of *master-detail* reports (or, *invoice* reports with hierarchically linked data).

However, for master-detail reports creation, another approach is recommended: using Detail Report bands.

F		Subreport Tasks	
	Name: subreport1 Report Source: Report Report Source Url: None	Report Source Report Source Url	report1
		Formatting Rules	(Collection)

You can click a subreport, to open the report to which it is linked in a new Design Panel.

In the Property Grid, the Subreport's properties are divided into the following groups.

#### Appearance

#### • Formatting Rules

Invokes the Formatting Rules Editor allowing you to choose which rules should be applied to the control during report generation, and define the precedence of the applied rules. To learn more on this, refer to <u>Conditionally Change a Control's Appearance</u>.

## **Behavior**

#### • Can Shrink

Determines whether a Subreport's height should be decreased if its contents don't completely fill the control.

Use this property to specify whether the height of the Subreport control should be taken into account when generating a report. This may be required, because usually the mutual location of report controls is considered when generating a report document. But, as the Subreport control actually represents a report itself, the height of a Subreport normally should not be taken into account in the generated report document.

Also, note that there is no Can Grow option for the Subreport control, as it always increases its height depending on its contents.

#### Scripts

This property contains events, which you can handle by the required scripts. For more information on scripting, refer to <u>Handle Events via Scripts</u>.

#### • Visible

Specifies a value indicating whether the current control should be printed (when set to Yes) or hidden (No) on report generation.

## Data

## Report Source

Determines a report to be included as a subreport.

If report classes of the application that invoked the Report Designer are compiled into one assembly, then they are available as items in this combo box.

## Report Source Url

Defines an URL of a report definition file (\*.REPX), to be used as a report source.

# Design

# • (Name)

Determines a control's name, by which it can be accessed in the <u>Report Explorer</u>, <u>Property Grid</u> or via <u>scripts</u>.

#### Layout

## Location

Specifies the control's location, in <u>report measurement units</u>.

## Size

Specifies the control's size, in report measurement units.

The Subreport isn't limited by the visible size of the control. The size of its actual content is taken into account when rendering the subreport on the page. Note that depending on its contents, its width is unlimited and its height is increased.

# • Snap Line Margin

Specifies the margin (in <u>report measurement units</u>), which is to be preserved around the control when it is <u>aligned using Snap Lines</u>, or when other controls are aligned next to it.

# **Report Bands**

The documents in this section details the available kinds of report bands and their settings.

In the Report Designer, a report is built upon *bands* - sections of varied type and purpose, where <u>report controls</u> are contained. Bands are featured in the <u>Designer Tab</u>, solely to represent different sections of a report document (such as detail, report or page header, or footer). They allow you to select exactly where a control should be printed, and how many times.

# **Band Types**

The following band types are available.

- Detail Band
- <u>Groop Header and Footer</u>
- <u>Report Header and Footer</u>
- Page Header and Footer
- Page Margin Bands
- Detail Report Band (for Master-Detail Reports)

#### **Manage Bands**

To manage bands in a report, click its <u>Smart Tag</u>, and in the invoked actions list, click the **Edit and Reorder Bands...** link.

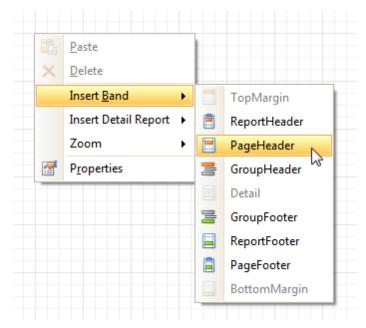
Then, in the invoked **Report Editor** you can easily add, remove and reorder bands, and adjust their options.

Report Tasks	
Design in Report Wizard <u>Edit and Reorder Bands</u> Data Source (none)	
Report Editor	
TopMargin         ReportHeader         PageHeader         GroupHeader 1         Detail         GroupFooter 1         ReportFooter         PageFooter         BottomMargin	Appearance Behavior Data Design Layout Misc V
	Close

Alternatively, you can invoke the **Report Editor** via any band's Smart Tag.

🔻 📃 PageHeader [one band per page] 🔇	Page Header Tasks
	Edit and Reorder Bands       Print On       Not with Report Header
	Formatting Rules (Collection)

To quickly insert a band of any type (except for the <u>Detail band</u>, since it is required in a report), right-click anywhere on a report's surface, and in the invoked <u>Context Menu</u>, point to **Insert Band**, and choose the band type.

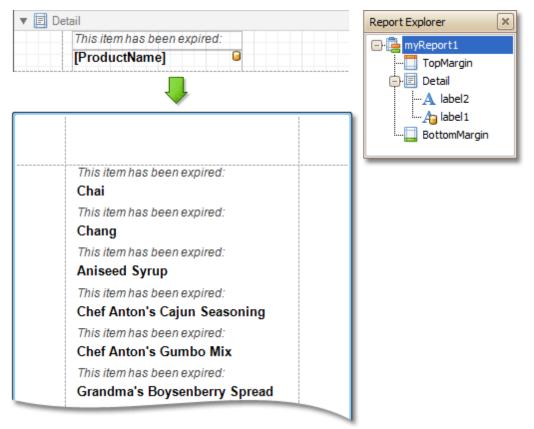


## See Also

Detail Band Grouping Bands Report Header and Footer Page Header and Footer Page Margin Bands Detail Report Band for Master-Detail Reports

# Detail Band

The **Detail** band is the central part of a report. Unlike other bands, it cannot be deleted - the present report structure includes the Detail band in its core. In a <u>data-bound report</u>, the contents of the Detail band are repeated for every data entry (e.g. if you're building a report listing, say, products, it will be rendered for each product in the database). And, if <u>static data</u> is also present in the Detail band, in the resulting report, it is repeated with each new entry.



In the Property Grid, the Detail Band's properties are divided into the following groups.

## Appearance

## • Background Color

Specifies the background color for the controls contained within the band. This option is also available in the <u>Formatting Toolbar</u> ().

## • Borders, Border Color and Border Width

Specify border settings for the controls contained within the band.

• Font

Specifies the font settings for the controls contained within the band. Some of these settings are available in the <u>Formatting Toolbar</u>.

## • Foreground Color

Specifies the text color for the controls contained within the band. This option is also available in the Formatting Toolbar ( $\underline{A}$ ).

## • Formatting Rules

Invokes the Formatting Rules Editor allowing you to choose which rules should be applied to the band during report generation, and define the precedence of the applied rules. To learn more on this, refer to <u>Conditionally Change a Control's Appearance</u>.

## Padding

Specifies indent values which are used to render the contents of the controls contained within the band.

# • Style Priority

Allows you to define the priority of various style elements (such as background color, border color, etc.). For more information on style inheritance, refer to <u>Understand Styles Concepts</u>.

#### Styles

This property allows you to define <u>odd and even styles</u> for the controls contained within the band, as well as to assign an existing style to them (or a newly created one). For more information on style inheritance, refer to <u>Understand Styles Concepts</u>.

#### • Text Alignment

Allows you to change the text alignment of the controls contained within the band. This option is also available in the <u>Formatting Toolbar</u>.

#### Behavior

#### Keep Together

As stated above, the detail band is printed repeatedly for every data entry. When the Keep Together option is on, the report engine tries to keep sequential detail band entries together. This option makes sense only when data is grouped or you're working with a master-detail report. In this case, the report engine tries to keep group contents on one page. If a group doesn't fit and it starts somewhere in the middle of a page, the report moves this group to a new page, thus trying to reduce the number of page breaks in continuous data.

#### • Multi-Column Options

This property allows you to arrange the printout of the band's content in several columns. For more information, refer to <u>Multi-Column Report</u>.

#### • Page Break

Use this property if the current report design requires that the detail section should be separated from previous sections or follow-ups. Specify the Before the Band or After the Band values to insert a page break before or after the current band. In many cases, this property may be used instead of the <u>Page</u> <u>Break</u> control.

#### Scripts

This property contains events, which you can handle by the required scripts. For more information on scripting, refer to <u>Handle Events via Scripts</u>.

#### Visible

Specifies whether the band should be visible in print preview.

## Data

## • Sort Fields

Invokes the Group Field Collection Editor, which enables you to specify the fields for sorting the records within the band, the sorting order (Ascending/Descending) for each field and the order sequence. For more information, refer to <u>Change or Apply Data Sorting to a Report</u>.

#### • Tag

This property allows you to add some additional information to the band; for example its id, by which it can then be accessible via <u>scripts</u>.

#### Design

#### • (Name)

Determines a band's name, by which it can be accessed in the <u>Report Explorer</u>, <u>Property Grid</u> or via <u>scripts</u>.

#### Layout

## Height

Specifies the band's height, in <u>report measurement units</u>.

# • Snap Line Padding

Specifies the padding (in <u>report measurement units</u>), which is to be preserved within the band when controls it contains are <u>aligned using Snap Lines</u>.

## Misc

# • Keep Together with Detail Reports

When this option is on, the Detail Band will be always printed on the same page together with its child <u>Detail Report Band</u>, or multiple bands.

# **Grouping Bands**

The **Group Header** and **Group Footer** bands are shown above and below each group. Usually, you don't need to manually manage these bands, as they are auto-created via the <u>Group and Sort Panel</u>. For more information, refer to <u>Change or Apply Data Grouping to a Report</u> and <u>Change or Apply Data Sorting to a Report</u>.

You may use the Group Header bands for grouping by multiple data fields in one of the following ways.

1.Add several Group Header bands. Specify one group field for each of these bands.



This results in nested grouping of the report's data.

Denmar	k						
	Ärhus						
10367	12/29/1994	Vaffeljernet	13.55				
10399	01/31/1995	Vaffeljernet	27.36				
10465	04/05/1995	Vaffeljernet	145.04				
10591	08/07/1995	Vaffeljernet	55.92				
10602	08/17/1995	Vaffeljernet	2.92				
10688	11/01/1995	Vaffeljernet	299.09				
10744	12/18/1995	Vaffeljernet	69.19				
10769	01/08/1996	Vaffeljernet	65.06				
10921	04/02/1996	Vaffeljernet	176.48				
10946	04/11/1996	Vaffeljernet	27.20				
10994	05/02/1996	Vaffeljernet	65.53				
	København						
10341	11/29/1994	Simons bistro	26.78				
10417	02/16/1995	Simons bistro	70.29				
10556	07/04/1995	Simons bistro	9.80				
10642	09/22/1995	Simons bistro	41.89				
10669	10/16/1995	Simons bistro	24.39				
10802	01/29/1996	Simons bistro	257.26				
11074	06/05/1996	Simons bistro	18.44				
Finland	Finland						
	Helsinki						
10615	08/30/1995	Wilman Kala	.75				
10673	10/19/1995	Wilman Kala	22.76				
10695	11/07/1995	Wilman Kala	16.72				

2.Specify several group fields for the **Group Fields** property of the Group Header band. The data will be grouped by certain combinations of field values.

	0.		
Denmark	Århus		
10367	12/29/1994	Vaffeljernet	13.55
10399	01/31/1995	Vaffeljernet	27.36
10465	04/05/1995	Vaffeljernet	145.04
10591	08/07/1995	Vaffeljernet	55.92
10602	08/17/1995	Vaffeljernet	2.92
10688	11/01/1995	Vaffeljernet	299.09
10744	12/18/1995	Vaffeljernet	69.19
10769	01/08/1996	Vaffeljernet	65.06
10921	04/02/1996	Vaffeljernet	176.48
10946	04/11/1996	Vaffeljernet	27.20
10994	05/02/1996	Vaffeljernet	65.53
Denmark	København		
10341	11/29/1994	Simons bistro	26.78
10417	02/16/1995	Simons bistro	70.29
10556	07/04/1995	Simons bistro	9.80
10642	09/22/1995	Simons bistro	41.89
10669	10/16/1995	Simons bistro	24.39
10802	01/29/1996	Simons bistro	257.26
11074	06/05/1996	Simons bistro	18.44
Finland	Helsinki		
10615	08/30/1995	Wilman Kala	.75
10673	10/19/1995	Wilman Kala	22.76
10695	11/07/1995	Wilman Kala	16.72

The Group Footer band is unnecessary without the corresponding Group Header band, to which its properties are similar. The Group Footer can be used to display group totals, or group page numbers.

In the <u>Property Grid</u>, the properties of both these bands are divided into the following groups.

#### Appearance

#### Background Color

Specifies the background color for the controls contained within the band. This option is also available in the <u>Formatting Toolbar</u> (<sup>bb</sup>).

## • Borders, Border Color and Border Width

Specify border settings for the controls contained within the band.

• Font

Specifies the font settings for the controls contained within the band. Some of these settings are available in the <u>Formatting Toolbar</u>.

#### • Foreground Color

Specifies the text color for the controls contained within the band. This option is also available in the Formatting Toolbar ( $\underline{A}$ ).

• Formatting Rules

Invokes the Formatting Rules Editor allowing you to choose which rules should be applied to the band during report generation, and define the precedence of the applied rules. To learn more on this, refer to <u>Conditionally Change a Control's Appearance</u>.

#### • Padding

Specifies indent values which are used to render the contents of the controls contained within the bands.

• Style Priority

Allows you to define the priority of various style elements (such as background color, border color, etc.). For more information on style inheritance, refer to <u>Understand Styles Concepts</u>.

#### Styles

This property allows you to define <u>odd and even styles</u> for the controls contained within the bands, as well as to assign an existing style to them (or a newly created one). For more information on style inheritance, refer to <u>Understand Styles Concepts</u>.

## • Text Alignment

## Behavior

## • Group Fields

This property is available for the Group Header band only. It invokes the Group Field Collection Editor, allowing you to add and remove grouping fields, define data fields to be used as grouping criteria and the grouping order (ascending or descending).

In most scenarios, it's quick and practical to use the <u>Group and Sort Panel</u>, rather than manually adjust the band's group fields collection. However, this is the only way to assign multiple group fields to a single Group Header.

## • Group Union

Determines whether group rows can be printed on different pages (in this case both Group Union and Group Footer Band.Group Union are set to None), or the entire group will be printed on a single page (if the Group Union is set to Whole Page).

Also, if a group can be split across pages, but you don't want a Group Header to be printed on a page if there is no data row below it (in case a group starts at the bottom of the page and there is enough room for only a Group Header), you may set the Group Union to With First Detail. In this case, if a Group Header is alone on a page, it will be moved to the beginning of the next page.

It is the same for the Group Footer. If you don't want it to be printed alone on a page, you may set its Group Union to With Last Detail, and the last group row from the previous page will be moved to the next page to be printed together with a Group Footer.

This property is quickly accessible via the band's <u>Smart Tag</u>.

# Keep Together

When this option is on, the report tries to fit the band contents entirely on one page, not allowing it to split across several pages. In general, if the contents are too large to fit on a single page, then the band is started on a new page, and continues on the following page.

## Level

Specifies the nesting level of a group band. The lower the level number, the closer the group band is to the Detail band. The numeration starts at zero. It is the parameter that identifies the Group Header / Group Footer band pairs.

This option is auto-defined when using the Group and Sort Panel.

## • Page Break

Use this property if the current report design requires that the band's section should be separated from previous sections or follow-ups. Specify the Before the Band or After the Band values to insert a page break before or after the current band. In many cases, this property may be used instead of the <u>Page</u> <u>Break</u> control.

## Print at Bottom

This property is available for the Group Footer band only. It determines whether the band should be printed at the bottom of a page, or immediately after the last group's details.

If a report contains several Group Footers with their Print at Bottom properties set to different values, then the outer Group Footer has the highest priority.

This feature is helpful when the Page Break property of the Group Header band is set to After the Band. In this instance each group starts a new page, and the Group Footer has two distinct places to reside - after the last row, or at the bottom of the page.

## • Repeat Every Page

This property improves the readability of reports with group contents that are several pages long. Without a repeated group header at the top of the page, the report may be difficult to read. This property is also accessible via the band's <u>Smart Tag</u>.

## Scripts

This property contains events, which you can handle with the required scripts. For more information on scripting, refer to <u>Handle Events via Scripts</u>.

## • Sorting Summary

This property is available for the Group Header band only. It allows you to <u>sort groups by a summary</u> <u>function result</u>.

# • Visible

Specifies whether the bands should be visible in print preview.

# Data

## • Tag

This property allows you to add some additional information to the band; for example its id, by which it can then be accessible via <u>scripts</u>.

## Design

## • (Name)

Determines a band's name, by which it can be accessed in the Report Explorer, Property Grid or via scripts .

#### Layout

# • Height

Specifies the band's height, in report units.

#### • Snap Line Padding

Specifies the padding (in <u>report measurement units</u>), which is to be preserved within the band when controls it contains are <u>aligned using Snap Lines</u>.

# **Report Header and Footer**

The **Report Header** and **Report Footer** are the only types of report bands rendered once per report.



The **Report Header** is the first band of a report on the first page (not counting <u>margins</u> as they are "out-of-page" zones). The Report Header also precedes the <u>Page Header</u>, making it the best place to display the report's name, company logo, <u>date of creation and user name</u>, etc.

And, if you plan to add a <u>Chart</u> that visualizes the report's data, place this control onto this band.

The **Report Footer** finalizes the informative part of the report. It is placed before the <u>Page Footer</u> and <u>Bottom</u> <u>Margin</u> on the report's last page. Use the Report Footer for report <u>grand totals</u> or conclusions.

In the **Property Grid**, the properties of these bands are divided into the following groups.

#### Appearance

#### Background Color

Specifies the background color for the controls contained within the band. This option is also available in the Formatting Toolbar (...).

• Borders, Border Color and Border Width

Specify border settings for the controls contained within the band.

• Font

Specifies the font settings for the controls contained within the band. Some of these settings are available in the <u>Formatting Toolbar</u>.

• Foreground Color

Specifies the text color for the controls contained within the band. This option is also available in the Formatting Toolbar ( $\underline{A}$ ).

• Formatting Rules

Invokes the Formatting Rules Editor allowing you to choose which rules should be applied to the band during report generation, and define the precedence of the applied rules. To learn more on this, refer to <u>Conditionally Change a Control's Appearance</u>.

• Padding

Specifies indent values which are used to render the contents of the controls contained within the bands.

• Style Priority

Allows you to define the priority of various style elements (such as background color, border color, etc.). For more information on style inheritance, refer to <u>Understand Styles Concepts</u>.

Styles

This property allows you to define <u>odd and even styles</u> for the controls contained within the bands, as well as to assign an existing style to them (or a newly created one). For more information on style inheritance, refer to <u>Understand Styles Concepts</u>.

#### Text Alignment

Allows you to change the text alignment of the controls contained within the bands. This option is also available in the <u>Formatting Toolbar</u>.

#### Behavior

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# • Keep Together

When this option is on, the report tries to fit the band contents entirely on one page, not allowing it to split across several pages. In general, if the contents are too large to fit on a single page, then the band is started on a new page, and continues on the following page.

# • Page Break

Use this property if the current report design requires that the band's section should be separated from previous sections or follow-ups. Specify the Before the Band or After the Band values to insert a page break before or after the current band. In many cases, this property may be used instead of the <u>Page</u> <u>Break</u> control.

# • Print at Bottom

This property is available for the Report Footer band only, and determines whether this band should be printed at the bottom of the last page, or immediately after the last report's details. The Report Footer has priority over the <u>Group Footer</u>'s Print at Bottom property, so the Group Footer can never be placed after the Report Footer.

## • Scripts

This property contains events, which you can handle with the required scripts. For more information on scripting, refer to <u>Handle Events via Scripts</u>.

# • Visible

Specifies whether the band should be visible in print preview.

## Data

## • Tag

This property allows you to add some additional information to the band; for example its id, by which it can then be accessible via <u>scripts</u>.

# Design

# • (Name)

Determines a band's name, by which it can be accessed in the <u>Report Explorer</u>, <u>Property Grid</u> or via <u>scripts</u>

## Layout

## • Height

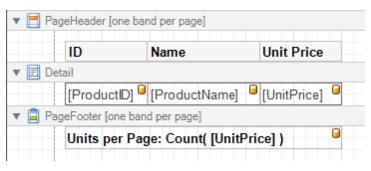
Specifies the band's height, in report units.

## • Snap Line Padding

Specifies the padding (in <u>report measurement units</u>), which is to be preserved within the band when controls it contains are <u>aligned using Snap Lines</u>.

# Page Header and Footer

The **Page Header** and **Page Footer** bands are located at the top and bottom of every page in a report.



The Page Header/Footer bands are the best place for information that should be printed on every page. For example, use them to display the header of a table which is continued from the previous page (an example can be found at the <u>Table Report</u> tutorial).

#### Note

If you insert page break right after the <u>Report Header</u> (by setting its **Page Break** to **After the Band**), the Page Footer and Page Header bands will not be printed on the first page.

In the Property Grid, the properties of these bands are divided into the following groups.

#### Appearance

#### Background Color

Specifies the background color for the controls contained within the band. This option is also available in the <u>Formatting Toolbar</u> (<sup>ab</sup>).

#### • Borders, Border Color and Border Width

Specify border settings for the controls contained within the band.

• Font

Specifies the font settings for the controls contained within the band. Some of these settings are available in the <u>Formatting Toolbar</u>.

• Foreground Color

Specifies the text color for the controls contained within the band. This option is also available in the Formatting Toolbar ( $\underline{A}$ ).

#### Formatting Rules

Invokes the Formatting Rules Editor, allowing you to choose which rules should be applied to the band during report generation, and define the precedence of the applied rules. To learn more on this, refer to <u>Conditionally Change a Control's Appearance</u>.

#### • Padding

Specifies indent values which are used to render the contents of the controls contained within the bands.

• Style Priority

Allows you to define the priority of various style elements (such as background color, border color, etc.). For more information on style inheritance, refer to <u>Understand Styles Concepts</u>.

Styles

This property allows you to define <u>odd and even styles</u> for the controls contained within the bands, as well as to assign an existing style to them (or a newly created one). For more information on style inheritance, refer to <u>Understand Styles Concepts</u>.

#### • Text Alignment

Allows you to change the text alignment of the controls contained within the bands. This option is also available in the <u>Formatting Toolbar</u>.

#### **Behavior**

Scripts

This property contains events, which you can handle with the required scripts. For more information on scripting, refer to <u>Handle Events via Scripts</u>.

## • Visible

Specifies whether the band should be visible in print preview.

#### Data

#### • Tag

This property allows you to add some additional information to the band; for example its id, by which it can then be accessible via <u>scripts</u>.

#### Design

• (Name)

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Determines a band's name, by which it can be accessed in the Report Explorer, Property Grid or via scripts

#### Layout

#### • Height

Specifies the band's height, in report units.

#### Snap Line Padding

Specifies the padding (in <u>report measurement units</u>), which is to be preserved within the band when controls it contains are <u>aligned using Snap Lines</u>.

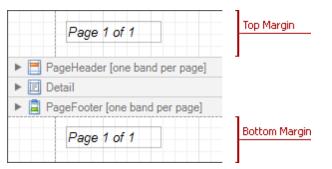
#### Misc

#### Print On

This property specifies whether the band should be printed on the same page with <u>Report Header and</u> <u>Report Footer</u> bands.

# **Page Margin Bands**

The **Top Margin** and **Bottom Margin** bands represent the top and bottom page margins. Unlike other bands, they are not accompanied by strips displaying their titles in the <u>Design Panel</u>.



They are intended for displaying <u>page numbers</u>, or some sort of supplementary information (e.g. <u>current system</u> <u>time</u> or the <u>user name</u>).

In the **Property Grid**, the properties of these bands are divided into the following groups.

## Appearance

Background Color

Specifies the background color for the controls contained within the band. This option is also available in the <u>Formatting Toolbar</u> (<sup>bb</sup>).

## • Borders, Border Color and Border Width

Specify border settings for the controls contained within the band.

• Font

Specifies the font settings for the controls contained within the band. Some of these settings are available in the <u>Formatting Toolbar</u>.

• Foreground Color

Specifies the text color for the controls contained within the band. This option is also available in the Formatting Toolbar ( $\underline{A}$ ).

• Formatting Rules

Invokes the Formatting Rules Editor allowing you to choose which rules should be applied to the band during report generation, and define the precedence of the applied rules. To learn more on this, refer to <u>Conditionally Change a Control's Appearance</u>.

• Padding

Specifies indent values which are used to render the contents of the the controls contained within the bands.

• Style Priority

Allows you to define the priority of various style elements (such as background color, border color, etc.). For more information on style inheritance, refer to <u>Understand Styles Concepts</u>.

Styles

This property allows you to define <u>odd and even styles</u> for the controls contained within the bands, as well as to assign an existing style to them (or a newly created one). For more information on style inheritance, refer to <u>Understand Styles Concepts</u>.

• Text Alignment

Allows you to change the text alignment of the controls contained within the bands. This option is also available in the <u>Formatting Toolbar</u>.

## Behavior

Scripts

This property contains events, which you can handle with the required scripts. For more information on scripting, refer to <u>Handle Events via Scripts</u>.

# • Visible

Specifies whether the band should be visible in print preview.

## Data

## • Tag

This property allows you to add some additional information to the band; for example its id, by which it can then be accessible via <u>scripts</u>.

#### Design

#### • (Name)

Determines a band's name, by which it can be accessed in the <u>Report Explorer</u>, <u>Property Grid</u> or via <u>scripts</u> .

#### Layout

## Height

Specifies the band's height, in report units.

#### Note

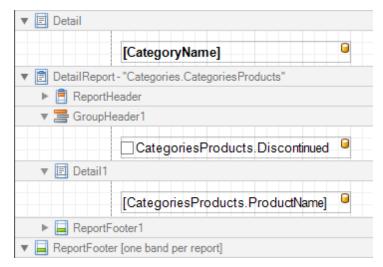
Note that this property is tied to the <u>report</u>'s Margins.Top (or Margins.Bottom) property, so that changing this property's value will cause the appropriate Margin value to be changed, and vice versa.

#### • Snap Line Padding

Specifies the padding (in <u>report measurement units</u>), which is to be preserved within the band when controls it contains are <u>aligned using Snap Lines</u>.

# **Detail Report Band for Master-Detail Reports**

The **Detail Report** band is a type of band used to incorporate one report into another in <u>master-detail reports</u>. It is quite different from the <u>Detail band</u>, since it holds the whole *detail* report in a *master-detail* report layout, and therefore can contain other types of bands within it.



There can be an unlimited number of Detail Report bands nested inside one another.

►	1	ReportHeader [one band per report]
►	E	Detail
▼		DetailReport
	⊧	🖹 ReportHeader2
	►	🗉 Detail1
	►	DetailReport1
	₹	🗐 DetailReport2
		▶ 🗐 Detail3
		DetailReport4
	►	ReportFooter2
•		DetailReport3
	⊧	🖹 ReportHeader1
	►	🗉 Detail4
	►	ReportFooter1
►		ReportFooter [one band per report]

To add a Detail Report band, use the <u>Context Menu</u>. If the <u>bound data source</u> contains a *data relationship*, the submenu will contain an item with its name. Otherwise, add an unbound detail report and specify its data binding options later.

	<u>P</u> aste			
×	<u>D</u> elete			
	Insert <u>B</u> and	۲		
	Insert Detail Report	×	Unbound	
	Zoom	۲	"CategoriesProducts"	
<b>P</b>	P <u>r</u> operties			6

In the **Property Grid**, the properties of this band are divided into the following groups.

#### Appearance

## • Background Color

Specifies the background color for the controls contained within the band. This option is also available in the <u>Formatting Toolbar</u> (<sup>bb</sup>).

• Borders, Border Color and Border Width

Specify border settings for the controls contained within the band.

• Font

Specifies the font settings for the controls contained within the band. Some of these settings are available in the <u>Formatting Toolbar</u>.

#### • Foreground Color

Specifies the text color for the controls contained within the band. This option is also available in the Formatting Toolbar ( $\underline{A}$ ).

#### • Formatting Rules

Invokes the Formatting Rules Editor, allowing you to choose which rules should be applied to the band during report generation, and define the precedence of the applied rules. To learn more on this, refer to <u>Conditionally Change a Control's Appearance</u>.

#### Padding

Specifies indent values which are used to render the contents of the controls contained within the band.

Text Alignment

Allows you to change the text alignment of the controls contained within the band. This option is also available in the <u>Formatting Toolbar</u>.

#### Behavior

Level

Specifies the order of several Detail Report Band objects in a report. It allows the reordering of different Detail Report Bands at the same level of <u>master-detail relationships</u>. The lower the level number, the closer the band is to the Detail band.

• Page Break

Use this property if the current report design requires that the band's section should be separated from previous sections or follow-ups. Specify the Before the Band or After the Band values to insert a page break before or after the current band. In many cases, this property may be used instead of the <u>Page</u> <u>Break</u> control.

#### • Print when Data Source is Empty

Specifies whether the band should be printed if its data source is empty.

#### Scripts

This property contains events which you can handle with the required scripts. For more information on scripting, refer to <u>Handle Events via Scripts</u>.

Visible

Specifies whether the band should be visible in print preview.

# Data

# • Data Adapter

Determines a Detail Report Band's data adapter that provides the detail data for the report. To learn more, refer to <u>Master-Detail Report (Detail Report Bands)</u>.

## • Data Member

Determines a name of the data relationship established within the bound data source. To learn more, refer to <u>Master-Detail Report (Detail Report Bands</u>).

## Data Source

Determines the data source that provides the detail data for the report. If this property isn't defined, the detail report gets data from the master report's data source. To learn more, refer to <u>Master-Detail Report</u> (Detail Report Bands).

# • Filter String

Allows you to invoke the Filter String Editor, which is intended to easily define a filtering condition for a detail report's data. For more information, refer to <u>Change or Apply Data Filtering to a Report</u>.

# • Tag

This property allows you to add some additional information to the band; for example its id, by which it can then be accessible via <u>scripts</u>.

# • XML Data Path

Allows you to define a path to the data contained in an XML file. The data contained in the file will then be used as the Detail Report Band's data source.

In this case, the Data Member property will specify the bound list in the XML data source.

#### Note

Note that a detail report uses the XML Data Path property value only when the Data Source property is set to None. The XML Data Path property has a lower priority than the Data Source property.

## Design

# • (Name)

Determines a band's name, by which it can be accessed in the Report Explorer, Property Grid or via scripts

# Detail Print Count

Specifies how many times the <u>Detail</u> band should be printed when a data source is defined for the subreport, and it is not empty.

## Detail Print Count when Data Source is Empty

Specifies how many times the Detail band should be printed when no data source is defined for the subreport.

## Structure

## • Bands

Allows you to invoke the Report Editor intended to manage and customize the report's bands.

# **Report Settings**

This document details settings that affect the entire report.

A **Report** is the main object in the Report Designer, as it's the document being edited. A typical report is shown in the following image (as it looks in the <u>Designer Tab</u>).

<ul> <li>ReportHeader [one band per report]</li> </ul>	
Products by Categ	ories
▼ 🚍 GroupHeader1	
Category: [CategoryID]	
▼ 🗐 Detail	
[ProductName]	Unit Price: [UnitPrice!\$0.00]
	Units in Stock: [UnitsInStock]
▼ 🚍 GroupFooter1	
Total Units in Stock: Sum(	[UnitsInStock])

While the main report's properties can be accessed via the report's <u>Smart Tag</u>, the complete settings list is available in the <u>Property Grid</u>, where all the report's properties are divided into the following groups.

## Appearance

## Background Color

Specifies the background color of report elements. This option is also available in the Formatting Toolbar (

# • Borders, Border Color and Border Width

Specify border settings for report elements.

• Font

Specifies the font settings for report elements. Some of these settings are available in the <u>Formatting</u> <u>Toolbar</u>.

• Foreground Color

Specifies the text color for report elements. This option is also available in the Formatting Toolbar ( $\Delta$ ).

• Formatting Rule Sheet

Invokes the Formatting Rule Sheet Editor, allowing you to manage and customize formatting rules, which can then be defined for a report's bands and controls. To learn more on this, refer to <u>Conditionally</u> <u>Change a Control's Appearance</u>.

• Formatting Rules

Invokes the Formatting Rules Editor, allowing you to choose which rules should be applied to the report during report generation, and define the precedence of the applied rules. To learn more on this, refer to <u>Conditionally Change a Control's Appearance</u>.

• Padding

Specifies indent values used to render the contents of a report's controls.

Page Color

Specifies the fill color for report pages. This color may be <u>changed later</u> in a report's Print Preview.

Style Sheet

Allows you to invoke the Styles Editor, which is intended to manage and customize a report's style sheets. To learn more on this, refer to <u>Store and Restore Style Sheets</u>.

#### • Style Sheet's Path

Allows you to define a path to the style sheet contained in a report style sheet file (.REPSS). To learn more on this, refer to <u>Store and Restore Style Sheets</u>.

#### • Text Alignment

Allows you to change the alignment of a report controls' text. This option is also available in the <u>Formatting Toolbar</u>.

#### Watermark

Allows you to customize a report's watermark options. For more information about this, refer to <u>Create or</u> <u>Modify Watermarks of a Report</u>.

## Behavior

#### • Display Name

Specifies the name of the report, which is displayed in its Design Panel tab.



## • Export Options

Allows you to set the export options for each file type (PDF, XLS, TXT, etc.). These options vary with the file type.

#### • Measure Units

Allows you to <u>choose units of measurement</u> for a report (one hundredth of an inch or a tenth of a millimeter).

#### Print when Data Source is Empty

#### • Script Language

Allows you to choose the programming language to be used in <u>scripting</u> (C#, Visual Basic or J#).

• Script References

Allows you to manage the collection of strings that represent the paths to the assemblies used by the <u>scripts</u> in a report.

#### Scripts

This property contains events which you can handle with the required scripts. For more information on scripting, refer to <u>Handle Events via Scripts</u>.

## • Show Margin Lines in Preview

The page margin lines are dotted lines shown on the currently selected page in the report's preview. Use this property to change the visibility of these lines.

## • Vertical Content Splitting

Allows you to choose whether report controls outside the right page margin should be split across pages, or moved in their entirety to the next page. This option is useful for the <u>cross-tab reports</u> creation.

#### Visible

Specifies whether a report should be created in print preview.

# Data

# • Calculated Fields

Allows you to access a report's <u>calculated fields</u> collection.

# • Data Adapter

Determines a report's data adapter used to populate the report's data source. It is created automatically when the Data Member property is defined. To learn more about this, refer to <u>Bind a Report to Data</u>.

• Data Member

Determines a specific list in a report's Data Source, for which the Report Designer objects display data. To learn more about this, refer to <u>Bind a Report to Data</u>.

#### Note

Usually, it is not necessary to specify the Data Member property when binding a report to data. This property should only be set directly if the dataset contains more than one table.

#### Data Source

Determines a report's data source. To learn more about this, refer to **Bind a Report to Data**.

#### • Filter String

Allows you to invoke the Filter String Editor, which is intended to easily define a filtering condition for a report's data. For more information about this, refer to Change or Apply Data Filtering to a Report.

• Tag

This property allows you to add some additional information to a report; for example its id, by which it can then be accessible via <u>scripts</u>.

#### • XML Data Path

Allows you to define a path to data contained in an external XML file. The data contained in the file will then be used as a report's data source.

#### Design

#### • (Name)

Determines a report's name, by which it can be accessed in the <u>Report Explorer</u>, <u>Property Grid</u> or via <u>scripts</u>.

#### Data Source's Schema

Allows you to load an XML/XSD file, containing the schema of a report's data source.

#### • Designer Options

Contains the following options.

#### - Show Designer's Hints

The designer hints are intended to provide tooltips, both describing the purpose of certain report elements for inexperienced users, and describing the reasons and solutions for possible export or printing warnings. By using this property, these hints can be turned on or off.

Field List	×
🖃 📵 myDataSet	
🕀 🧱 Products	
Parameters	Drag-and-drop this item to create a table with its items;
	- or -
	Drag this item with the right mouse button or SHIFT
	to create a 'header' table with field names;
	- or -
	Use the context menu to add a calculated field or parameter.
	DataMember: Products

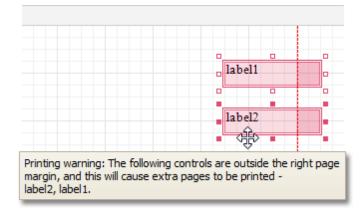
#### - Show Export Warnings

The export warnings appear when report controls are overlapped, indicating that a report layout may be incorrect when exporting to certain table-based formats (such as XLS, HTML or RTF).

label1	lah d
be exp	t warning: The following controls are overlapped and may ported to HTML, RTF, XLS, XLSX, CSV and Text incorrectly - , label1.

# - Show Printing Warnings

The printing warnings are intended to notify you that some of a report's controls are placed outside the right page margin, so that the report contains unnecessary pages.



# • Detail Print Count

Specifies how many times the <u>Detail</u> band should be printed when a data source is defined for the report, and it is not empty.

## • Detail Print Count when Data Source is Empty

Specifies how many times the Detail band should be printed when no data source is defined for the report.

• Draw the Grid

Determines whether to draw the <u>Snap Grid</u> when a report is being designed.

## • Snap Grid Size

Determines the size of the Snap Grid's cells.

## Snap to Grid

Specifies whether to snap controls to the Snap Grid when they are located or resized.

## • Snapping Mode

Specifies the snapping mode for report elements when they are being <u>aligned using the Snap Grid</u>.

## Navigation

## Bookmark

Allows you to define how a report is named in the document map when the <u>report bookmarks</u> are implemented. By default, it is synchronized with the report's Name property.

# Page Settings

## • Landscape

Determines whether the page orientation is Landscape (when set to Yes) or Portrait (when set to No).

## • Margins

Determines the width of a report's margins (measured in report units).

#### Note

Note that the report's Margins.Top and Margins.Bottom properties are tied to the Height property of the <u>Page Margin</u> <u>Bands</u>. So, changing these properties' values will cause changing the appropriate bands' Height value as well, and vice versa.

## • Page Height

Specifies page height, in <u>report units</u>. This property can only be set if the Paper Kind property is set to Custom.

## • Page Width

Specifies page width, in <u>report units</u>. This property can only be set if the Paper Kind property is set to Custom.

## • Paper Kind

Determines the type of paper for a report. Setting this property to any value different from Custom will prevent the Page Height, Page Width and Paper Name properties from being customized.

# ☑Note

If the Paper Kind property is set to Custom, then the printer paper will be selected according to the Paper Name

property's value. In this case, it's also necessary to set the Page Width and Page Height properties to the corresponding values of the paper selected.

Paper Name

Determines the name of the custom paper used in the printer that will print the document.

The Paper Name property's value is in effect only when the Paper Kind property is set to Custom. If the printer on which a document is printed doesn't support the paper type specified by the Paper Name property's value, then it will default to the Letter paper size. In this case, it's also necessary to set the Page Width and Page Height properties to the corresponding values of the selected paper.

• Printer Name

Determines the name of the printer to use when printing a report. Note that the specified printer should be installed on the machine.

#### • Using Settings of the Default Printer

Specifies which of the default printer's settings should be used when printing a report.

#### Parameters

#### Parameters

Allows you to access a report's parameters collection.

• Request Parameters

Allows you to define whether it's required to request the values of a report's <u>parameters</u> when generating the report.

#### Printing

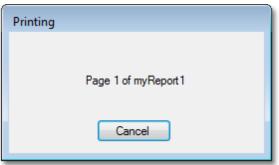
#### • Show Print Margin Warnings

Specifies whether an error message is shown when the page margins are set outside the printable area.

Printing	
?	One or more margins are set outside the printable area of the page. Continue?
	Yes

## Show Print Status Dialog

Specifies whether a print status dialog is shown when a document is being printed.



## Structure

• Bands

Allows you to invoke the Report Editor, intended to manage and customize a report's bands.

# Report Wizard

The **Report Wizard** is a tool that allows you to easily create reports based on built-in templates. Using this tool, you can do the following.

- Create a new report from scratch In the main menu, select File | New with Wizard... or press CTRL+W.
- Edit an existing report

Click the report's <u>Smart Tag</u> and in the invoked actions list, click the **Design in Report Wizard...** context link.

Data Member	Report Tas	Re	< Rep	rt Tasks		
Data Source (none)	Design ir		De			
Data Member V Data Adapter (none) V Filter String	Edit and	E	. Edi			
Data Adapter (none)	Data Sour	D	Dat	Source	(none)	$\checkmark$
Filter String	Data Mem	D	Dat	Member		$\sim$
	Data Adap	D	Dat	Adapter	(none)	$\sim$
	Filter Strin	Fi	Filte	String		
-	Measure L	м		ure Units	Hundredths of an Inch	$\checkmark$
· Formatting Rules (Collection)	Formattin	F	- For	atting Rules	(Collection)	•••
Formatting Rule Sheet (Collection)	Formatting	F		atting Rule Sheet	(Collection)	
Style Sheet (Collection)	Style Shee	S	Sty	Sheet	(Collection)	
Watermark (None)	Watermar	N	Wa	ermark	(None)	

## Note

In this case, data binding steps are omitted, since a report already has a bound data source. Note that the initial report layout will be lost after completing the wizard.

The Report Wizard provides two different ways to setup your report.

<u>Standard Report Wizard</u>

Using this wizard, you can easily create a banded report displaying data in a tabular format. While setting up your report, you'll be able to group data, add totals to your report, apply one of the predefined report styles, etc.

• Label Report Wizard

This wizard is useful if you need to print out labels. In this case, you're likely to purchase label paper that meets your particular requirements. Depending on paper supplier and label type, your report will need to generate labels with a specific size and location within paper sheets.

With the Label Report Wizard, you won't have to adjust these settings manually, since we provide a wide choice of paper suppliers and their products. Simply choose your paper type, and the report is adjusted automatically. After completing the wizard, you get an empty report that clearly indicates label boundaries, and of course, properly positions labels within paper sheets.

# **Standard Report Wizard**

The **Report Wizard** allows you to create reports of two kinds - **standard reports** and <u>label reports</u>. To create a standard report, <u>invoke the Report Wizard dialog</u> and choose the **Standard Report** option on the **Welcome** page.

Report Wizard	
3% S.52	Welcome to the Report Wizard
	This wizard helps you automatically create a report according to the selected wizard options.
and a second sec	Choose a report type and click Next.
	Eeport Type     Standard Report
	O Label Report
	Cancel < Back Next > Finish

After completing the Standard Report wizard, you will get a tabular banded report. Depending on how many wizard steps you complete (you don't necessarily have to go through all the pages), you can apply data grouping, display totals, select one of the predefined style sheets, etc.

The following image shows a sample report created using the Standard Report Wizard.

•	st Report			
Category ID	-			
ProductID	Product Name	Unit Price	Units In Stock	Units On Order
1	Chai	\$18.00	39	0
2	Chang	\$19.00	17	40
24	Guaraná Fantástica	\$4.50	20	0
34	Sasquatch Ale	\$14.00	111	0
35	Steeleye Stout	\$18.00	20	ő
38	Côte de Blave	\$263.50	17	ő
39	Chartreuse verte	\$18.00	69	ő
43		\$46.00	17	10
67	Laughing Lumberjack Lager		52	0
70	Outback Lager	\$15.00	15	10
75	Rhönbräu Klosterbier	\$7.75	125	0
76	Lakkaliköön	\$18.00	57	0
Avg		\$37.98		
Category ID	2			
ProductID	Product Name	Unit Price	Units In Stock	Units On Order
3	Aniseed Symp	\$10.00	13	70
4	Chef Anton's Cajun Seasoning	\$22.00	53	0
5	Chef Anton's Gumbo Mix	\$21.35	0	0
6	Grandma's Boysenberry Spread	\$25.00	120	0

Use the links below to learn more about every step of the Standard Report wizard.

Depending on the method you used to <u>invoke the Wizard</u>, you may be creating an entirely new report or modifying an existing one. Creating reports from scratch requires database connection knowledge. In these cases, it's better if you contact your application administrator or vendor for assistance with the first three steps of the wizard. If you're modifying an existing report, you'll skip these initial data binding steps and start with <u>Step 4 - Choose Columns to</u> <u>Display in Your Report</u>.

- Step 1 Enter a Dataset Name
- <u>Step 2 Choose a Data Connection</u>
- Step 3 Choose the Table or View
- Step 4 Choose Columns to Display in Your Report
- Step 5 Add Grouping Levels
- Step 6 Summary Options
- Step 7 Choose Report Layout
- Step 8 Choose Report Style
- Step 9 Enter a Report Title

# Step 1 - Enter a Dataset Name

## 

This wizard step appears only if you're creating a new report from scratch. In this instance, familiarity with database connections is required, so we recommend that you contact your application administrator or vendor for assistance. If you're modifying an existing report, you will skip this step and start with <u>Step 4 - Choose Columns to Display in Your Report</u>.

The first page is intended to set the dataset name, which will be used in the report (e.g. in the Field List).

Report Wizard	
Create a new dataset The dataset contains the tables and columns you need for your report.	ALLA
In order to create a new dataset, first give it a name: myDataSet	
Cancel < Back Next > Finish	

# Note

When specifying the dataset name you need to avoid special characters, such as: whitespace,  $!, #, \%, \$, ^, \&, *, (, ), -, +, =, \backslash, /, etc.$ 

Then, click **Next** to proceed to <u>Step 2</u> to select a data connection.

# Step 2 - Choose a Data Connection

#### ᢙNote

This wizard step appears only if you're creating a new report from scratch. In this instance, familiarity with database connections is required, so we recommend that you contact your application administrator or vendor for assistance. If you're modifying an existing report, you will skip this step and start with <u>Step 4 - Choose Columns to Display in Your Report</u>.

## Purpose

Connect to a database whose data will be shown in your report.

#### **Page Interface**

On this page you can either select one of the data connections currently available in the drop-down list, or create a new one. To create a new connection, click the **New Connection...** button. It invokes a <u>Data Link Properties</u> dialog, allowing you to set up a new database connection.

Report Wizard
Choose a data connection From this information you'll be able to choose the tables and columns for your dataset in the next step.
Choose from the list of data connections currently in the Wizard, or add a new connection if the one you want is not listed.
Which connection should the wizard use?
New Connection     Connection String:
Cancel < Back Next > Finish

Once a connection has been set up, click **Next** to proceed to <u>Step 3 - Choose the Table or View</u>.

## ᢙNote

This wizard step appears only if you're creating a new report from scratch. In this instance, familiarity with database connections is required, so we recommend that you contact your application administrator or vendor for assistance. If you're modifying an existing report, you will skip this step and start with <u>Step 4 - Choose Columns to Display in Your Report</u>.

# Purpose

Select a table or a view, whose data will be used in your report.

## **Page Interface**

The list on the left-hand side shows all tables and views available in the database you specified in the previous wizard step. To select a required item, click it and then press the right arrow (>) button.

Report Wizard		
Choose the table or view The table or view you choose det your report.	ermines which columns will be available in	
What item do you want to access?		
Available item(s):	Selected item:	
Tables     Categories     Customers     EmployeeCustomers     Employees     Order Details     Orders     Shippers     Suppliers     Views	> <	
Canc	el < Back Next >	Finish

#### Note

Note that you can select only one table or view to be bound to the report. Therefore, it's impossible to create a master-detail report with this wizard.

Click Next to proceed to Step 4 - Choose Columns to Display in Your Report.

# Step 4 - Choose Columns to Display in Your Report

## Purpose

Choose fields (attributes) whose data will be displayed in your report. The selected fields and corresponding captions will be automatically added to your report, arranged one under another.

# Page Interface

The list on the left-hand side shows all available fields (attributes). To select the required fields, double-click them or drag them to the list box on the right-hand side. Another way to select fields is to use arrow buttons to move them back and forth.

Note that you can move multiple fields at once. To do this, you first need to select them by clicking while holding CTRL or SHIFT, or by using SHIFT+UP ARROW or SHIFT+DOWN ARROW shortcuts.

Report Wizard		
Choose columns to display in your report Your report can display any of the columns available in the dataset.		
Which columns do you want to display in your report?   Available fields:   Discontinued   EAN13   ProductID   QuantityPerUnit   ReorderLevel   SupplierID   Cancel   < Back		

## Note

To continue or finish report creation, you must select at least one field.

## Result

You can stop the wizard at this step by clicking **Finish**. In this case, your report will look similar to the image below.

Report1	
Category ID	1
Product Name	- Chai
Units On Order	0
Unit Price	\$18.00
Units In Stock	39
Category ID	1
Product Name	Chang
Units On Order	40
Unit Price	\$19.00
Units In Stock	17
Category ID	2
Product Name	Aniseed Syrup
Units On Order	70
Unit Price	\$10.00
Units In Stock	13
Category ID	2
Product Name	Chef Anton's Cajun Seasoning
Units On Order	0
Unit Price	\$22.00
Units In Stock	53

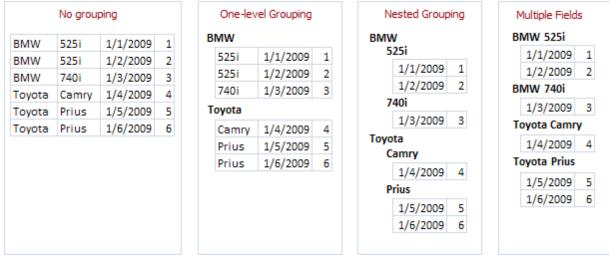
If you want to customize your report further, click **Next** to proceed to <u>Step 5 - Add Grouping Levels</u>.

# Step 5 - Add Grouping Levels

#### Purpose

This page allows you to group data in your report. For instance, if you are displaying car sales information, you may want to keep records corresponding to the same model together. Each set of records with the same model will become a "group" with its own header.

Nested grouping and grouping against multiple fields are fully supported. The following image illustrates all basic grouping types.



#### Note

If you don't need to group your data, simply click **Next** on this page to skip this step.

#### Page Interface

The list on the left-hand side displays data fields that can be used to group data. To apply grouping, do one of the following.

- Select columns and click the right arrow (>) button.
- Drag required columns to the box on the right-hand side.
- Double-click columns.

Note that grouping fields on the right-hand side can be selected by clicking them. This is useful if you need to remove them or change their order. To accomplish the latter, use the up arrow ( $\Box$ ) and down arrow ( $\Box$ ) buttons.

Report Wizard			
Do you want to add any grouping levels? You can have several groups, each with a single field value, or specify several fields in the same group.			
<ul> <li>ProductName</li> <li>UnitPrice</li> <li>UnitsInStock</li> <li>UnitsOnOrder</li> </ul>	Fiority	CategoryID Discontinued ProductName, UnitPrice, UnitsInStock, UnitsOnOrder	
	Cancel	< Back Next > Finish	

# Result

You can stop the wizard on this step by clicking **Finish**. In this case, your report will look similar to the image below.

Report1					
Category ID	Discontinued	Product Name	Unit Price	Units In Stock	Units On Order
1					
		Chai	\$18.00	39	D
		Chang	\$19.00	17	40
		Sasquatch Ale	\$14.00	111	0
		Steeleve Stout	\$18.00	20	Ď
		Côte de Blaye	\$263.50	17	Ď
		Chartreuse verte	\$18.00	69	0
		Ipoh Coffee	\$46.00	17	10
		Laughing Lumberjac Lager		52	D
		Outback Lager	\$15.00	15	10
		Rhönbräu Klosterbie		125	0
		Lakkalikööri	\$18.00	57	Ď
	~				
	Ŧ	Guaraná Fantástica	\$4.50	20	D
2		Guatalia Falitastica	34.30	20	
-					
		Aniseed Syrup	\$10.00	13	70
		Chef Anton's Cajun Seasoning	\$22.00	53	D
		Grandma's Boysenberry Spread	\$25.00	120	D
		Northwoods Cranberry Sauce	\$40.00	6	D
		Genen Shouyu	\$15.50	39	D
		Gula Malacca	\$19.45	27	D
		Sirop d'érable	\$28.50	113	D
		Vegie-spread	\$43.90	24	0
		Louisiana Fiery Hot Pepper Sauce	\$21.05	76	D
		Louisiana Hot Spice Okra	1\$17.00	4	100
		Original Frankfurter grüne Soße	\$13.00	32	D
		Bane pone			
	×				
		Chef Anton's Gumbo Mix	\$21.35	0	0

If you want to customize your report further, click **Next**. If data grouping has been applied on this page, you'll proceed to <u>Step 6 - Summary Options</u>. If you haven't grouped your data, you'll skip the Summaries step and go to <u>Step 7 - Choose Report Layout</u>.

# **Step 6 - Summary Options**

## Note

This wizard step is only available if you've applied data grouping in the previous step (<u>Step 5 - Add Grouping Levels</u>). If you haven't grouped data, this step is skipped.

## Purpose

Use this page to specify totals to be displayed for each data group and grand totals for the entire report. For instance, you may need to display the sum of values in a particular field, the average value, etc. Specified totals will be displayed after corresponding groups, and in the report footer.

## Page Interface

This page displays all available numerical and date-time fields that aren't used to group data. Using the check box table, you can specify which functions should be calculated for these fields.

Sometimes, data fields can contain empty values (this is different from, say, zero in a numeric field). If you don't want to take these values into account when calculating totals, check **Ignore NULL values**. Otherwise, these values will be treated as zeros for numeric fields and the earliest system date for date-time fields.

Report Wizard		
Summary Options What summary	values would you like calculated?	¥ ¥
Field Name	Sum Avg Min Max Count	values
UnitPrice		
UnitsInStock		
UnitsOnOrder		
	Cancel < Back Next >	Finish

#### Result

You can stop the wizard on this step by clicking **Finish**. In this case, your report will look similar to the image below.

Report1				
Category ID	Product Name	Unit Price	Units In Stock	Units On Order
1				
	Chai	\$18.00	39	0
	Chang	\$19.00	17	40
	Guaraná Fantástica	\$4.50	20	0
	Sasquatch Ale	\$14.00	111	0
	Steeleye Stout	\$18.00	20	0
	Côte de Blaye	\$263.50	17	0
	Chartreuse verte	\$18.00	69	0
	lpoh Coffee	\$46.00	17	10
	Laughing Lumberjack Lager	\$14.00	52	0
	Outback Lager	\$15.00	15	10
	Rhönbräu Klosterbier	\$7.75	125	0
	Lakkalikööri	\$18.00	57	0
Sum			559	
Avg		\$37.98		
Max				40
2				
	Aniseed Syrup	\$10.00	13	70
	Chef Anton's Cajun	\$22.00	53	0

If you want to customize your report further, click **Next** to proceed to <u>Step 7 - Choose Report Layout</u>.

# Step 7 - Choose Report Layout

#### Purpose

This page sets the layout of elements in your report. If you haven't applied data grouping, you can specify how data field values are arranged - into a table, one under another, etc. If report data is grouped, you can choose one of the available indentation styles for nested elements.

Additionally, this page allows you to specify the page orientation for your report.

#### Page Interface

The following options are available if data grouping has been applied.

Report Wizard					
How would you like to lay out your report? The report's layout specifies the way in which the selected data fields are arranged on report's pages.					
	Layout	Orientation			
XXXXXXX XXXX XXXX XXXX XXXX XXXX XXXX XXXX XXXX	<ul> <li>Stepped</li> <li>Outline 1</li> <li>Outline 2</li> <li>Align Left 1</li> <li>Align Left 2</li> </ul>	<ul> <li>Portrait</li> <li>Landscape</li> <li>A</li> <li>A</li> <li>o all fields fit on page</li> </ul>			
	Cancel < Back N	ext >			

If data hasn't been grouped, you will see the following report layout options.

Olumnar	
O Tabular	
-	
<ul> <li>Justified</li> </ul>	

If you want to customize your report further, click **Next** to proceed to <u>Step 8 - Choose Report Style</u>. Otherwise, click **Finish** to complete report customization.

# Step 8 - Choose Report Style

# Purpose

Apply a predefined style sheet to your report.

# Page Interface

Select one of the predefined styles from the list box.

Report Wizard	
What style would you like? The report's style specifies the appearance	of your report.
XXXXXXX         XXXX XXX         XXXX XXXX         XXXXX	Bold Casual Compact Corporate Formal
Cancel	< Back Next > S Finish

If you want to customize your report further, click **Next** to proceed to <u>Step 9 - Enter a Report Title</u>. Otherwise, click **Finish** to complete report customization.

# Step 9 - Enter a Report Title

# Purpose

Specifies the report title.

# Page Interface

Enter a title string into the editor and click **Finish** to complete report creation.

Report Wizard	
8%	What title do you want for your report?
	myReport1
	That's all the information the wizard needs to create your report.
	Cancel < Back Next > Finish

# Label Report Wizard

The **Report Wizard** allows you to create reports of two kinds - <u>standard reports</u> and **label reports**. To create a label report, <u>invoke the Report Wizard dialog</u> and choose the **Label Report** option on the **Welcome** page.

Report Wizard		
	Welcome to the Report Wiz This wizard helps you automatically create a report according to the selected wizard options.	
	Choose a report type and click Next.	
	Report Type         Standard Report         Label Report	
	Cancel < Back Next >	Finish

After completing the Label Report wizard, you will get a blank report that generates labels of a particular size. Since the report designer will clearly indicate the label area, you can then populate this area with the required content and print out your labels.

Use the links below, to learn more about every step in the Label Report wizard.

- Step 1 Select a Label Type
- Step 2 Customize Label Options

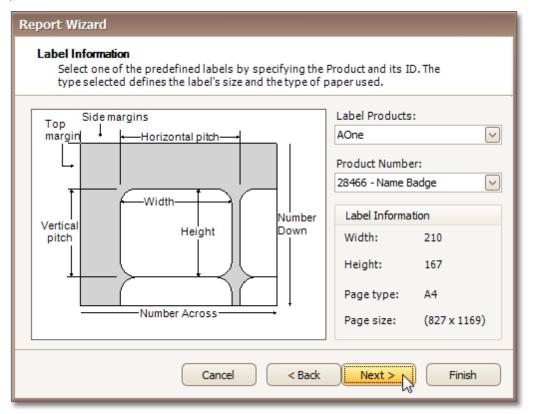
# Step 1 - Select a Label Type

## Purpose

When you need to print out stickers or, say, water-proof labels, you need to purchase the appropriate paper. Every supplier will provide it's own specific label size or label position within a paper sheet. To make it easier for you to produce labels, this wizard step lists several label paper suppliers and their products. Once you've selected a supplier and a product (paper and label type), the report will change its settings so that your labels will be printed exactly where they're supposed to, without you having to adjust the label position and size manually.

#### Page Interface

On this page, choose the supplier from the **Label Products** combo box and a particular product from the **Product Number** list. The box on the left-hand side will be updated to show you label dimensions for the currently selected product.



If you don't need further customization, click **Finish** to complete the report adjustment. If manual correction of label or paper size is required, click **Next**.

# **Step 2 - Customize Label Options**

## Purpose

On this page, you can manually adjust settings that were automatically specified in the previous step, based on your supplier and product choice.

#### Page Interface

Editors on this page allow free customization of all parameters specified on the previous page. The pane on the left-hand side provides a label dimensions preview based on current values.

Report Wizard				
Customize the Label's Options You can adjust the label's parameters here if required.				
Top     Side margins       margin     + Horizontal pitch+       Vertical     Width+       pitch     Height       Number Across     Number Across	Label Width: Label Height: Vertical Pitch: Horizontal Pitch: Top Margin: Side Margin:	210 v 167 v 167 v 225 v 85 v 75 v		
Page Size: A4 (827 x 1169)				
Cancel < Back Next > Finish				

Click Finish to complete report setup.