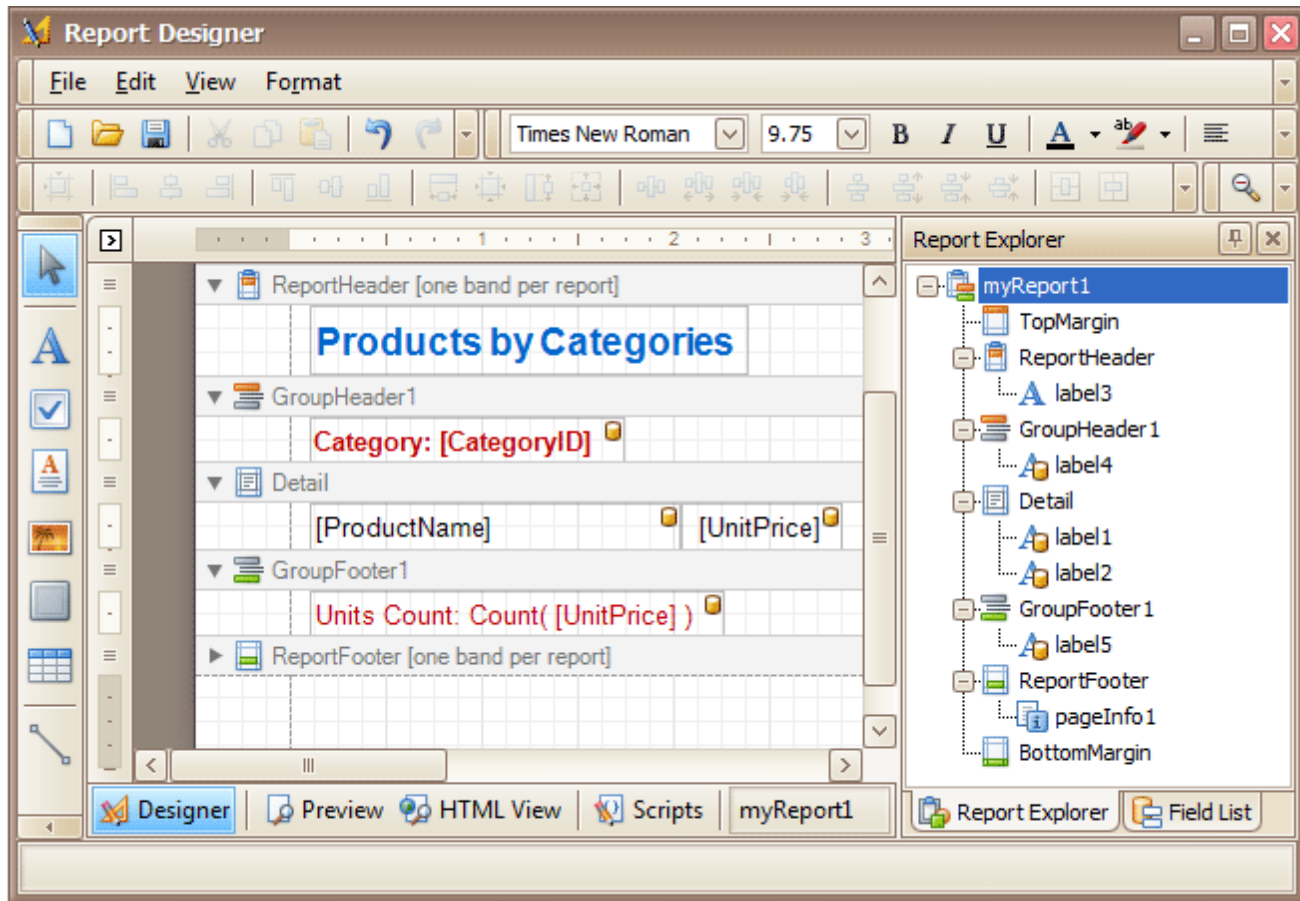


Report Designer

[Interface Element List for Windows Forms](#) > [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.

- [Report Editing Basics](#)
- [Create Reports](#)
- [Report Designer Reference](#)
- [Report Wizard](#)
- [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

[Interface Element List for Windows Forms](#) > [Report Designer](#) > [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](#)
- [Manually Update Report Output](#)
- [Change the Layout of Report Elements](#)
- [Change Fonts and Colors of Report Elements](#)
- [Delete Report Elements](#)

Providing Data

- [Add or Modify Static Information in Your Report](#)
- [Displaying Values from a Database \(Binding Report Elements to Data\)](#)
- [Use Mail Merge in Report Elements](#)
- [Add Calculated Fields to a Report](#)
- [Add Parameters to a Report](#)

Data Representation

- [Change Value Formatting of Report Elements](#)
- [Change or Apply Data Sorting to a Report](#)
- [Change or Apply Data Filtering to a Report](#)
- [Change or Apply Data Grouping to a Report](#)

Additional Features

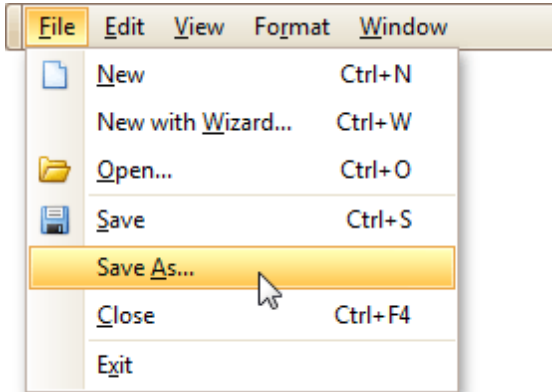
- [Add Totals to a Report](#)
- [Add Page Numbers and System Information to a Report](#)
- [Create or Modify Watermarks of a Report](#)

Back Up the Current Layout Before Modifying It

[Interface Element List for Windows Forms](#) > [Report Designer](#) > [Report Editing Basics](#) > [Back Up the Current Layout Before Modifying It](#)

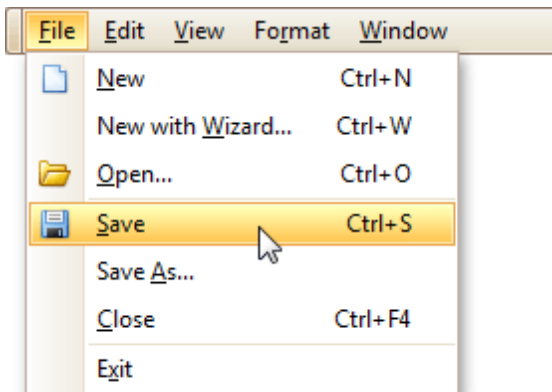
To guarantee that you will be able to revert your report to its original state, you need to create a *backup copy*. Then, you can apply changes without worrying that it will be hard to restore your report, in case something breaks.

- To save a copy of your report, in the [Main Menu](#), select **File | Save As**.

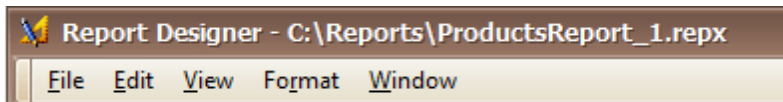


Then, in the invoked standard **Save File** dialog, specify the folder and file name.

- 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

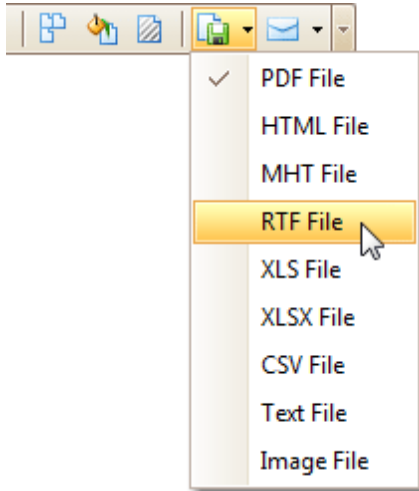
[Change the Layout of Report Elements](#)
[Delete Report Elements](#)

Manually Update Report Output

[Interface Element List for Windows Forms](#) > [Report Designer](#) > [Report Editing Basics](#) > [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 .



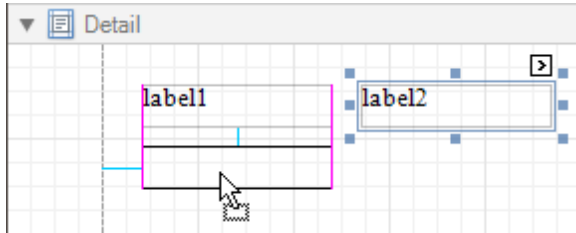
To learn more about report exporting, see [Exporting from Print Preview](#).

Change the Layout of Report Elements

[Interface Element List for Windows Forms](#) > [Report Designer](#) > [Report Editing Basics](#) > [Change the Layout of Report Elements](#)

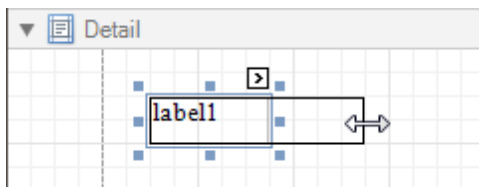
To select a [control](#), click it. To select the next control in tab order, press TAB. To select the previous control in tab order, click SHIFT + TAB.

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

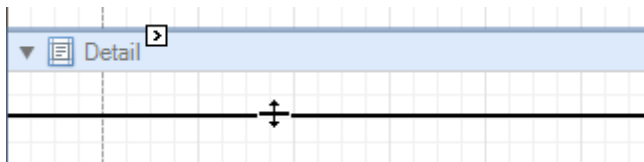


They can be precisely aligned to each other using either *Snap Grid* or *Snap Lines*. For details on this, refer to [Controls Positioning](#).

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



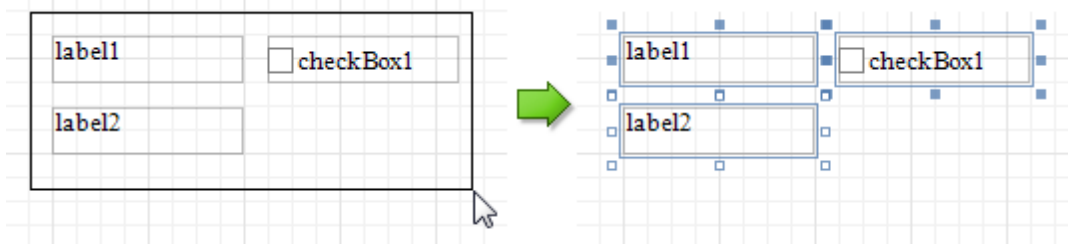
To resize a [band](#), drag its header strip.



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

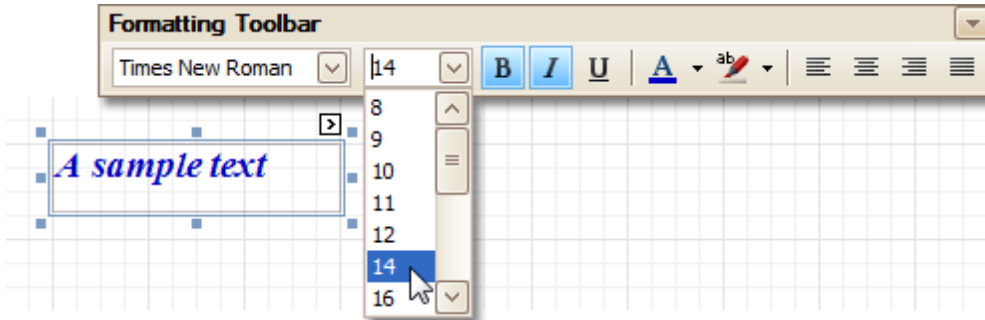
[Change Fonts and Colors of Report Elements](#)
[Delete Report Elements](#)

Change Fonts and Colors of Report Elements

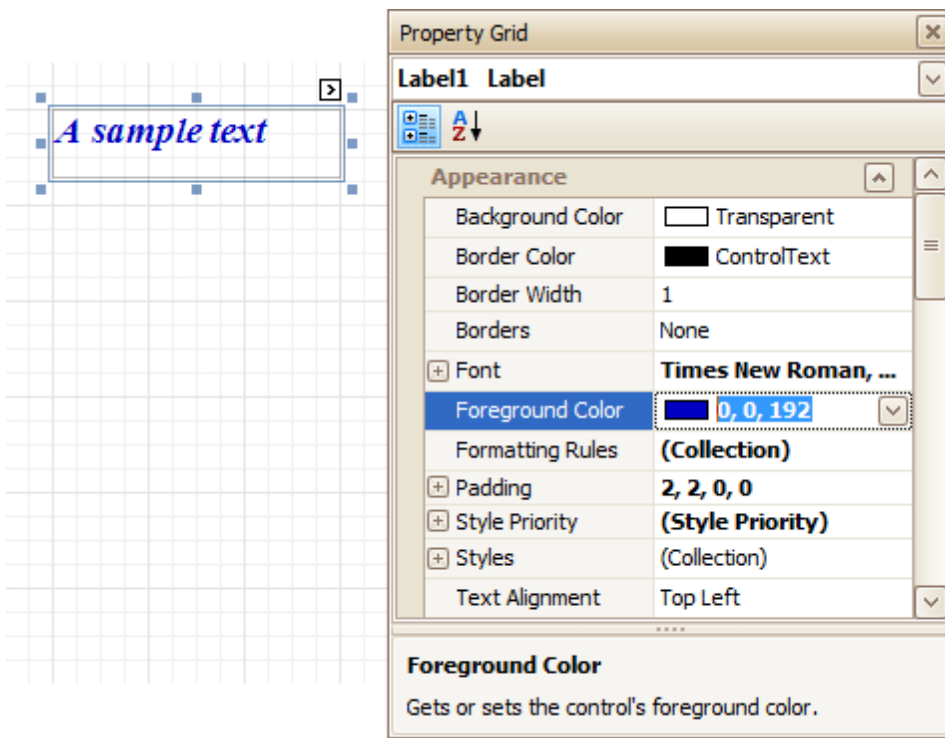
[Interface Element List for Windows Forms](#) > [Report Designer](#) > [Report Editing Basics](#) > [Change Fonts and Colors of Report Elements](#)

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

- Use the [Formatting Toolbar](#).



- Use the [Property Grid](#), where all appearance-related properties are located under the **Appearance** category.



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

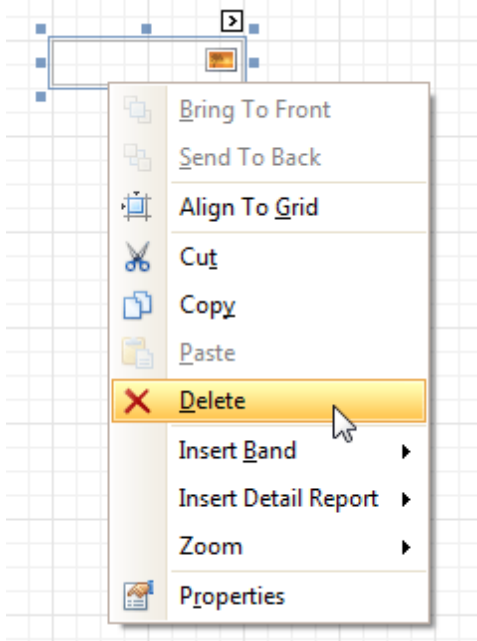
When it's required to apply styles in bulk, we recommend using common *style templates*, which also can be stored in an external style sheet file, and applied to multiple reports. In addition, this allows you specify separate *odd/even styles*, to improve your reports' readability. Another noteworthy 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 [Styles and Conditional Formatting in Reports](#).

Delete Report Elements

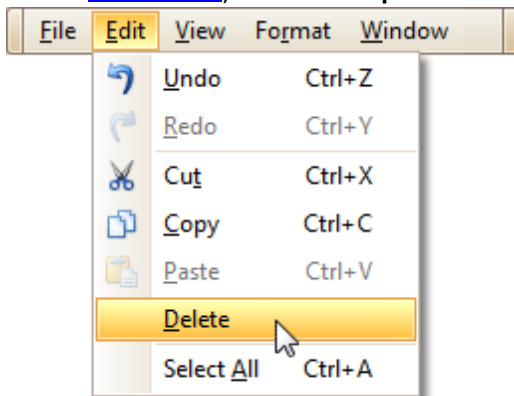
[Interface Element List for Windows Forms](#) > [Report Designer](#) > [Report Editing Basics](#) > [Delete Report Elements](#)

To delete a report element ([band](#) or [control](#)), select it in the [Design Panel](#) or [Report Explorer](#) (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 [Context Menu](#), choose **Delete**.



- In the [Main Menu](#), select **Edit | Delete**.



Note

You can cancel the operation by pressing CTRL+Z.

Note that certain elements cannot be deleted (such as the [Detail band](#)).

See Also

[Change the Layout of Report Elements](#)

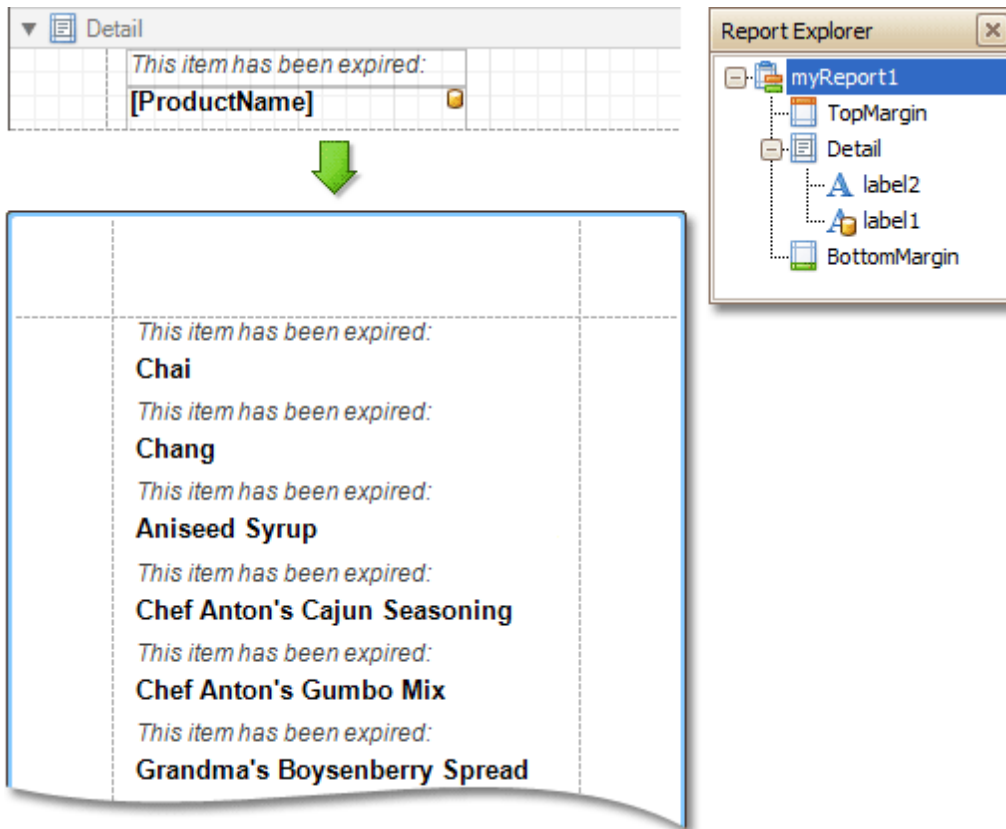
Add or Modify Static Information in Your Report

[Interface Element List for Windows Forms](#) > [Report Designer](#) > [Report Editing Basics](#) > [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 [values from a database](#) (which comprise the main report data) or [service information](#) (such as [current user name or page numbers](#)). Approaches to embed dynamic information to your report are detailed in the following document: [Displaying Values from a Database \(Binding Report Elements to Data\)](#).

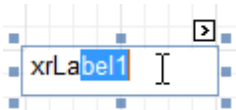
Static information is text or images that aren't obtained from a data source, and therefore don't change through the report, and don't depend on the current computer. Static information can be printed only once (e.g. in a [Report Header](#)), can repeat on each page (e.g. in a [Page Header](#)) or can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



Static information can be either [edited in-place](#), or [loaded from an external file](#).

Change Static Information

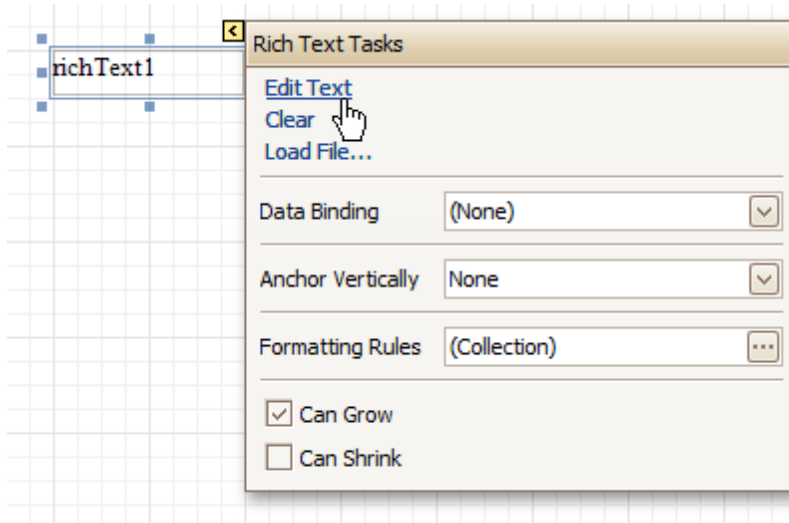
Text elements (e.g. [Labels](#) and [Rich Text Boxes](#)) allow in-place editing of their content. Simply double-click an element and activate the editor.



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 [Smart Tag](#). Then, the invoked actions list will contain a link (or, a button) allowing you to edit this control's content.

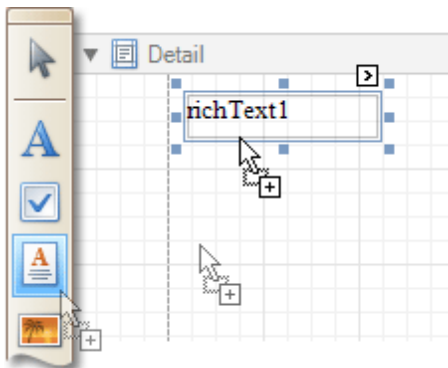


Load Static Information to Your Report

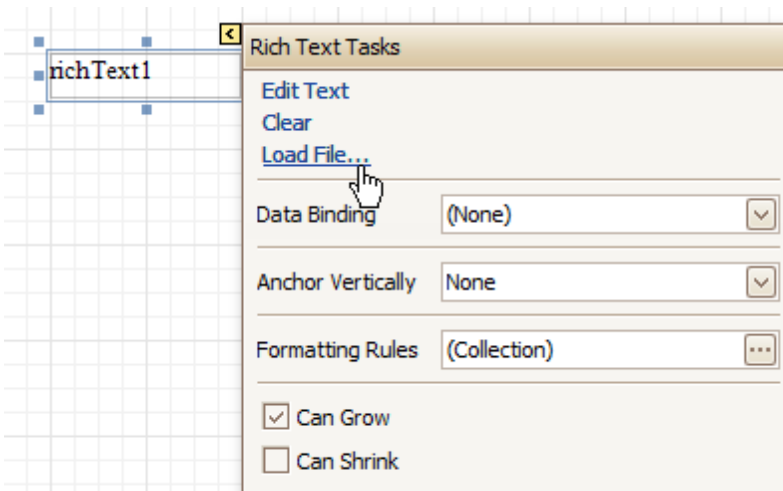
To load static information to your report from an external file, drop an appropriate control from the [Control Toolbox](#) (e.g. [Label](#), [Rich Text Box](#) or [Picture Box](#)). After it is properly [positioned](#), edit its content using the [Smart Tag](#).

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

1. Drop the [Rich Text](#) control from the [Toolbox](#) onto the [Detail band](#).



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.



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

See Also

[Change Fonts and Colors of Report Elements](#)

[Displaying Values from a Database \(Binding Report Elements to Data\)](#)

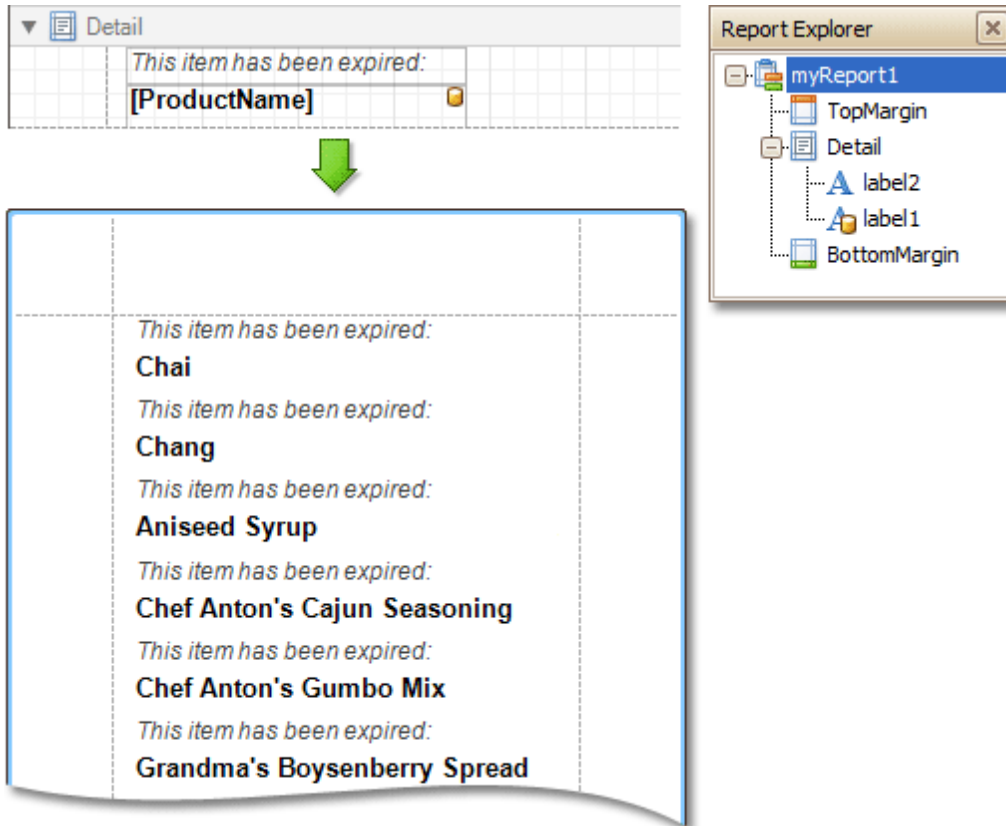
[Use Mail Merge in Report Elements](#)

Displaying Values from a Database (Binding Report Elements to Data)

[Interface Element List for Windows Forms](#) > [Report Designer](#) > [Report Editing Basics](#) > [Displaying Values from a Database \(Binding Report Elements to Data\)](#)

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 [Design Panel](#) and [Report Explorer](#).



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.

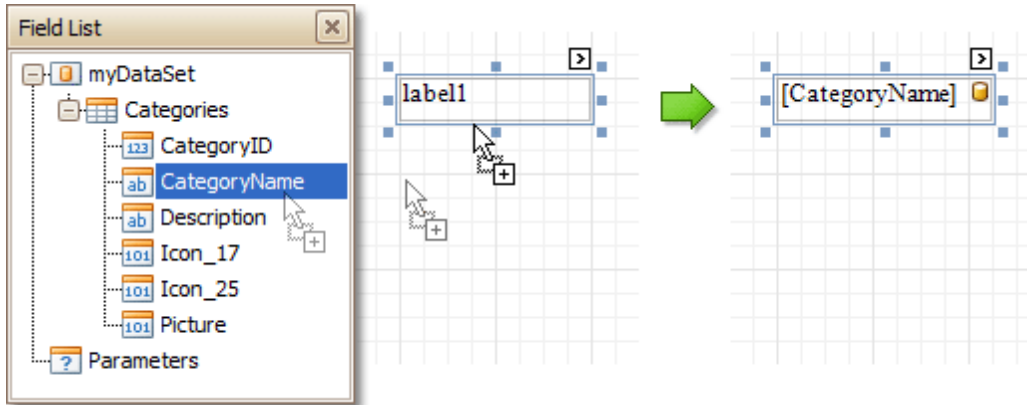
- [Using the Field List](#)
- [Using the Smart Tag](#)
- [Using the Property Grid](#)

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

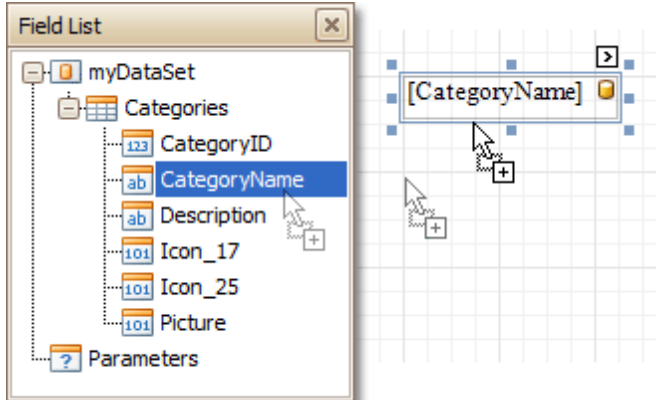
- [Special Capabilities](#)

Using the Field List

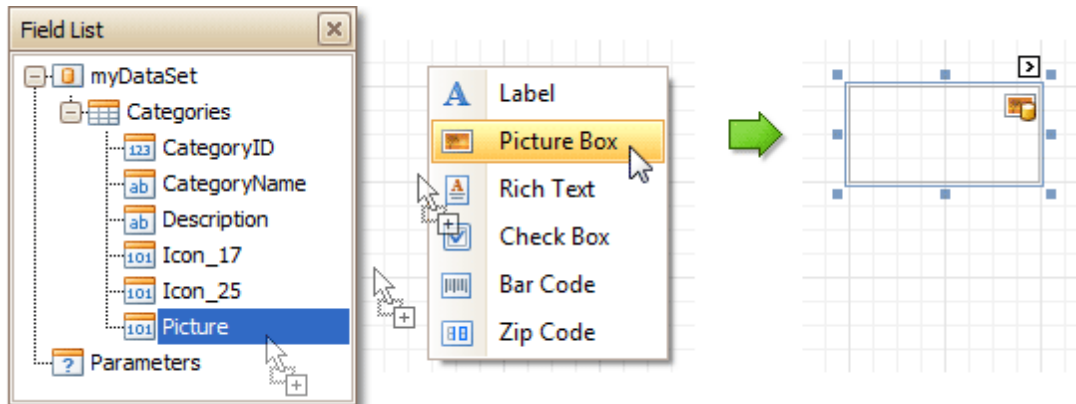
- To bind an existing report control to a data field, click the required field item in the [Field List](#), and then drag and drop it onto the control. The yellow database icon inside it will indicate that it's been successfully bound.



- 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 [Label](#) bound to this data field.

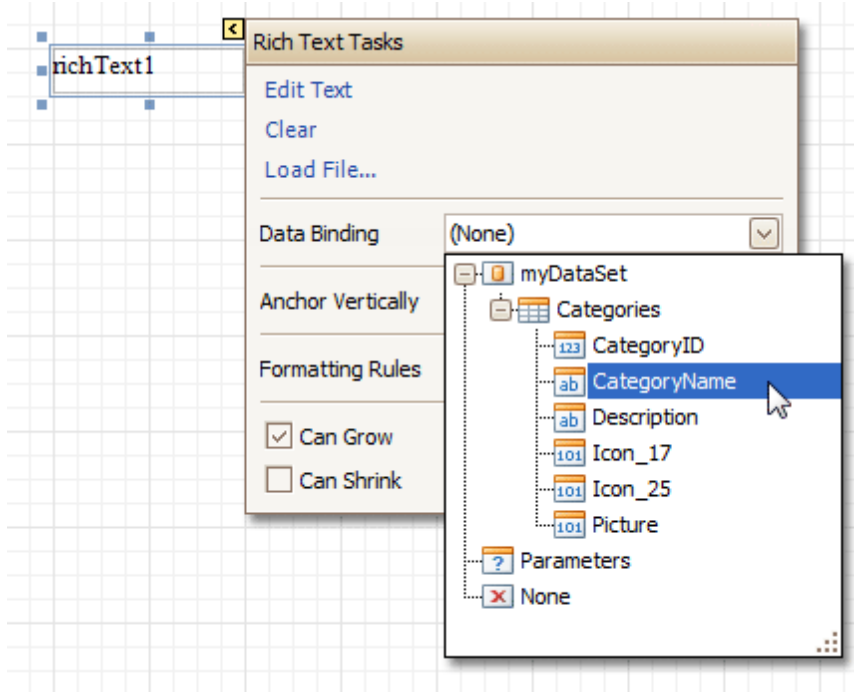


- A more flexible way to create data-bound elements is to right-click a Field List item, and then drag and drop it onto a report. This will invoke the [Context Menu](#), where you can choose which control should represent your data, and it will be automatically created and bound to the selected data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



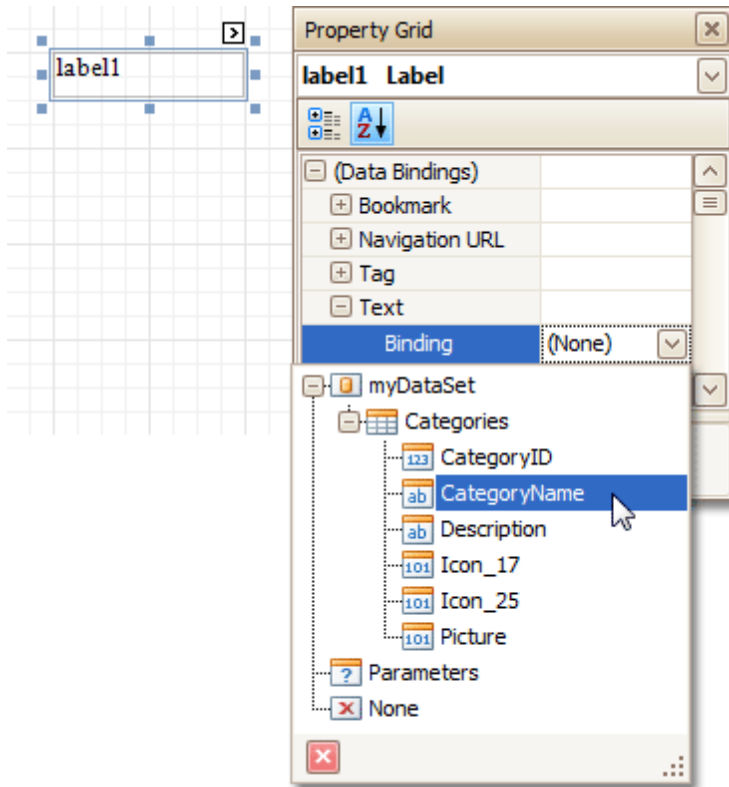
Using the Smart Tag

Click a control's [Smart Tag](#), 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 [Property Grid](#), 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 [Change Value Formatting of Report Elements](#).

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 [Add Totals to a Report](#).

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 [Use Mail Merge in Report Elements](#).

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 [Add Calculated Fields to a Report](#).

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 [Add Parameters to a Report](#).

Use Mail Merge in Report Elements

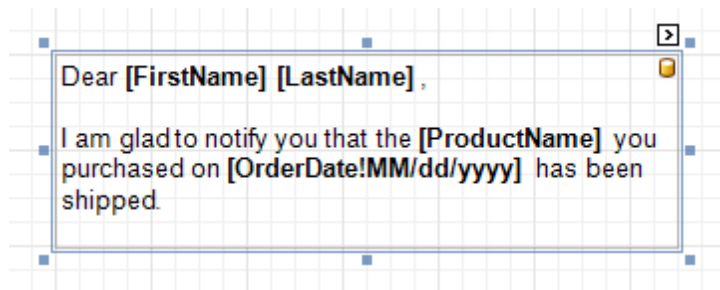
[Interface Element List for Windows Forms](#) > [Report Designer](#) > [Report Editing Basics](#) > [Use Mail Merge in Report Elements](#)

The *mail merge* feature allows you 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.

Mail merge is available for the following controls.

- [Bar Code](#)
- [Check Box](#)
- [Label](#)
- [Rich Text](#)
- [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 [Change Value Formatting of Report Elements](#).

Add Calculated Fields to a Report

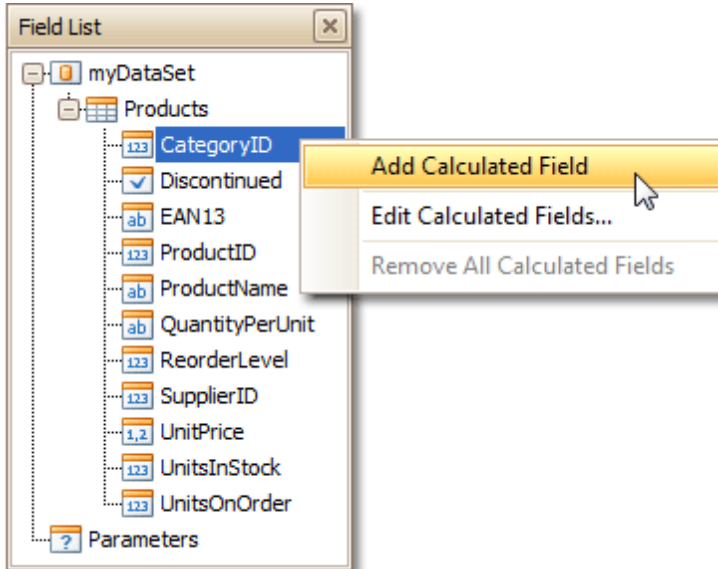
[Interface Element List for Windows Forms](#) > [Report Designer](#) > [Report Editing Basics](#) > [Add Calculated Fields to a Report](#)

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 [data fields](#). To learn how to easily perform simple calculations within a single data field, refer to [Add Totals to a Report](#).

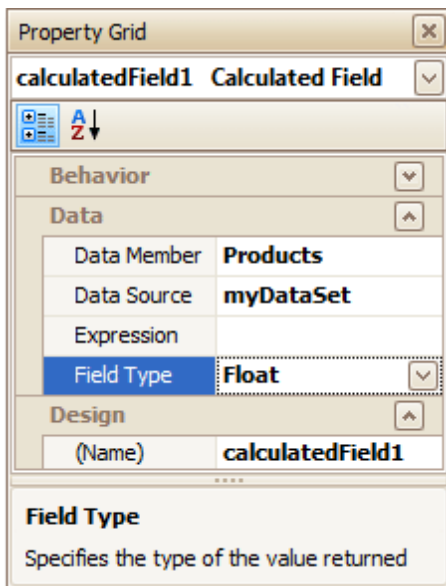
In the Report Designer, a calculated field is similar to an ordinary data field (e.g. you can bind controls to it, and [group](#), [sort](#) and [filter](#) your report against it).

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

1. To create a calculated field, in the [Field List](#), right-click any data member, and on the invoked menu, choose **Add Calculated Field**.

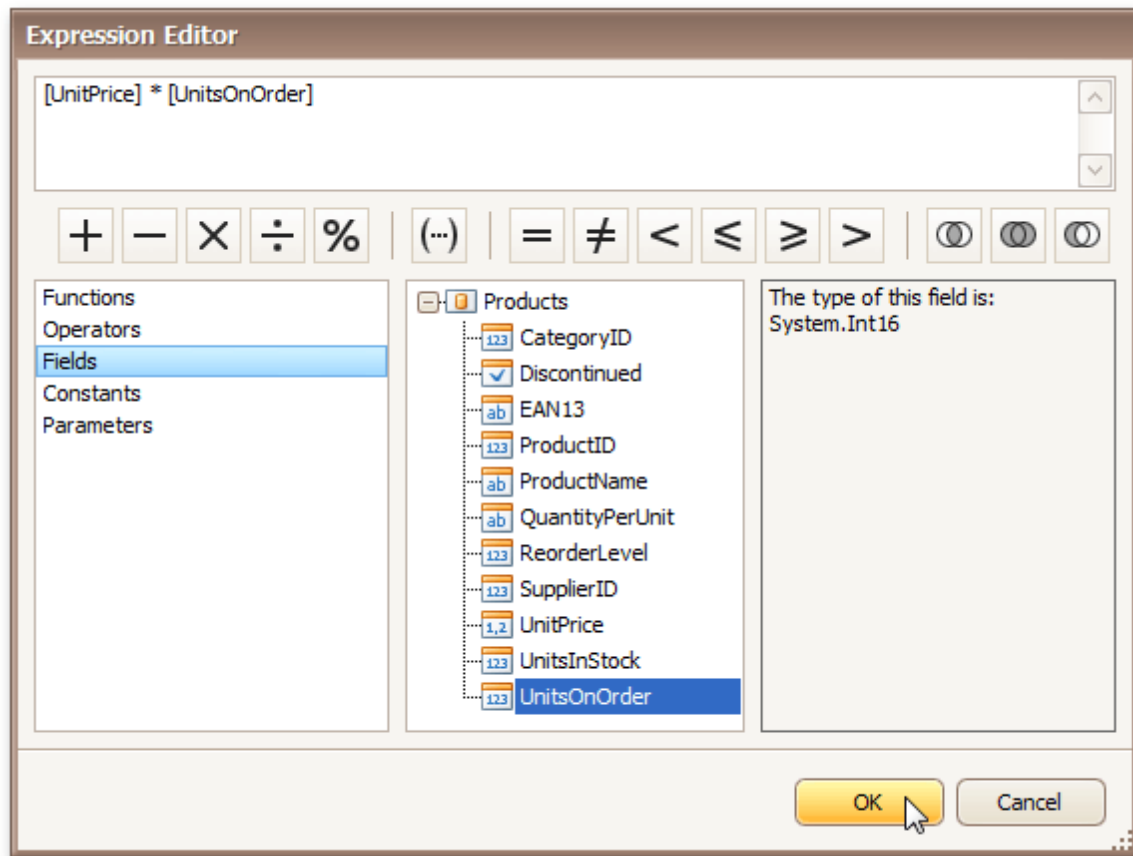


2. In the Field List, select the created field to show its properties in the [Property Grid](#). Among these options, make sure to change the **Field Type** property to an appropriate value.



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...**



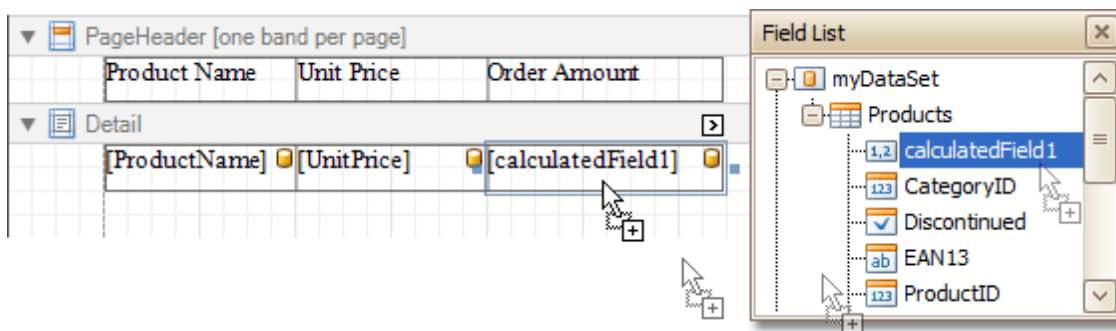
Click **Fields** to see the field list. Double-click field names to add them to the expression string. Use the toolbar to add operators between field names.

Note

Note that it's also possible to employ [parameters](#) 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 [band](#), just like an ordinary data field.



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
Ipoh 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

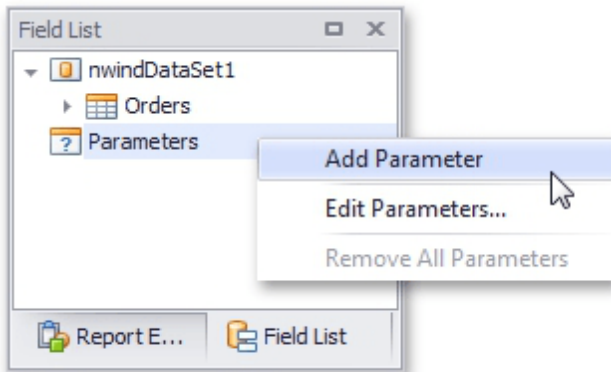
[Interface Element List for Windows Forms](#) > [Report Designer](#) > [Report Editing Basics](#) > [Add Parameters to a Report](#)

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 be [filtered](#). It is also possible to employ parameters in expressions of [calculated fields](#).

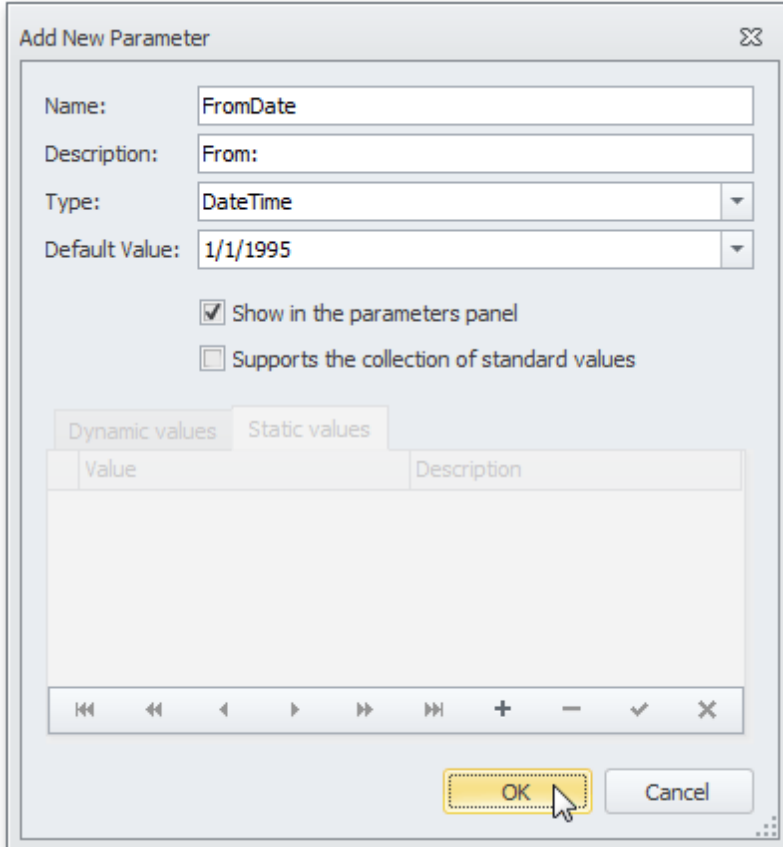
In this example, we'll create two date-time parameters, to filter out orders which don't fall in the specified range, from the report.

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**.



2. In the invoked window for the created parameter, set its **Name** and **Description**. And, make sure to set its **Type** to an appropriate value.



Note

In Print Preview, the report's document is not generated until you have submitted values of all the parameters that have the **Show in the parameters panel** option switched on via the **Parameters** UI.

- Enabling the **Supports the collection of standard values** option of the parameter allows end-users to modify its value and also activates the **Dynamic values** and the **Static values** tabs of the window:
 - On the **Dynamic values** tab, you can specify a parameter's data source, data adapter and data member. The value member defines a data field that provides values to the parameter. The display member defines a data field that provides display names for parameter values (how these values appear in the user interface available in a Print Preview).
 - On the **Static values** tab, you can manually fill the list of parameter values, with each value having an individual description (specifying how this value appears in the **Parameters** panel).

Add New Parameter

Name:

Description:

Type:

Default Value:

Show in the parameters panel

Supports the collection of standard values

Dynamic values | Static values

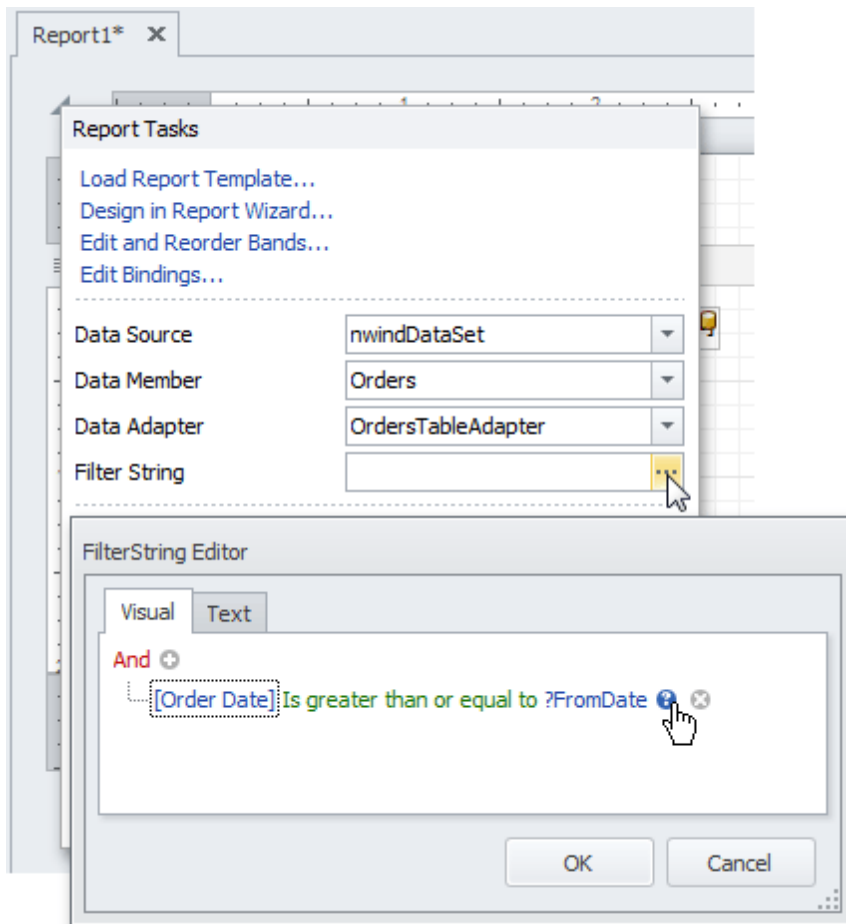
Value	Description
1/1/1995	January 1, 1995
4/1/1995	April 1, 1995
8/1/1995	August 1, 1995

OK Cancel

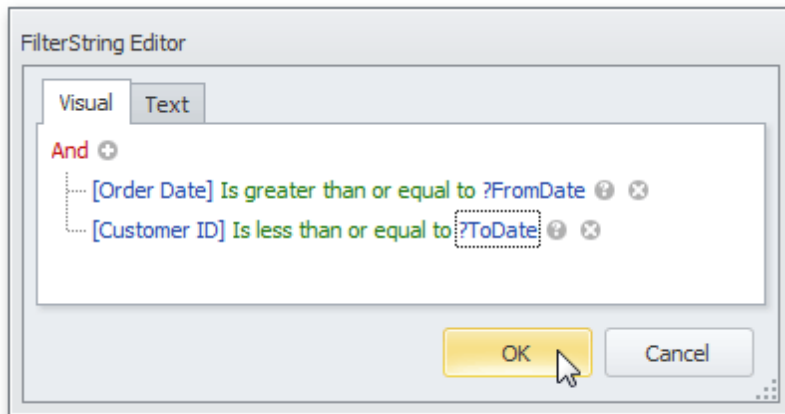
Then, repeat the previous steps to create the second parameter, so that every time your report is previewed, you will be asked to specify two dates.

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

- Click your report's [Smart Tag](#), 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.



The complete filtering expression will then look like this.



The parameterized report is now ready. Switch to the [Preview Tab](#), and in the **Parameters** section, define the required values and click **Submit**.

The screenshot shows the Report Designer interface. The 'Parameters' pane on the left has 'From: April 1, 1995' and 'To: 12/31/1995'. A calendar dropdown is open, showing 'December, 1995' with the 31st selected. The main report area displays a table with the following data:

Date	Value	Country	Price
3/1995	10462	UK	\$6.17
4/1995	10463	Belgium	\$14.78
4/1995	10464	Portugal	\$89.00
5/1995	10465	Denmark	\$145.04
6/1995	10466	Brazil	\$11.93
6/1995	10467	Italy	\$4.93
4/7/1995	10468	Germany	\$44.12
4/10/1995	10469	USA	\$60.18

The bottom status bar shows 'Designer', 'Preview', 'HTML View', 'Scripts', 'Page 1 of 10', and a zoom level of '100%'.

See Also

[Add Calculated Fields to a Report](#)

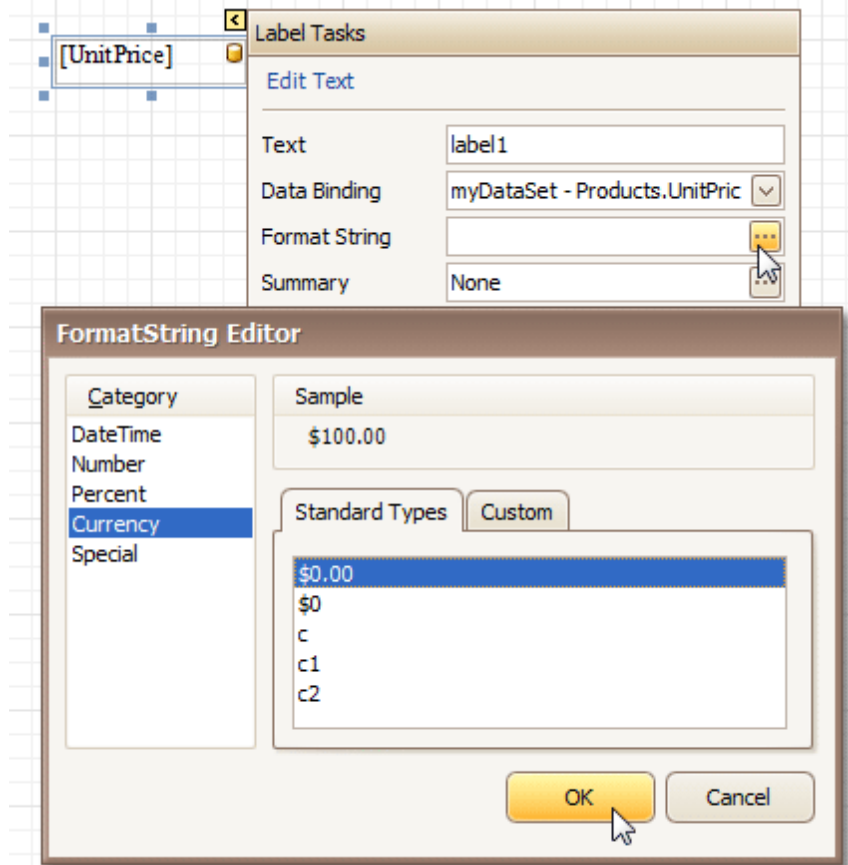
[Change or Apply Data Filtering to a Report](#)

Change Value Formatting of Report Elements

[Interface Element List for Windows Forms](#) > [Report Designer](#) > [Report Editing Basics](#) > [Change Value Formatting of Report Elements](#)

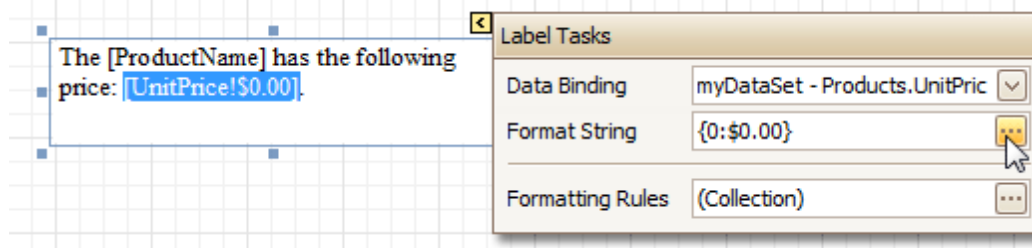
To apply value formatting for a [data-bound control](#)'s content (e.g. for it to be treated as currency, or date-time content), locate this control, click its [Smart Tag](#), and in the invoked actions list, click the ellipsis button for the **Format String** entry.

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



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

Similarly, when the [mail-merge](#) 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.



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 [Add Totals to a Report](#).

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 [exported](#) to XLSX. This can be done via a control's **Xlsx Format String** property.

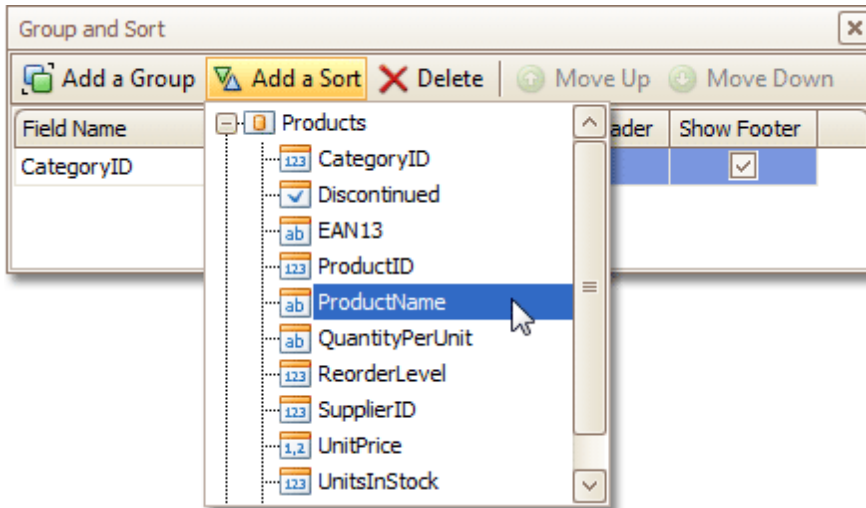
Change or Apply Data Sorting to a Report

[Interface Element List for Windows Forms](#) > [Report Designer](#) > [Report Editing Basics](#) > [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 [bound to a data source](#). In this example, we'll use the report created in the following tutorial: [Change or Apply Data Grouping to a Report](#).

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

1. Switch to the [Group and Sort Panel](#), 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 [calculated fields](#) 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

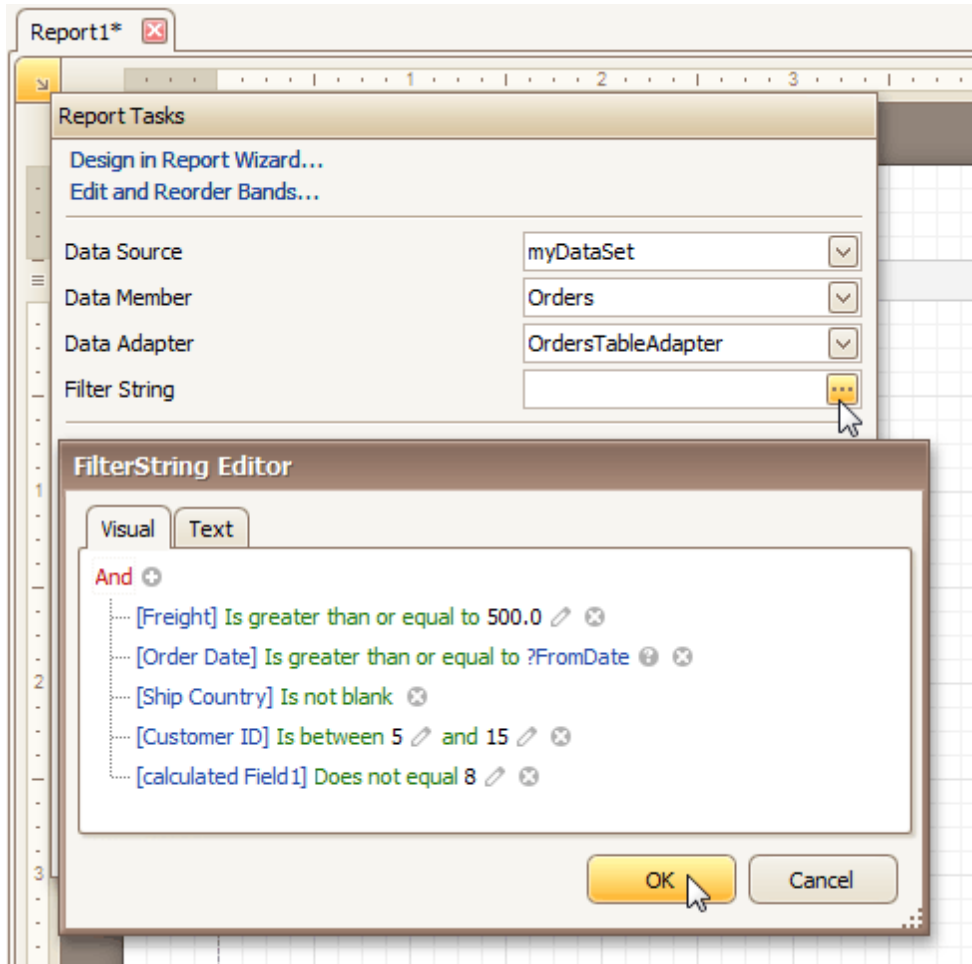
See Also[Change or Apply Data Grouping to a Report](#)[Change or Apply Data Filtering to a Report](#)[Add Calculated Fields to a Report](#)[Sort Groups by a Summary Function Result](#)

Change or Apply Data Filtering to a Report

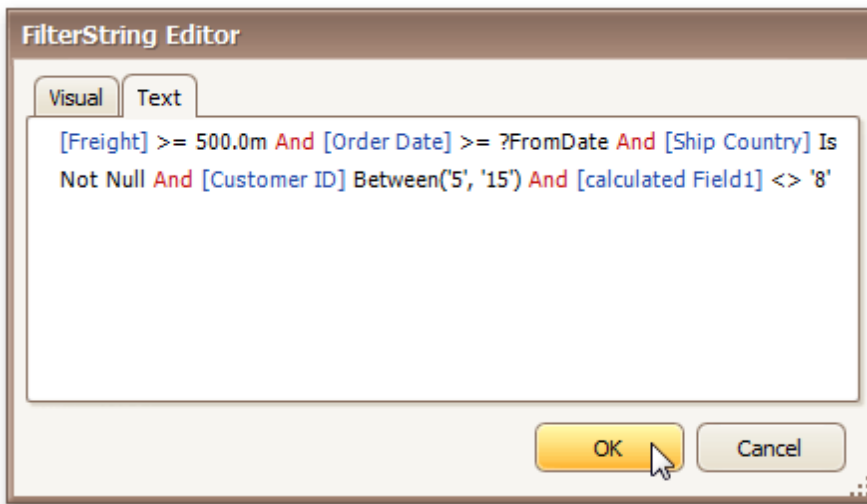
[Interface Element List for Windows Forms](#) > [Report Designer](#) > [Report Editing Basics](#) > [Change or Apply Data Filtering to a Report](#)

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 [Smart Tag](#), 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.



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



Note that it is possible to embed [parameters](#) into the expression, and also request them each time a report is previewed.

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

See Also

[Change or Apply Data Grouping to a Report](#)
[Change or Apply Data Sorting to a Report](#)

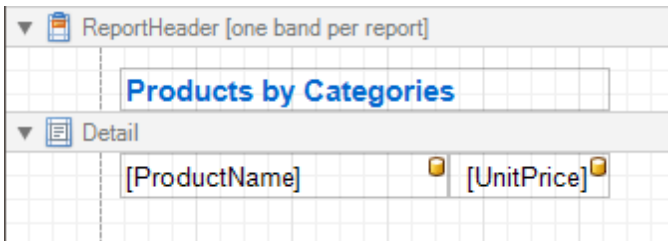
Change or Apply Data Grouping to a Report

[Interface Element List for Windows Forms](#) > [Report Designer](#) > [Report Editing Basics](#) > [Change or Apply Data Grouping to a Report](#)

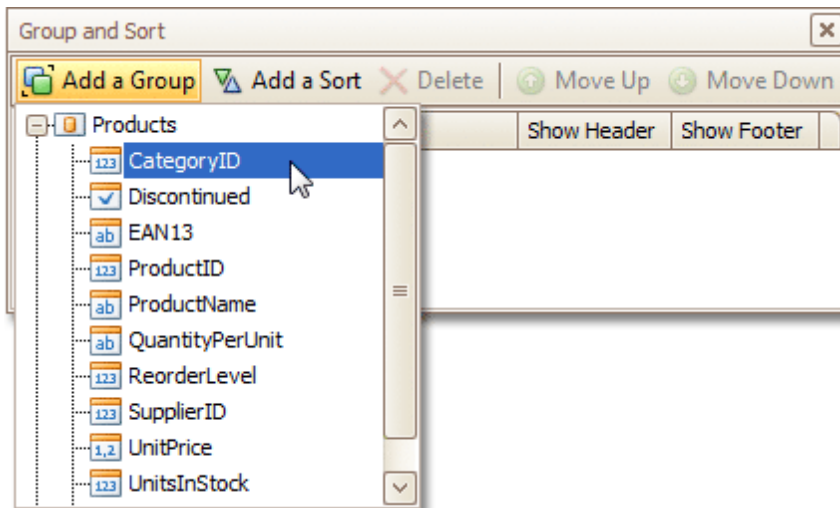
This document demonstrates how to group a report's data. Note that data grouping can be performed only if a report is [bound to a data source](#).

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.



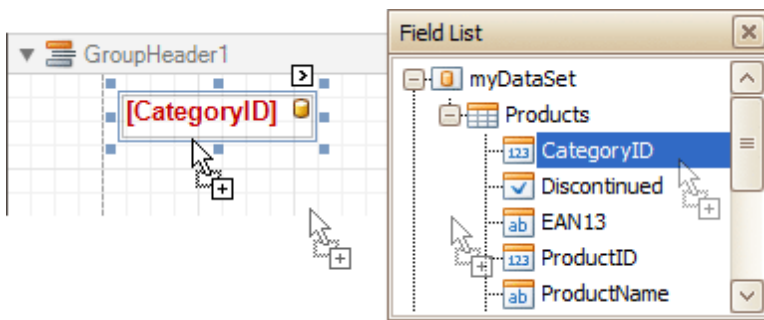
2. Now, switch to the [Group and Sort Panel](#), and click **Add a Group**. In the invoked list, choose a data member across which the report is to be grouped. Note that grouping across [calculated fields](#) is supported, as well.



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.

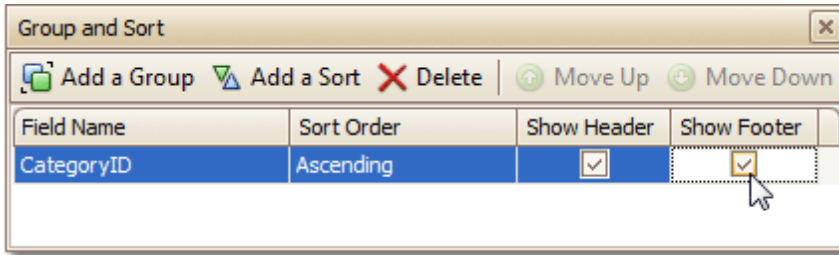
3. After this, a [Group Header](#) band is added to the report, with the specified data member being set as its grouping criterion.

Now, it's only left to drop the corresponding item from the [Field List](#) onto this band, so that it's displayed as a header for each group.



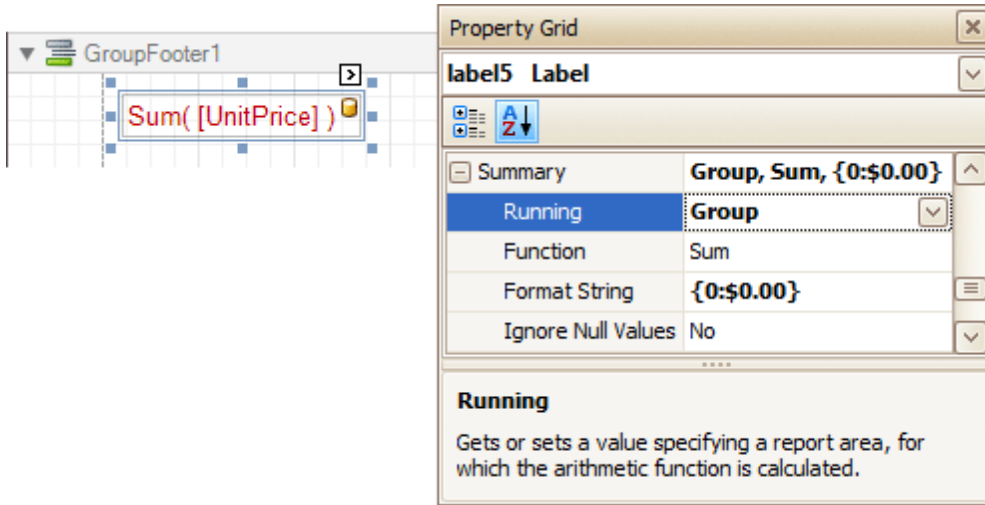
If required, you also can apply [mail merge](#) to this label.

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



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

5. Then, you can [calculate a total](#) across the group, by placing a [Label](#) onto this band, and specifying its **Summary** properties in the following way.



Note also that *value formatting* is applied to a summary independently of the [general formatting](#), and has a greater priority.

The report is now ready. Switch to the [Preview Tab](#), 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 [Sort Groups by a Summary Function Result](#).

To learn how page numbers can be added to groups independently from the report's page numbers, refer to [Add Page Numbers for Groups](#).

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](#)

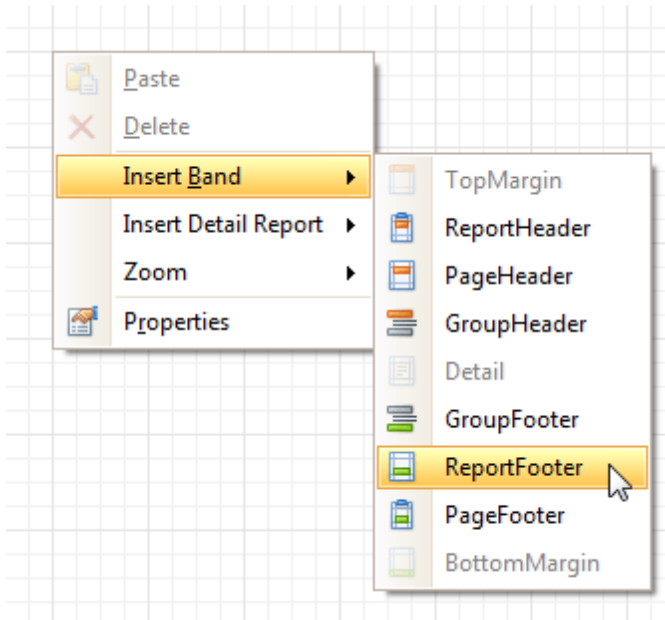
Add Totals to a Report

[Interface Element List for Windows Forms](#) > [Report Designer](#) > [Report Editing Basics](#) > [Add Totals to a Report](#)

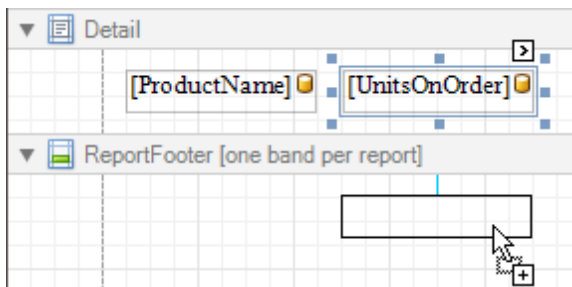
With Report Designer, you can force a [data-bound control](#) to calculate one of the standard summary functions (**Average, Summary, Count, Running Summary, Percentage, Max** or **Min**).

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

1. To display the result at the bottom of a report, the [Report Footer](#) band should be present. To add it, right-click anywhere over the report's area and in the invoked [Context Menu](#), 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 [Label](#) that will display the summary.

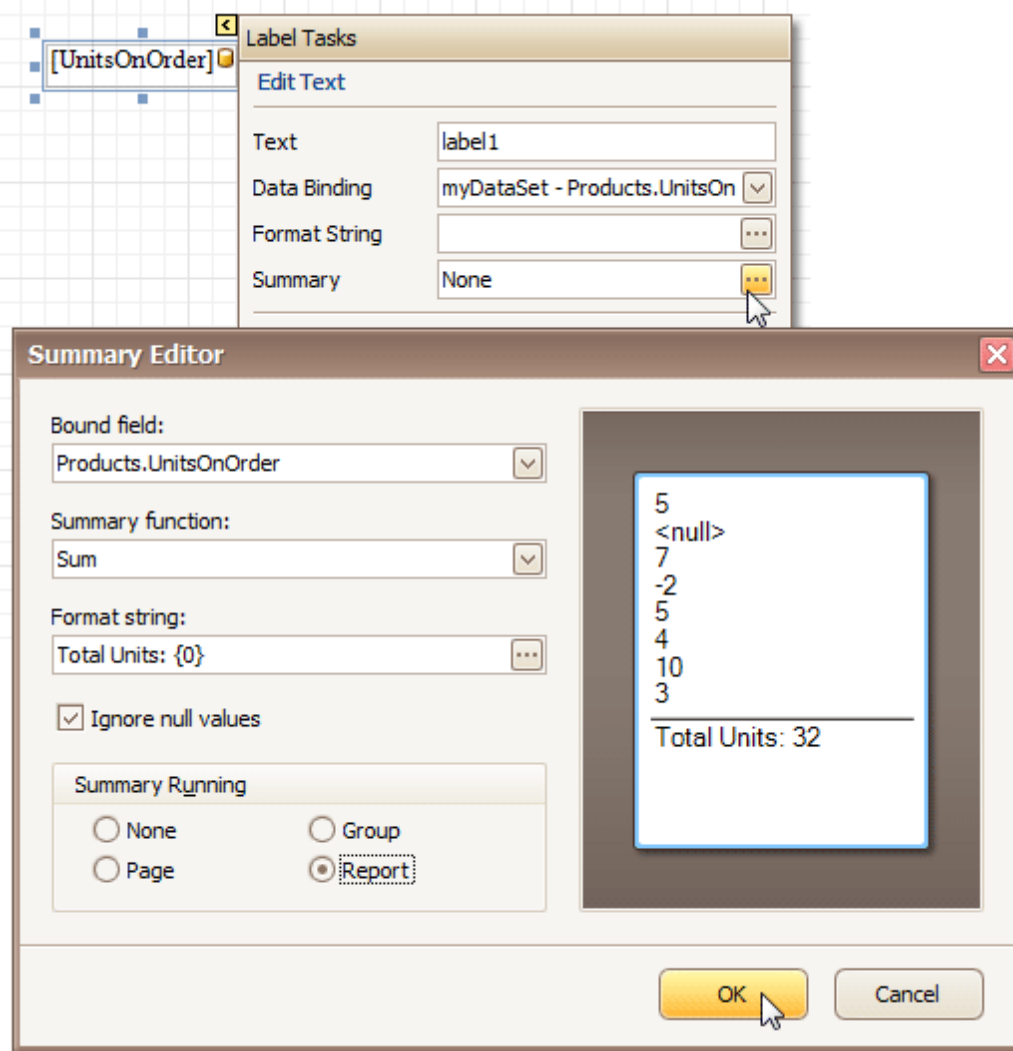


Note

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 [Smart Tag](#), 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.



Note

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 [general formatting](#), and has a greater priority.

When calculating totals for [groups](#), you can [sort the groups against a summary function result](#).

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

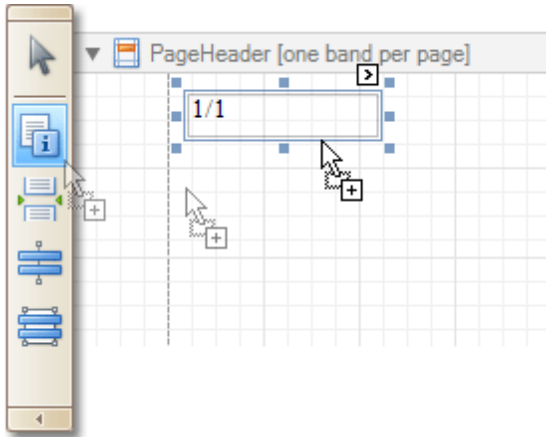
[Sort Groups by a Summary Function Result](#)
[Calculate an Aggregate Function](#)
[Add Calculated Fields to a Report](#)

Add Page Numbers and System Information to a Report

[Interface Element List for Windows Forms](#) > [Report Designer](#) > [Report Editing Basics](#) > [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 [Page Header and Footer](#) or [Page Margin](#) bands. To add page numbers or system information to a report, locate the [Control Toolbox](#) and drag and drop the [Page Info](#) control.

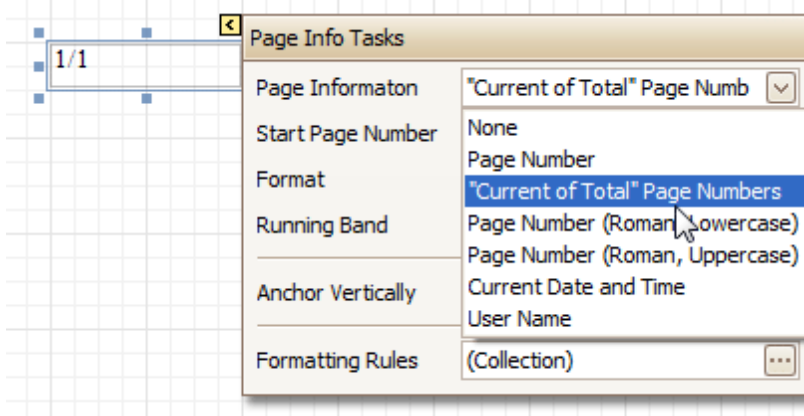


Then, follow the instructions below for your specific task.

- [Add Page Numbers](#)
- [Add System Date and Time](#)
- [Add the User Name](#)

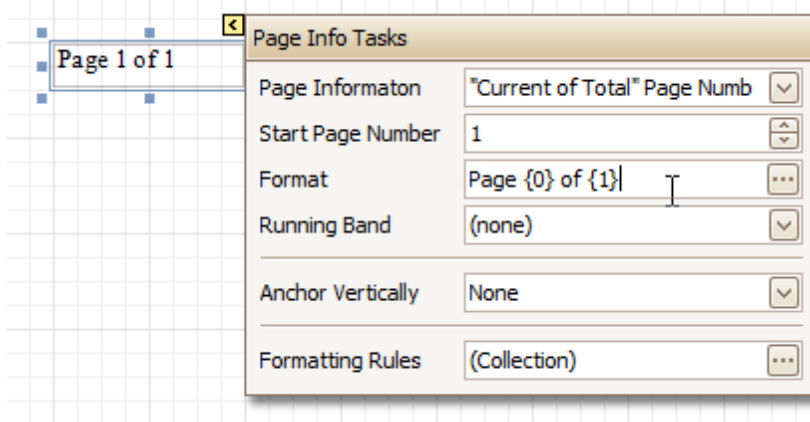
Add Page Numbers

1. Select the **Page Info** control, click its [Smart Tag](#), and in the invoked actions list, expand the drop-down list for the **Page Information** entry.



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

2. To [format](#) the control's text, via its Smart Tag, invoked its actions list, and specify the required format (e.g. **Page {0} of {1}**).



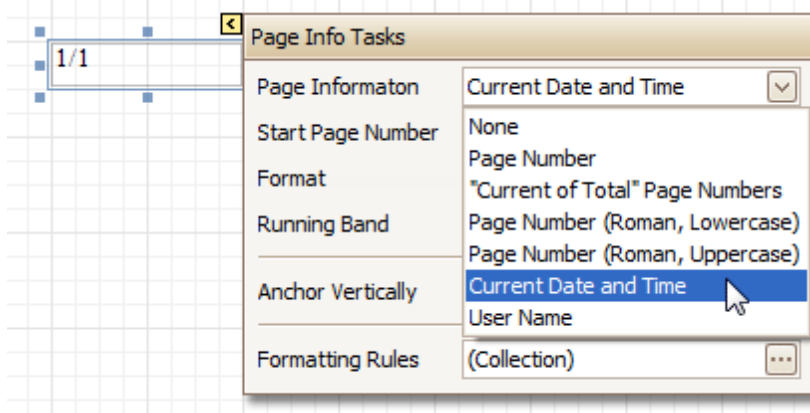
3. Using the control's actions list, you also can specify the *starting page number*, and the *running band* (e.g. this option is available when there are [groups](#) in a report, and it's required to apply independent page numbering for them). For details on this, refer to [Add Page Numbers for Groups](#).

The result is shown below.

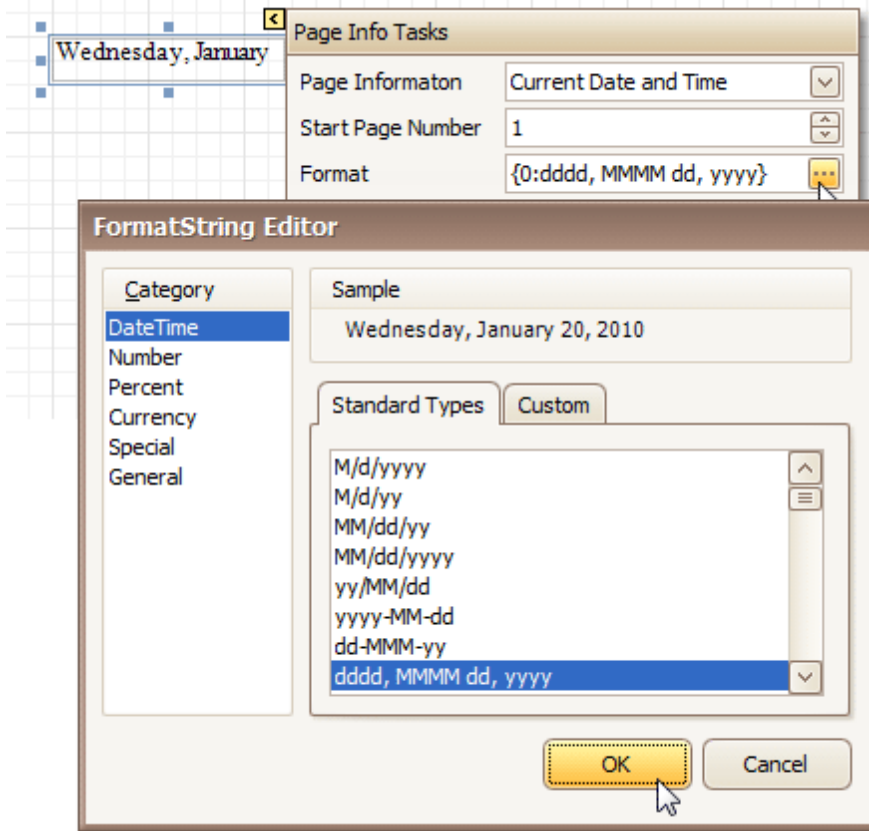
Page 1 of 2	
Chai	\$18.00
Chang	\$19.00
Aniseed Syrup	\$10.00
Chef Anton's Cajun Seasoning	\$22.00
Chef Anton's Gumbo Mix	\$21.35
Grandma's Boysenberry Spread	\$25.00
Uncle Bob's Organic Dried Pears	\$30.00
Northwoods Cranberry Sauce	\$40.00
Mishi Kobe Niku	\$97.00

Add System Date and Time

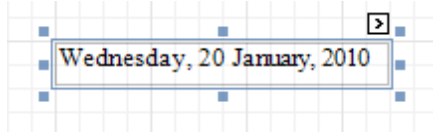
1. Select the **Page Info** control, click its [Smart Tag](#), and in the invoked actions list, expand the drop-down list for the **Page Information** entry, and select **Current Date and Time**.



- To [format](#) 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**.

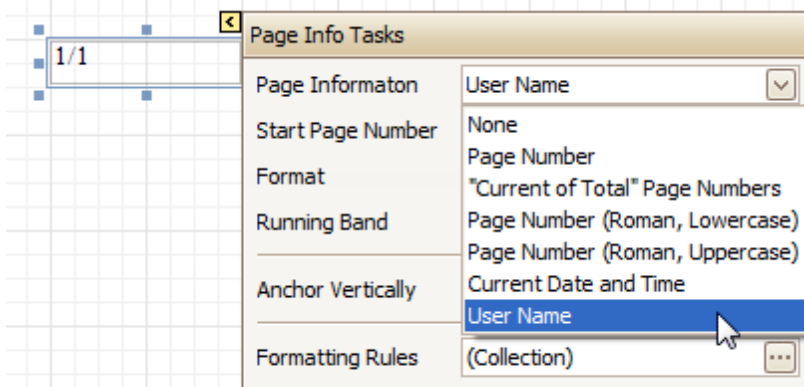


The result is shown below.

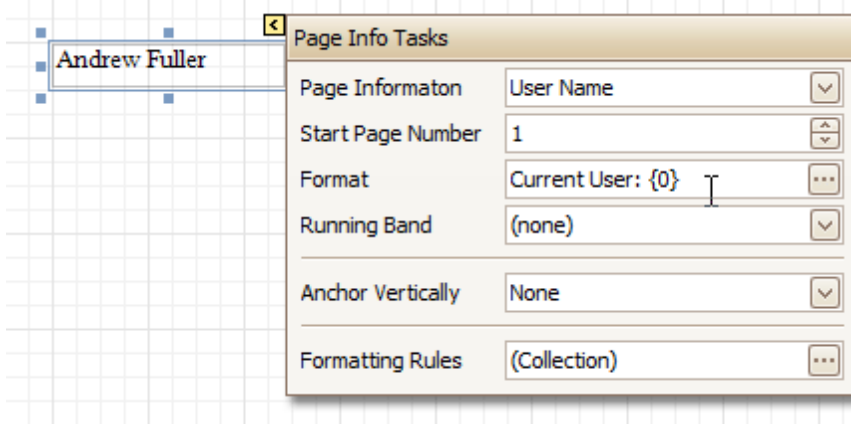


Add the User Name

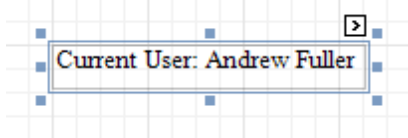
- Select the **Page Info** control, click its [Smart Tag](#), and in the invoked actions list, expand the drop-down list for the **Page Information** entry, and select **User Name**.



- To [format](#) the control's text, via its Smart Tag, invoke its actions list, and specify the required format (e.g. **Current User: {0}**).



The result is shown below.



See Also

[Create or Modify Watermarks of a Report](#)
[Add Page Numbers for Groups](#)

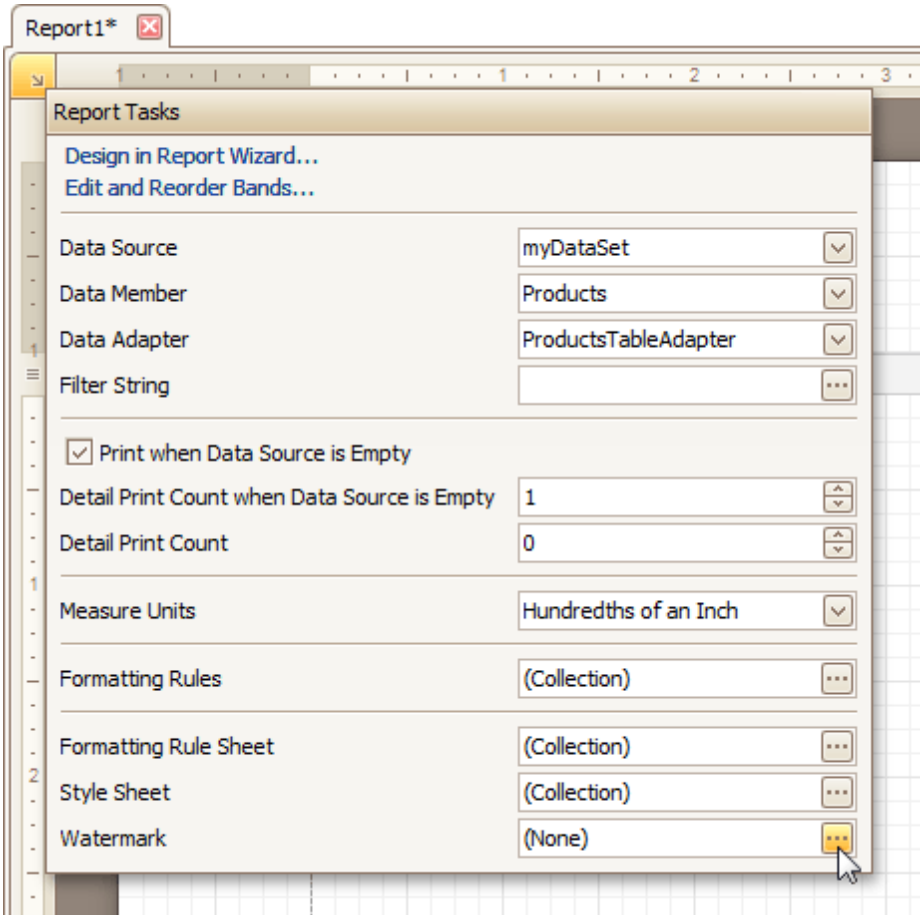
Create or Modify Watermarks of a Report

[Interface Element List for Windows Forms](#) > [Report Designer](#) > [Report Editing Basics](#) > [Create or Modify Watermarks of a Report](#)

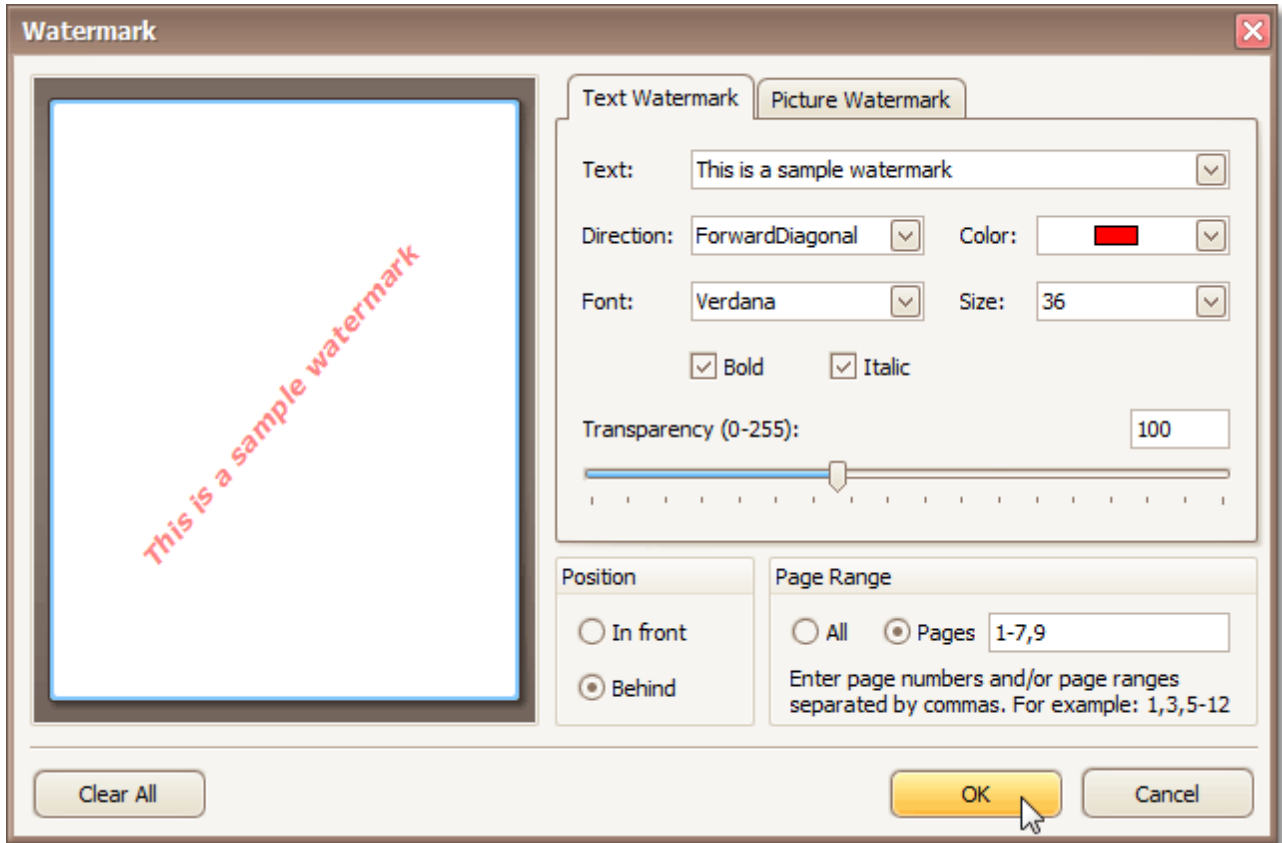
This document describes how to add a text *watermark* in a report, or turn a picture into a report's *background*. Note that watermarks are visible only in [Preview](#) and [HTML View](#) modes.

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

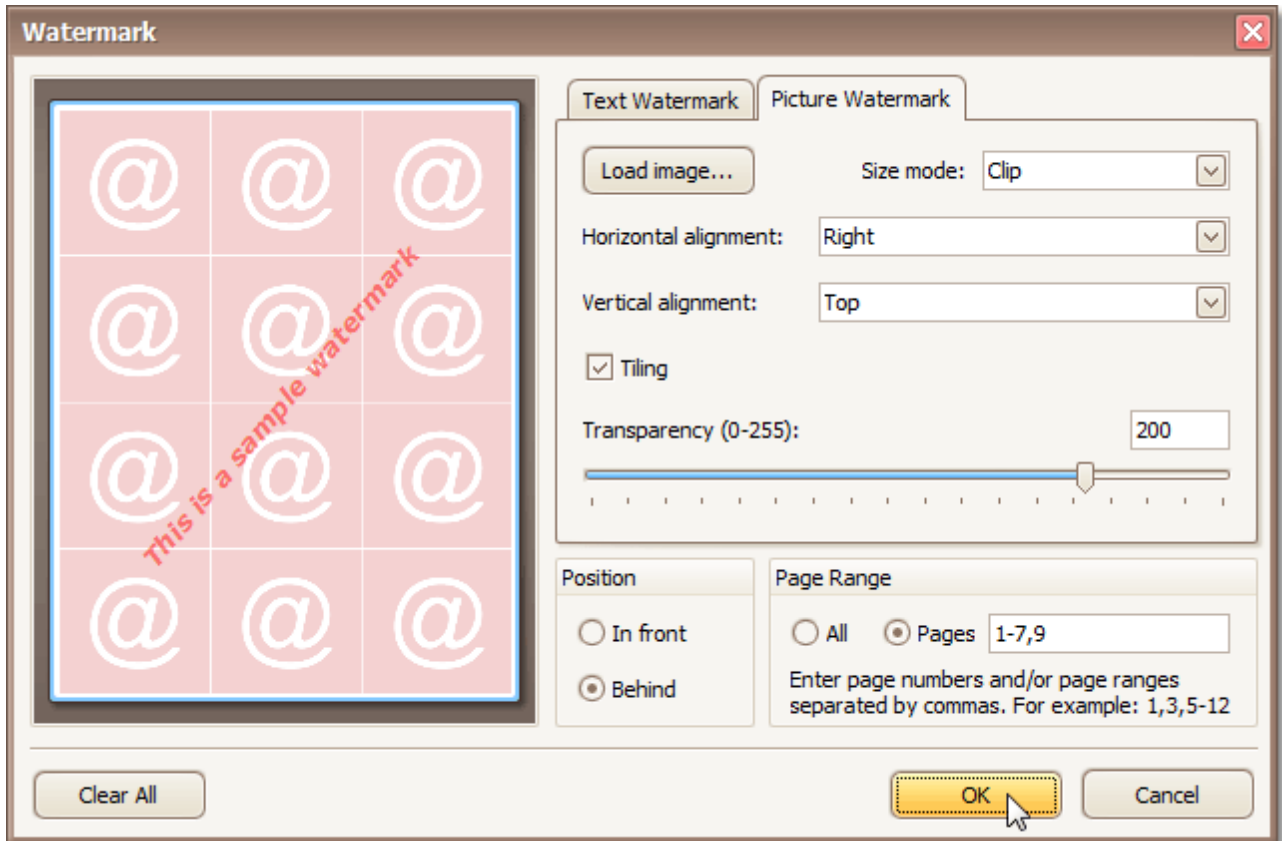
1. Click the report's [Smart Tag](#), and in its actions list, click the ellipsis button for the **Watermark** entry.



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



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.



As you can see, it is possible to use both textual and image watermarks simultaneously.

The report with watermark is now ready. Switch to the [Preview Tab](#), and view the result.



See Also

[Add Page Numbers and System Information to a Report](#)

Create Reports

[Interface Element List for Windows Forms](#) > [Report Designer](#) > [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.
- [Report Types](#)
The tutorials in this section provide you detailed instructions on how to create reports of different types with the Report Designer.
- [Styles and Conditional Formatting in Reports](#)
The topics of this section cover appearance-related information about the Report Designer.
- [Report Navigation](#)
The tutorials of this section cover the navigation-related features of the Report Designer.
- [Miscellaneous Report Management Capabilities](#)
The topics of this section cover the Report Designer features that don't fall into other categories.

Basic Operations

[Interface Element List for Windows Forms](#) > [Report Designer](#) > [Create Reports](#) > [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](#)
- [Controls Positioning](#)
- [Change Measurement Units of a Report](#)
- [Change Page Settings of a Report](#)

Create a New Report

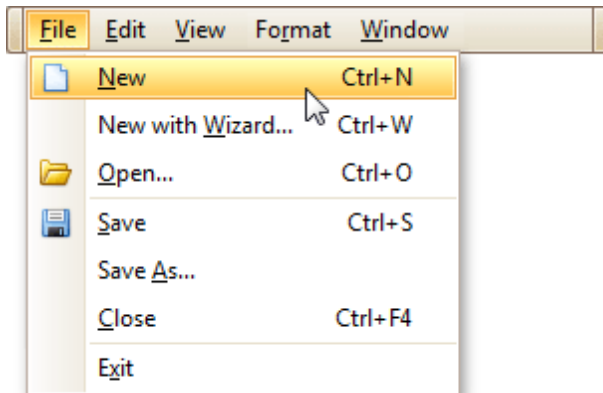
[Interface Element List for Windows Forms](#) > [Report Designer](#) > [Create Reports](#) > [Basic Operations](#) > [Create a New Report](#)


This topic explains how to create a new blank report in the Report Designer. Before you start, make sure to [back 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).



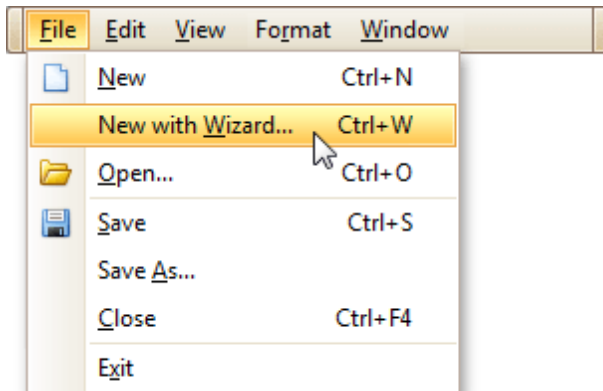
The [Main Toolbar](#) contains a button () with the same function.

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 [bands](#) - [Page Header and Footer](#), and the [Detail band](#).

Create a New Report Using the Report Wizard

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



For more information about this option, refer to [Report Wizard](#).

See Also

[Controls Positioning](#)
[Change Measurement Units of a Report](#)
[Change Page Settings of a Report](#)
[Bind a Report to Data](#)

Bind a Report to Data

[Interface Element List for Windows Forms](#) > [Report Designer](#) > [Create Reports](#) > [Basic Operations](#) > [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.

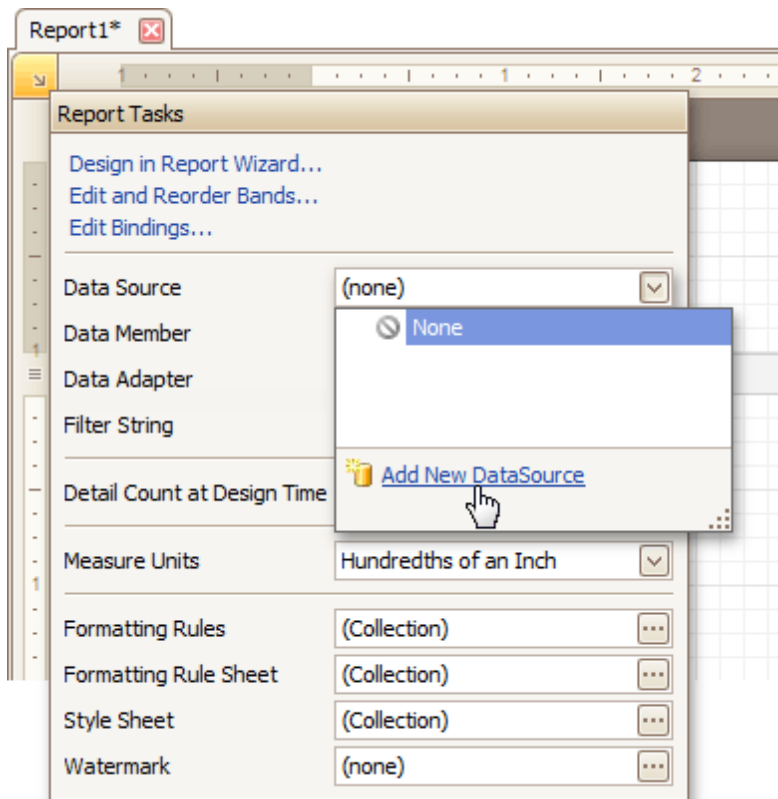
The document consists of the following sections.

- [Bind a Report to a Database](#)
- [Bind a Report to an Entity Framework Data Source](#)

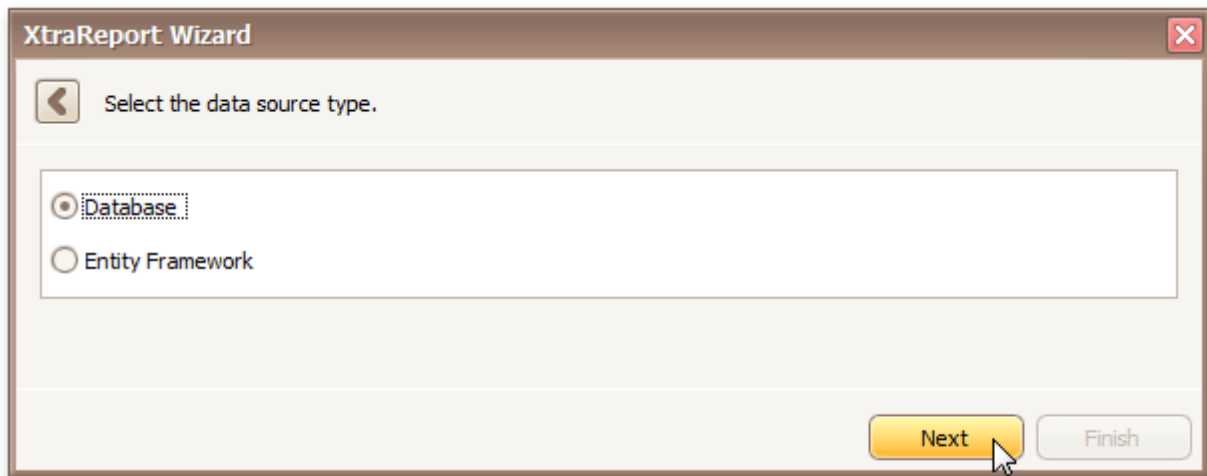
Bind a Report to a Database

To bind a report to a database, do the following.

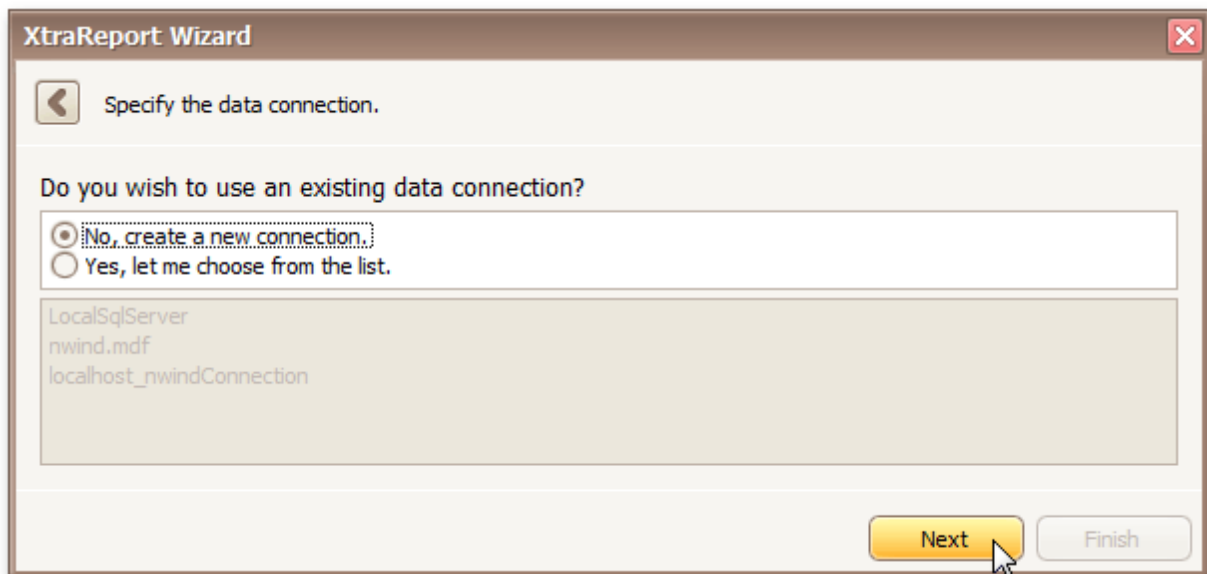
1. [Create a new report](#).
2. Click its [Smart Tag](#), and in the invoked actions list, expand the **Data Source** drop-down list and click **Add New DataSource**.



3. The first wizard page of the invoked **Data Source Wizard** allows you to specify what type of a data source you want to use. Select **Database** and click **Next** to proceed.



4. On the next page, specify the database to be used. If it is absent in the drop-down selector containing existing connections, select **No, create a new connection** and click **Next**.



Define a custom connection string, or select from the supported data source types. Depending on the data provider selected, it may be necessary to specify additional connection options (such as authentication type and database name) on this page.

The screenshot shows the 'XtraReport Wizard' dialog box with the following fields and values:

- Provider: Microsoft SQL Server
- Server name: localhost
- Authentication type: Windows authentication
- User name: (empty)
- Password: (empty)
- Database: nwind.mdf
- Connection name: localhost_nwindConnection 1

At the bottom right, there are two buttons: 'Next' (highlighted in yellow) and 'Finish'.

5. If server authentication is required for the selected database type, the next page will prompt you to specify whether or not you want to save the user credentials along with the connection string. Select the required option and click **Next**.

The screenshot shows the 'XtraReport Wizard' dialog box with the following text and options:

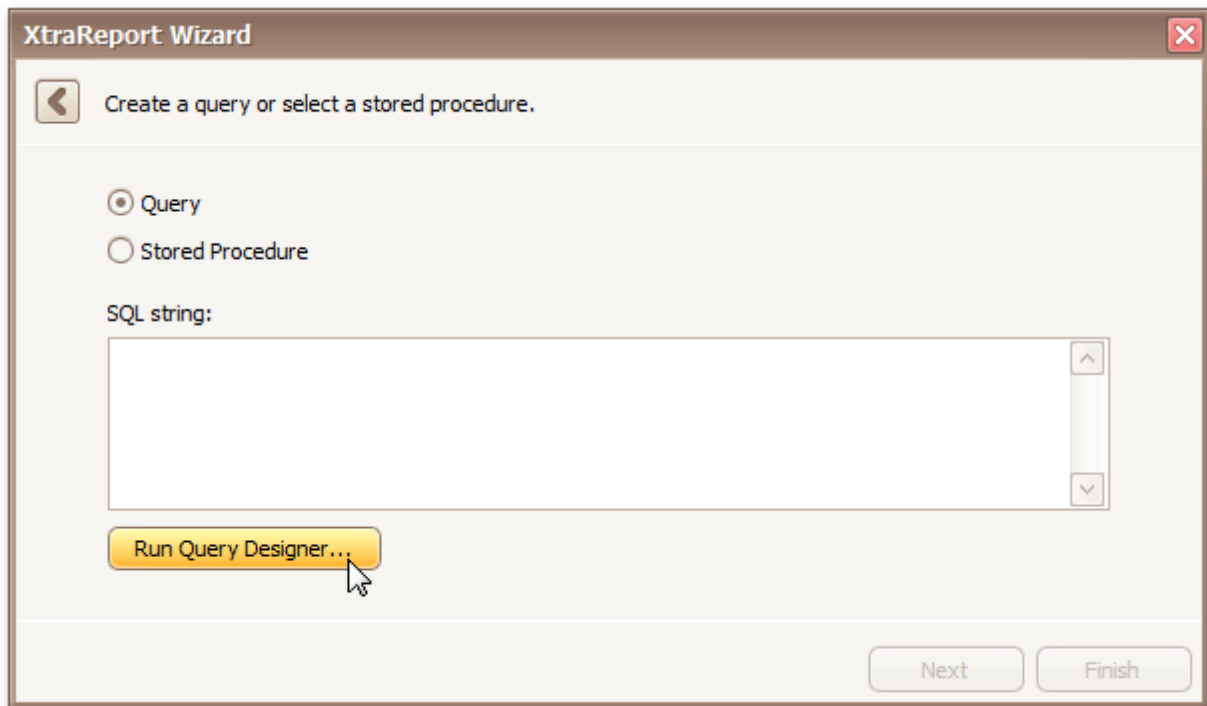
Save the connection string.

The connection uses server authentication.
Do you wish to save the user name and password?

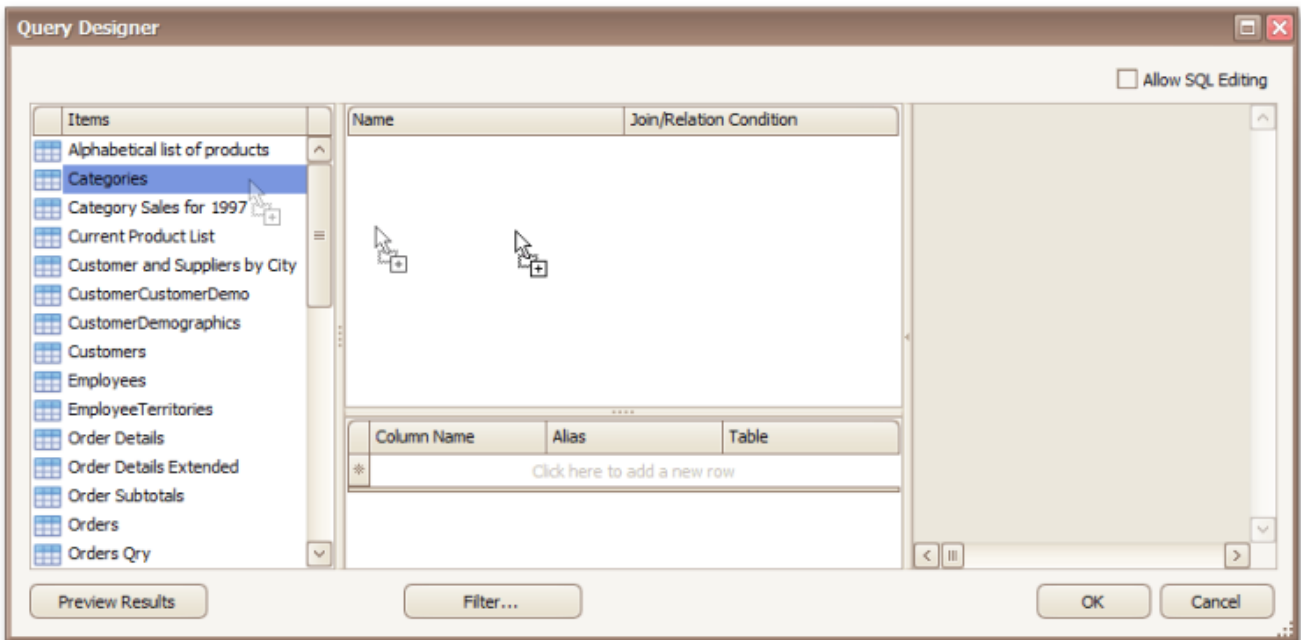
- Yes, save all required parameters.
- No, skip credentials for security reasons.

At the bottom right, there are two buttons: 'Next' (highlighted in yellow) and 'Finish'.

6. On the next page, you can construct an SQL query to obtain data from the database, or select a stored procedure. To construct an SQL query, click **Run Query Designer...**

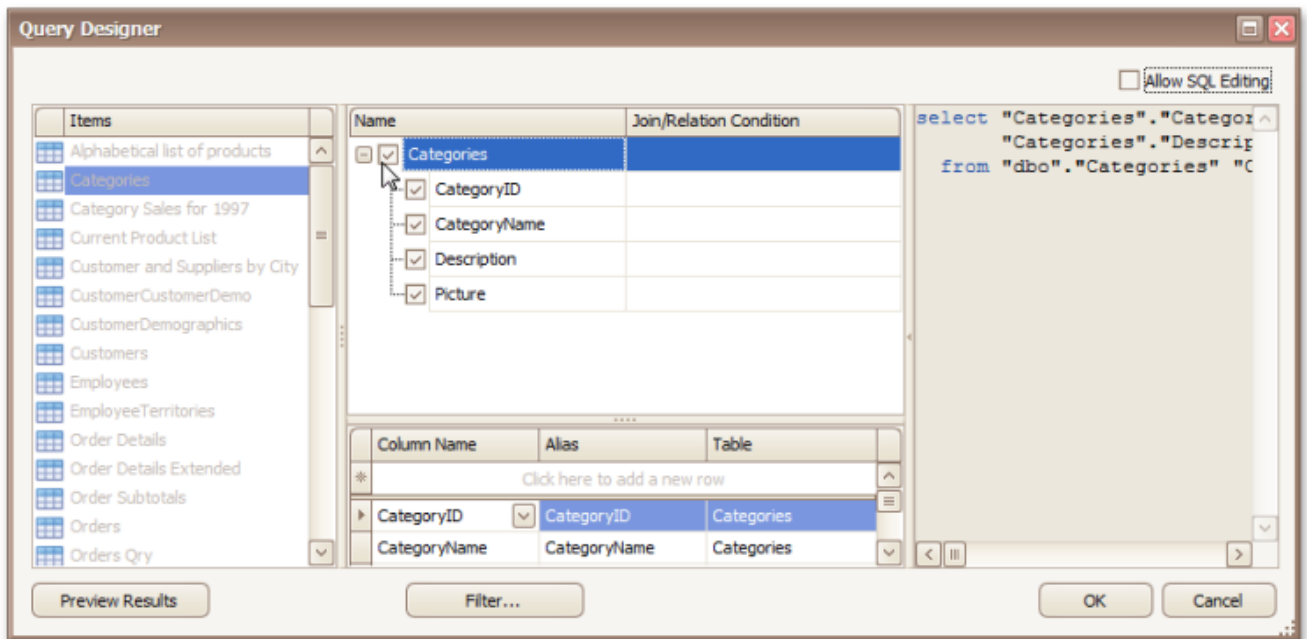


7. In the invoked **Query Designer** window, select an item from the list of available tables on the left and drop it onto the list of data tables to be used.



It is only possible to select a single table using the **Query Designer**. When creating a [master-detail report](#), add the master table first.

8. Enable the check box near the added table to include all of its fields in the data view, and click **OK** to exit the **Query Designer**.



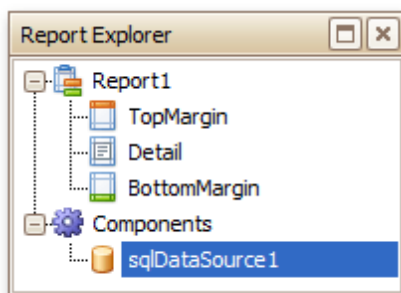
To assign a custom name to a data field, specify its **Alias** in the field list displayed below.

To manually customize an SQL string, enable the **Allow SQL Editing** option. Switching to this mode disables the visual features of the **Query Designer**, allowing you to directly edit the text of the SQL query.

Click **OK** to exit the **Query Designer**

Click **Finish** to exit the **Data Source Wizard**.

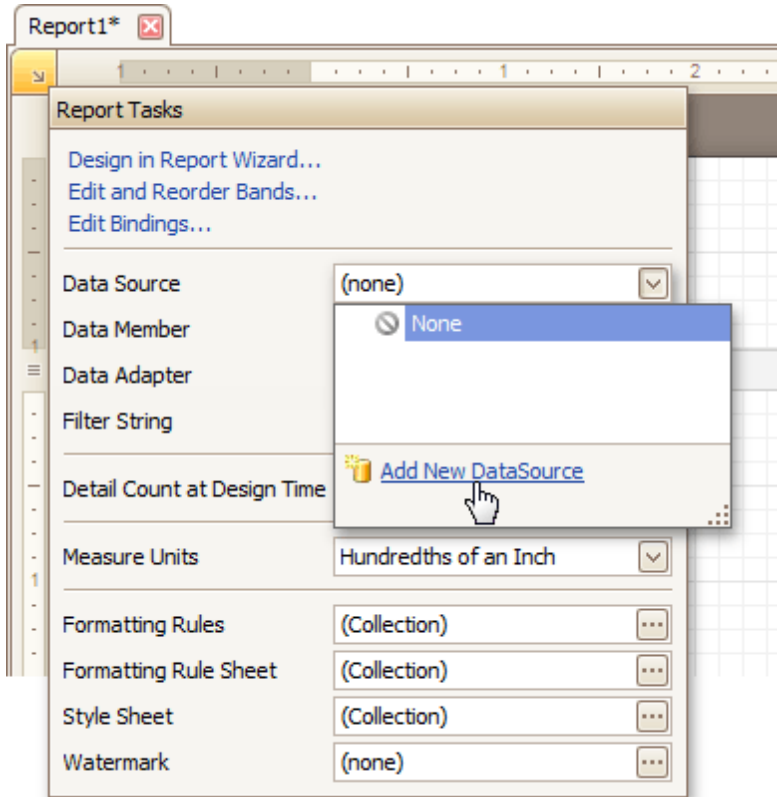
The newly created SQL data source will be displayed in the **Components** node of the [Report Explorer](#).



Bind a Report to an Entity Framework Data Source

To bind a report to an Entity Framework data source, do the following.

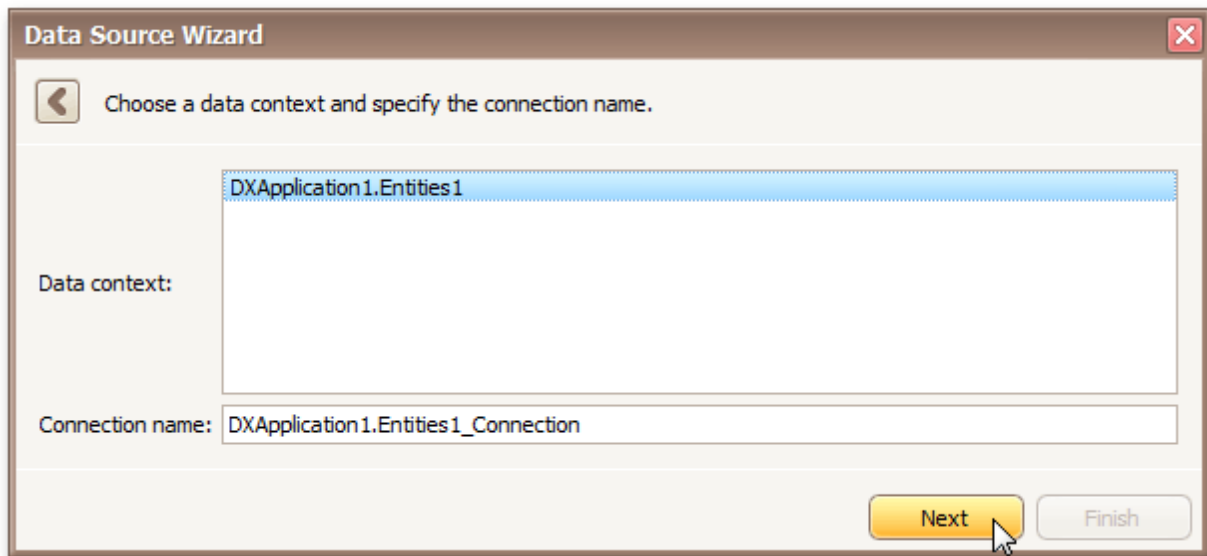
1. [Create a new report](#).
2. Click its [Smart Tag](#), and in the invoked actions list, expand the **Data Source** drop-down list and click **Add New DataSource**.



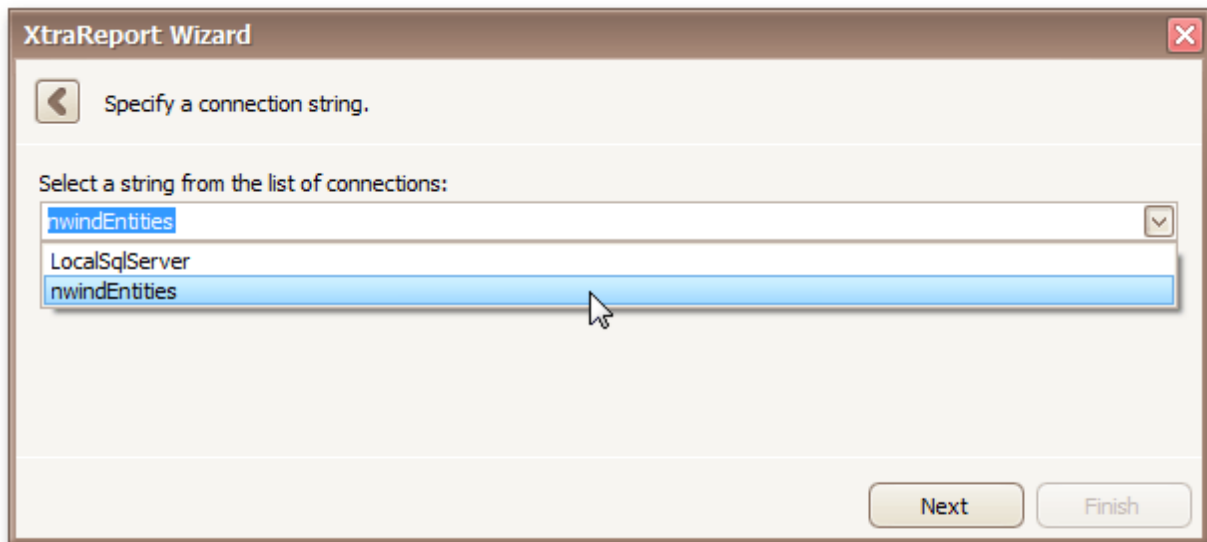
3. The first wizard page of the invoked **Data Source Wizard** allows you to specify what type of a data source you want to use. Select **Entity Framework** and click **Next** to proceed.



4. On the next page, select the required data context from the list of available data contexts and click **Next**



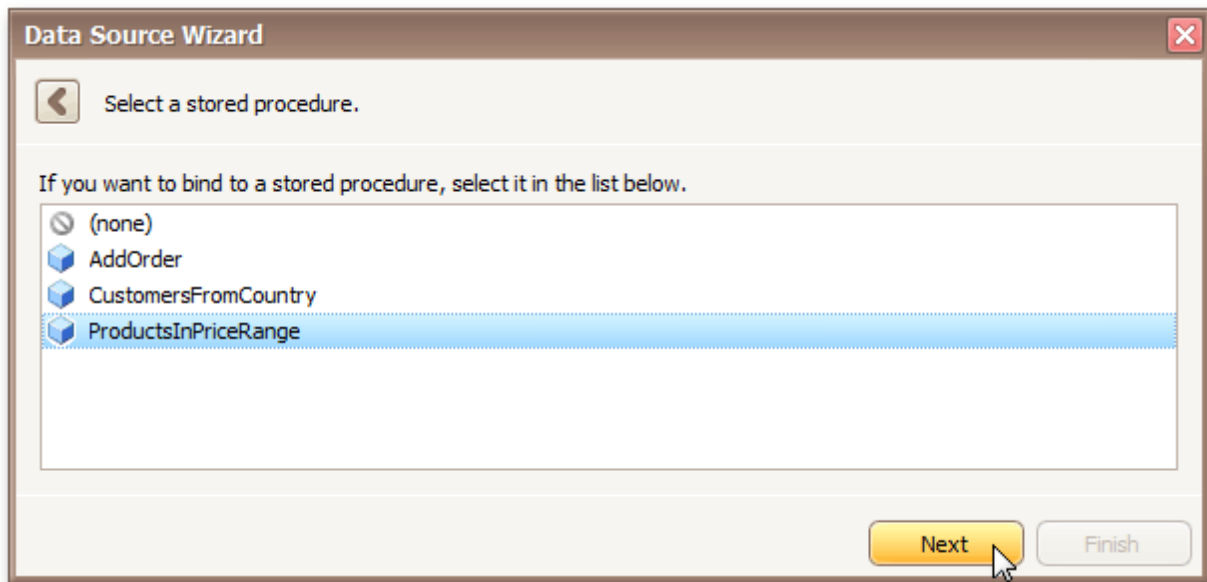
5. Select a connection string to be used to establish data connection.



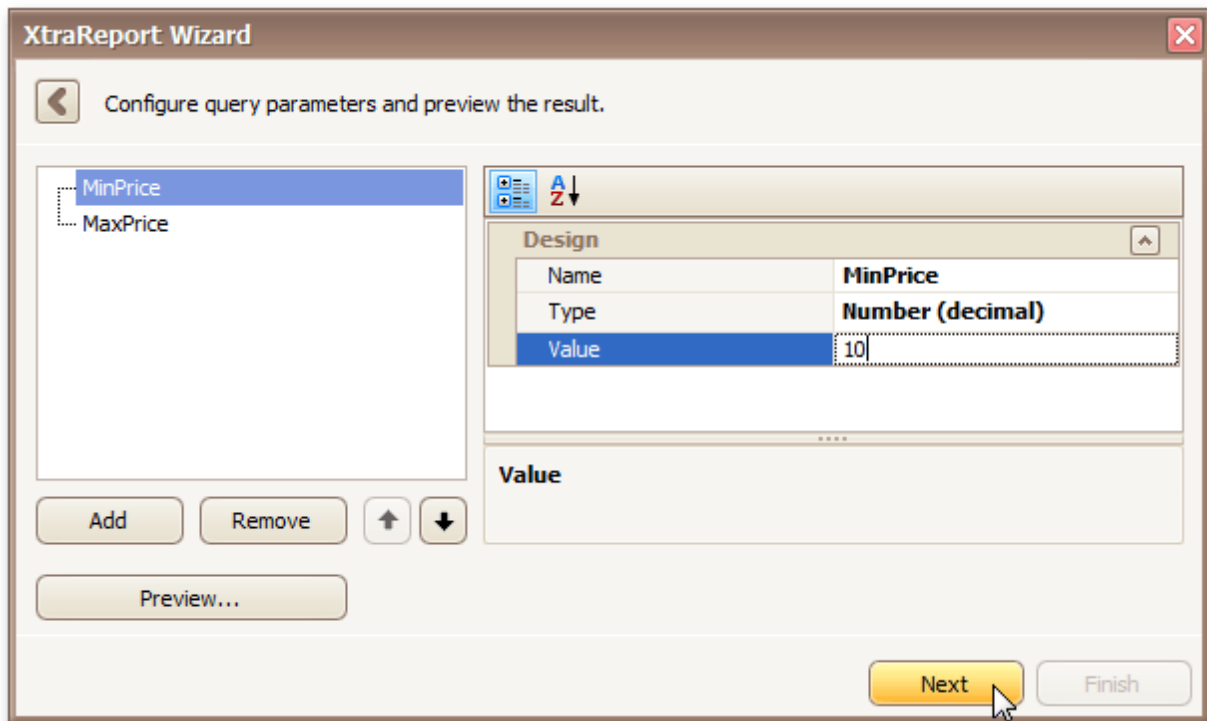
Click **Next** to proceed to the next page.

6. The next page prompts you to specify if you want to bind to a stored procedure.

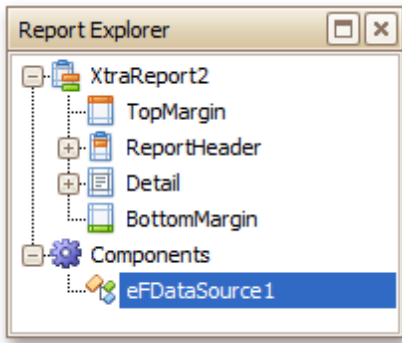
To bind to a stored procedure, select it in the list of the available stored procedures and click **Next**



On the next page, configure the parameters to be passed to the selected stored procedure. Be sure to specify the correct parameter **Type**.



The newly created Entity Framework data source will be displayed in the **Components** node of the [Report Explorer](#).



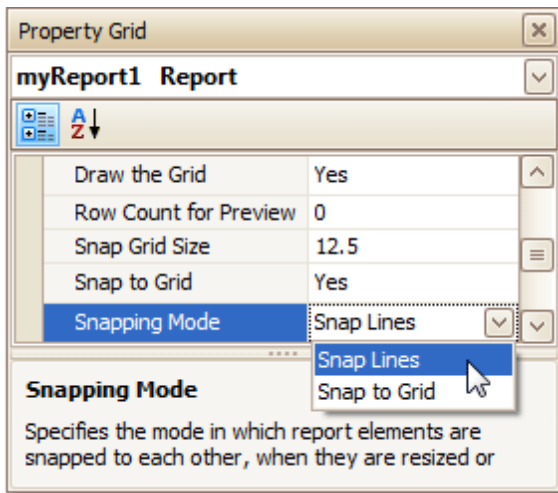
Controls Positioning

[Interface Element List for Windows Forms](#) > [Report Designer](#) > [Create Reports](#) > [Basic Operations](#) > [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.

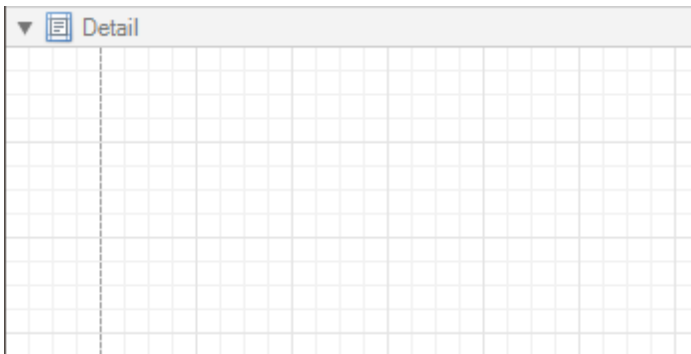
- [Snap Grid](#)
- [Snap Lines](#)

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

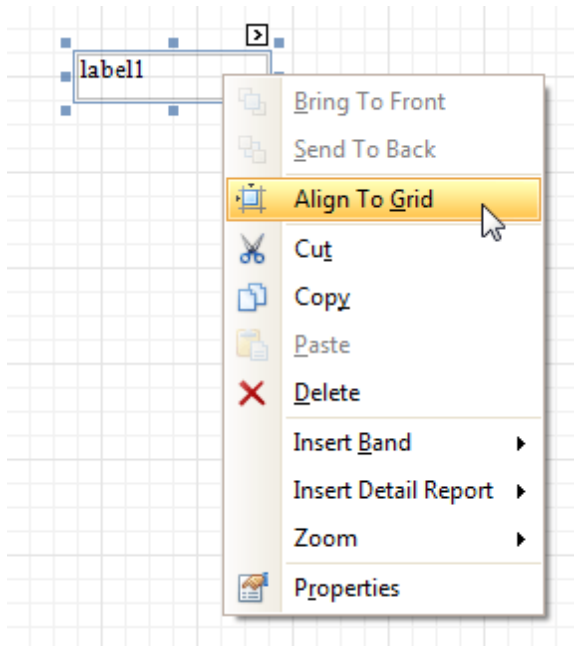


Snap Grid

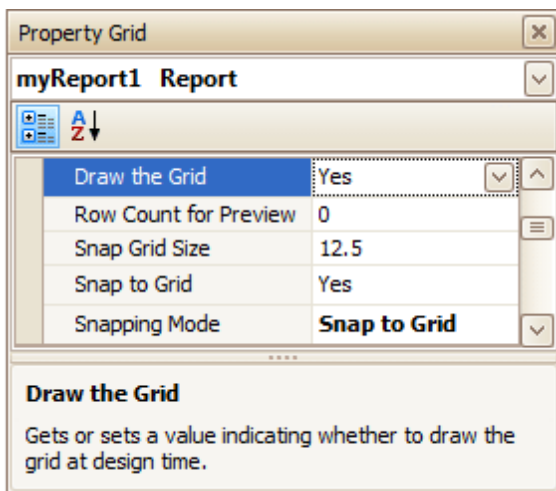
When a report is being designed in the [Design Panel](#), it is lined up by the **Snap Grid**. This helps to establish the distance between report elements, and to precisely align them to each other.



To quickly align a control to the report's Snap Grid, right click the control, and in the invoked [Context Menu](#), 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 [Property Grid](#).



You also can adjust the **Snap Grid Size**, which is measured in the [measurement units](#) 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.

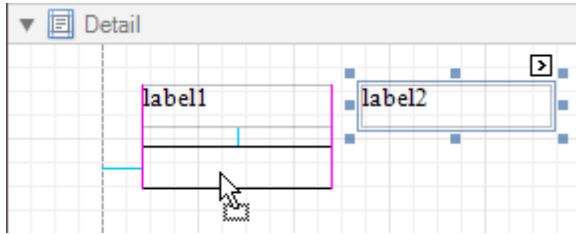
- For controls to be aligned to the Snap Grid while being moved:
 - Using the keyboard: move them using the ARROW keys.
 - Using the mouse: move them as usual.
- For controls to ignore the Snap Grid while being moved:
 - Using the keyboard: move them using ARROW keys while hold down CTRL.
 - Using the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

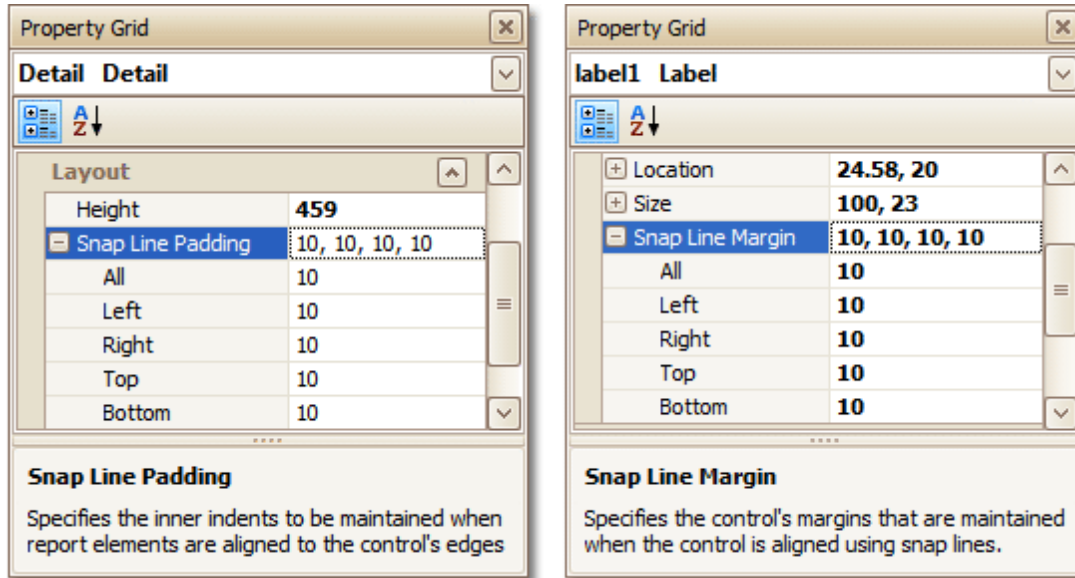
Snap Lines

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

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 (*padding*s for bands and [Panel](#), and *margins* for other controls) using the Property Grid.



To learn how to manage the position of multiple controls at one time, refer to [Change the Layout of Report Elements](#).

See Also

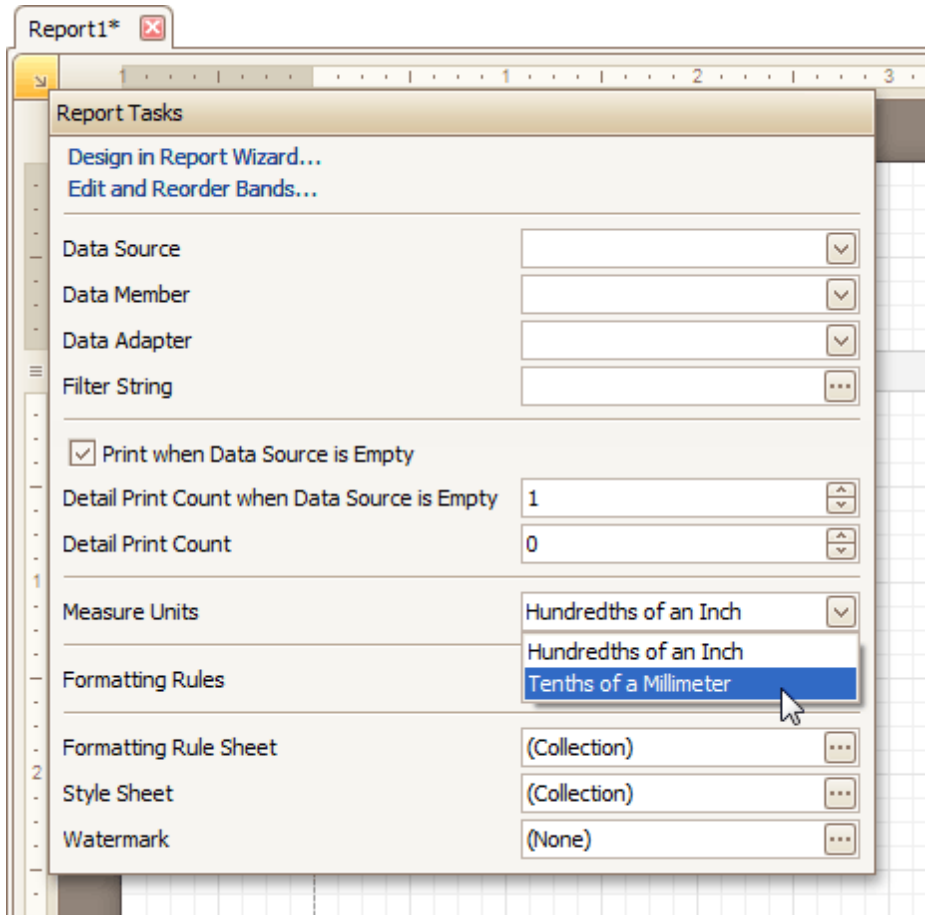
[Change Measurement Units of a Report](#)
[Change Page Settings of a Report](#)

Change Measurement Units of a Report

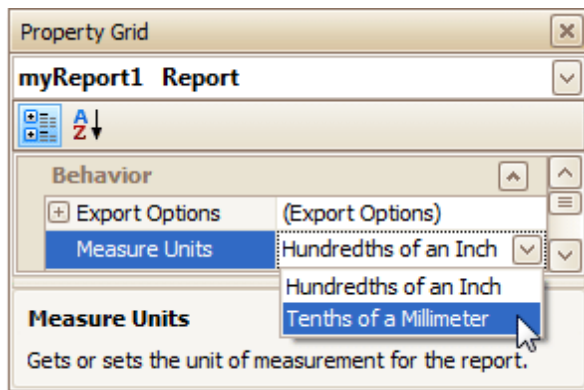
[Interface Element List for Windows Forms](#) > [Report Designer](#) > [Create Reports](#) > [Basic Operations](#) > [Change Measurement Units of a Report](#)

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](#) ...



... or via the [Property Grid](#).



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

See Also

[Controls Positioning](#)

[Change Page Settings of a Report](#)

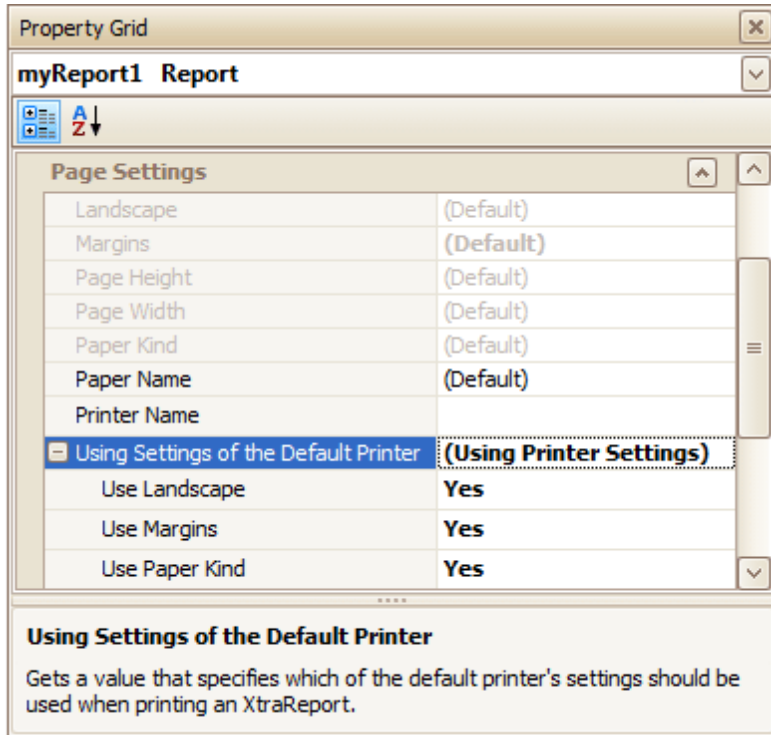
Change Page Settings of a Report

[Interface Element List for Windows Forms](#) > [Report Designer](#) > [Create Reports](#) > [Basic Operations](#) > [Change Page Settings of 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.

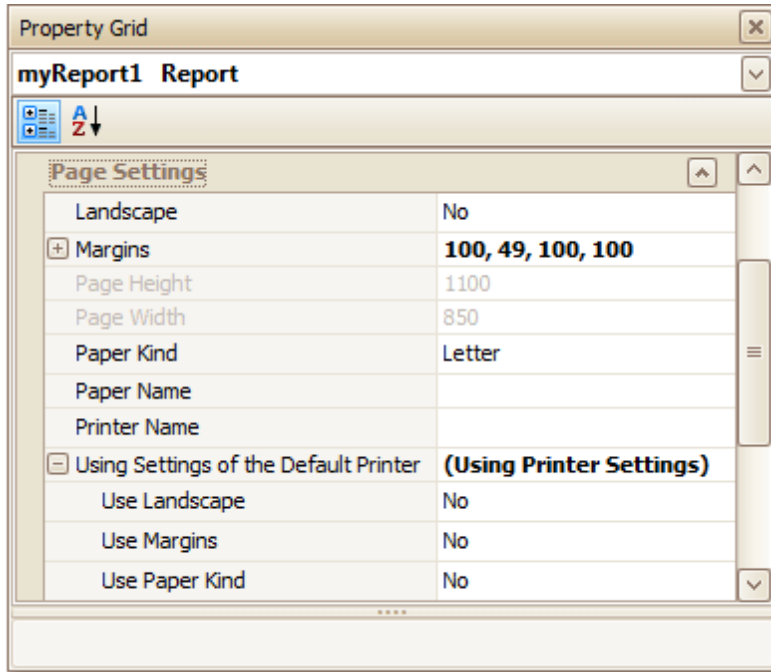
- **Using settings of the default printer**

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 [Property Grid](#) 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.



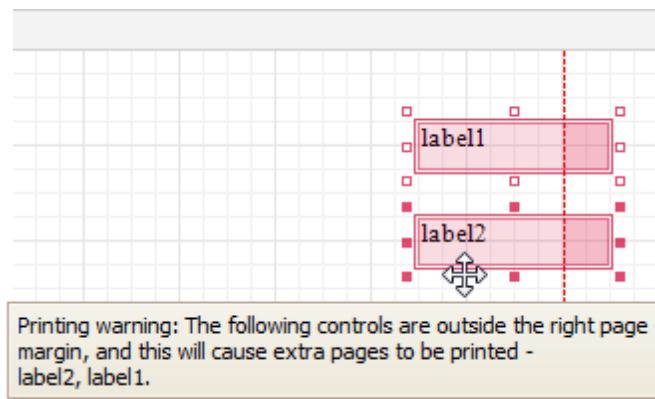
- **Specify the report's page settings**

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



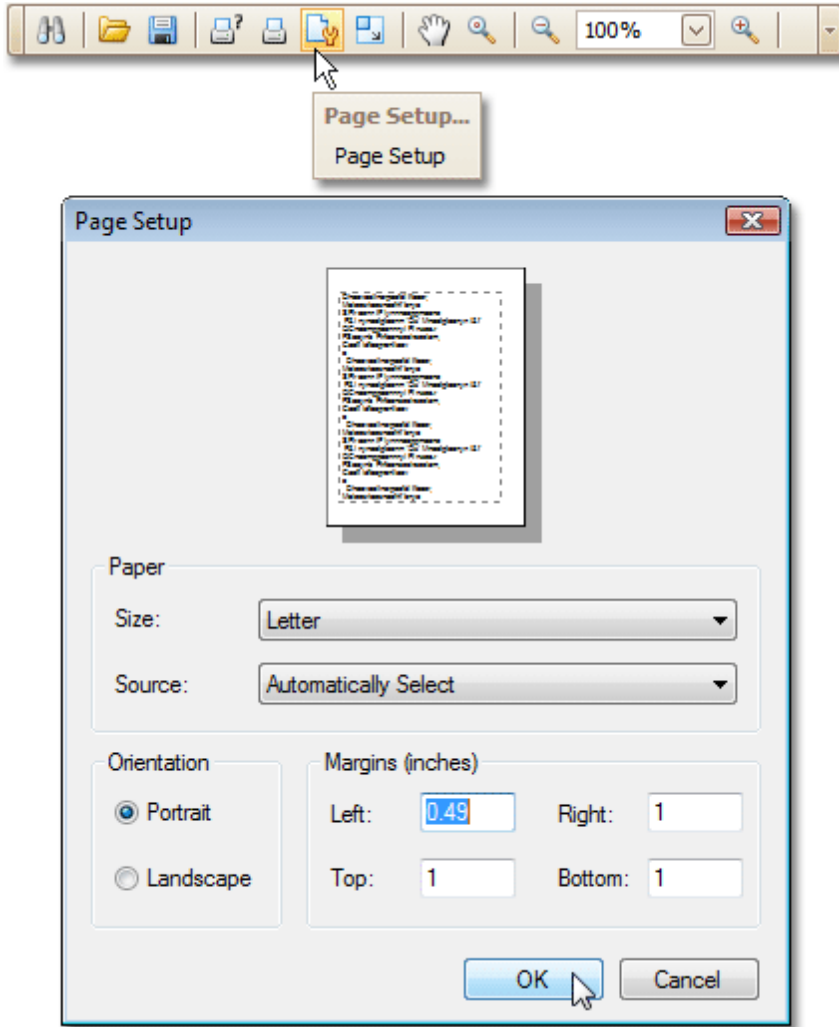
You can set the page orientation and modify the margins. The margin values are expressed in the report's [measurement units](#). You can select from the predefined paper sizes (**Paper Kind** property), choose **Custom** and create your own paper size, or select one which is already defined for this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



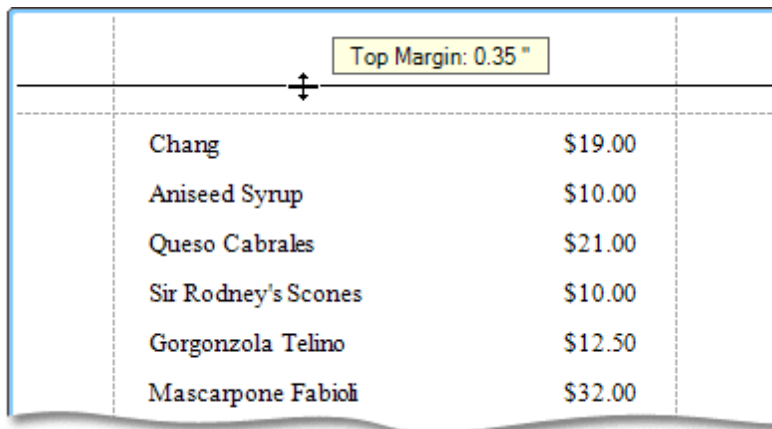
- **Modify the settings in Preview Tab**

The report's [Preview Tab](#) 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.

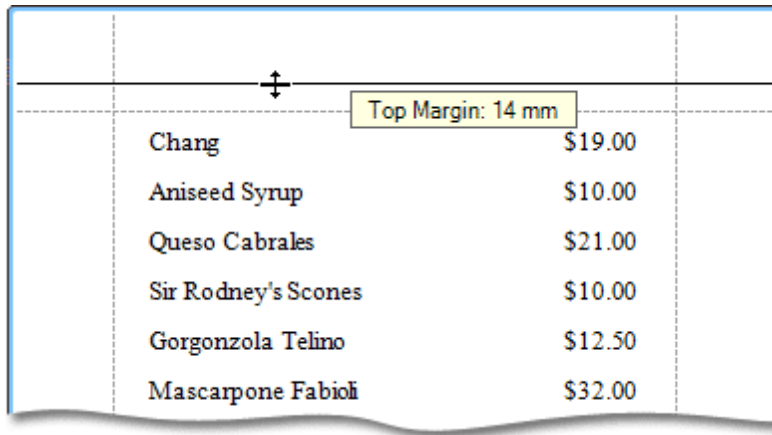


The margins can also be set visually by dragging the dashed lines in the Preview Tab as needed. To change the measurement units shown in the margins tooltips, customize the report's **Measure Units** property.

Measure Units = Hundredths of an Inch



Measure Units = Tenths of a Millimeter



The image shows a screenshot of a report table. The table has a light blue border and contains six rows of data. A yellow callout box with a double-headed vertical arrow points to the top margin of the table, labeled "Top Margin: 14 mm".

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

To learn about other options available for a report, refer to [Report Settings](#).

See Also

[Controls Positioning](#)










[Change Measurement Units of a Report](#)

Report Types

[Interface Element List for Windows Forms](#) > [Report Designer](#) > [Create Reports](#) > [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	 Table Report	 Label Report
 Master-Detail Report (Detail Bands)	 Multi-Column Report	 Cross-Tab Report
 Parameterized Report	 Chart with Static Series	 Chart with Dynamic Series

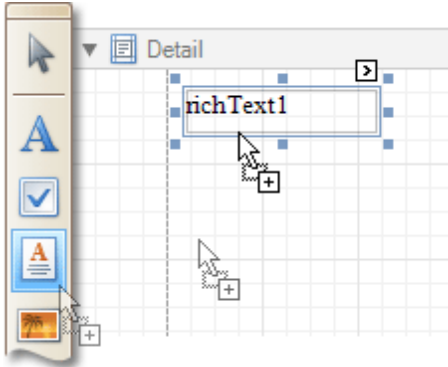
Static Report

[Interface Element List for Windows Forms](#) > [Report Designer](#) > [Create Reports](#) > [Report Types](#) > [Static Report](#)

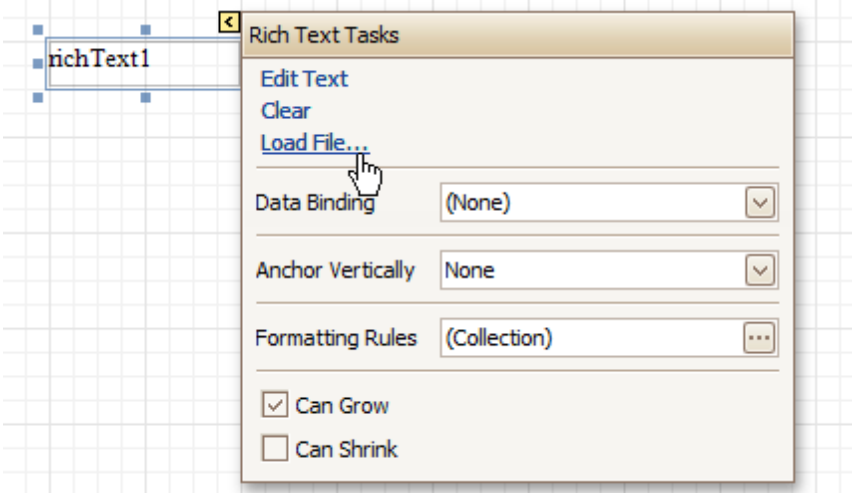
This tutorial describes the steps to create a *static report*, which means that the report will not be bound to a data source. In this example, we will create a simple one-page announcement to be repeated 20 times in a report.

To create a static report, do the following.

1. [Create a new report](#).
2. From the [Control Toolbox](#), drop the [Rich Text](#) control onto the [Detail band](#).



3. Select the created control and click its [Smart Tag](#). In the invoked actions list, click the **Load File...** context link.

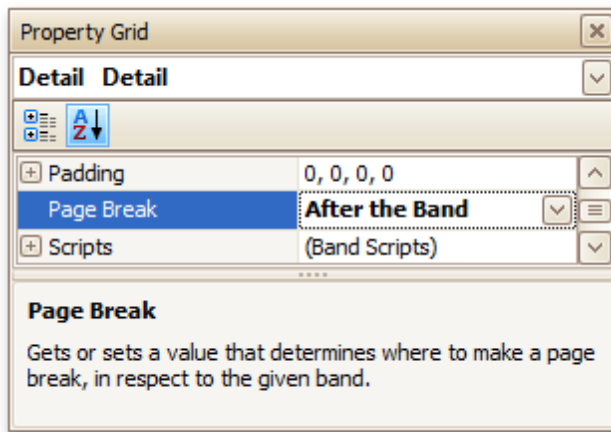


In the invoked dialog, define the path to an RTF or TXT file containing a text of the announcement, and click **Open**.

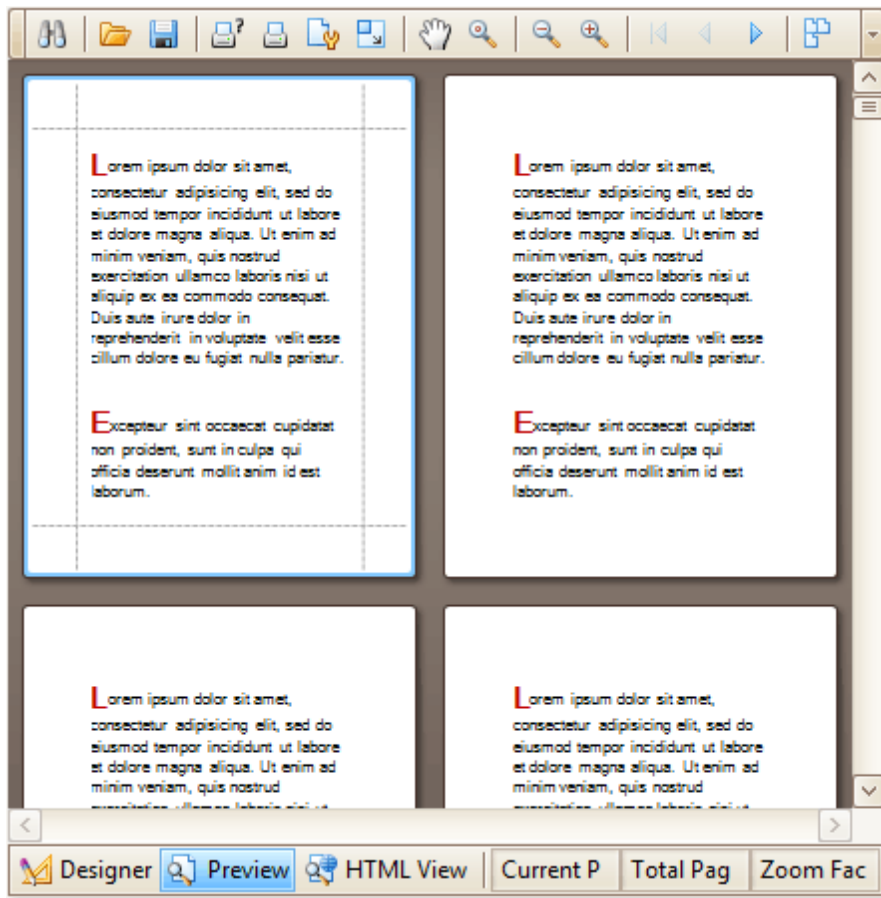
Note

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 [Property Grid](#) 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

[Table Report](#)

[Label Report](#)

[Multi-Column Report](#)

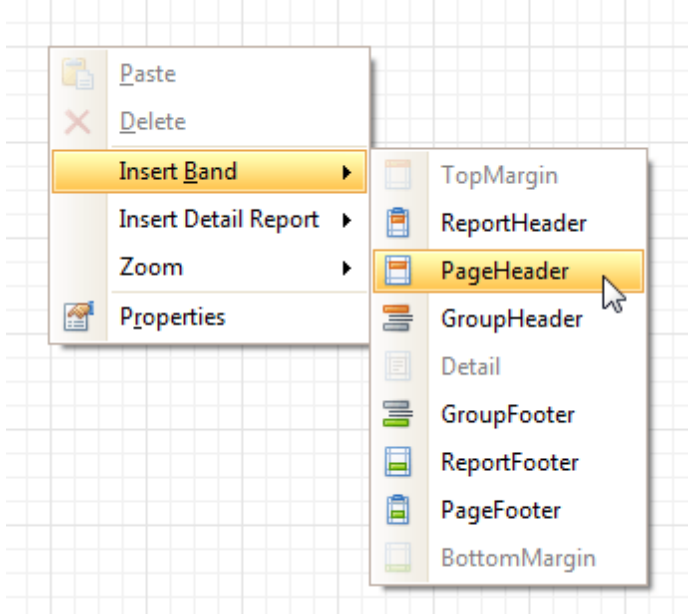
Table Report

[Interface Element List for Windows Forms](#) > [Report Designer](#) > [Create Reports](#) > [Report Types](#) > [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 [master-detail report](#) or [cross-tab report](#).

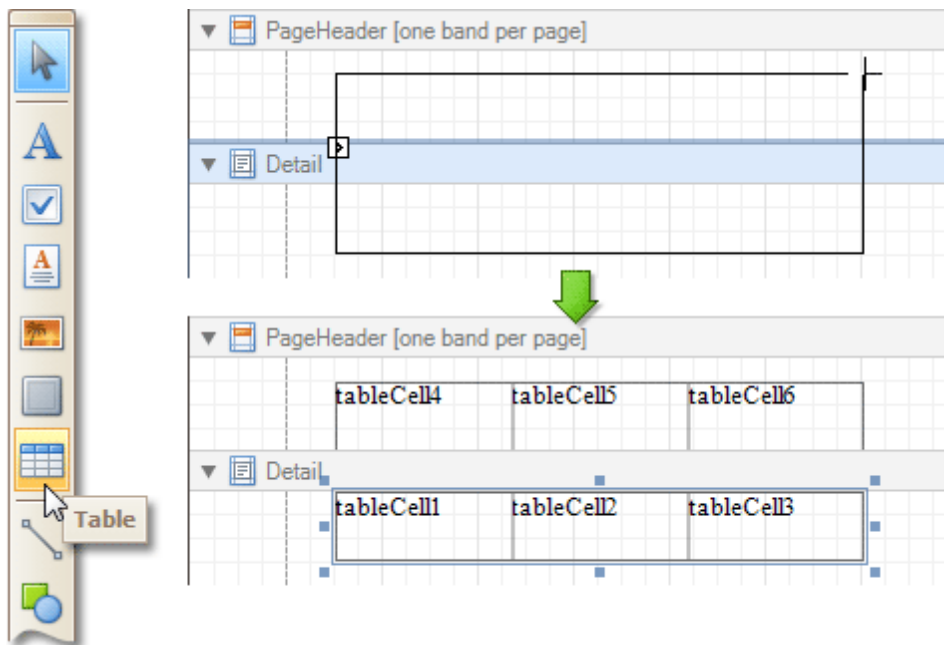
To create a table report, follow the steps below.

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



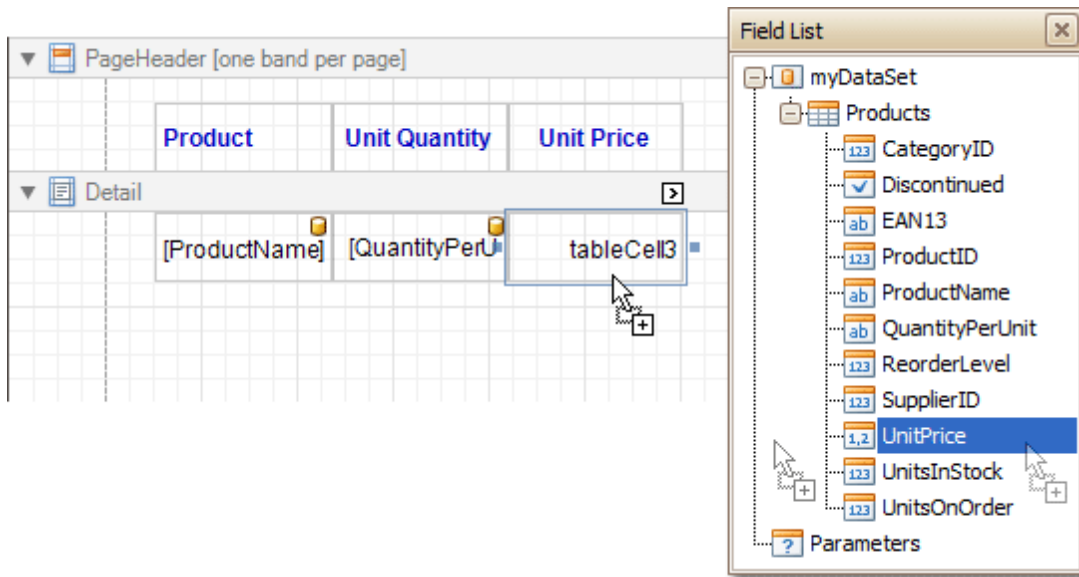
4. Now, add two [Table](#) controls to the report's Page Header and [Detail band](#).

To do this, in the [Toolbox](#), 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 [Field List](#) onto the cells.



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

A noteworthy feature is the capability to specify [odd-even styles](#) for the detail table.

The table report is now ready. 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[Multi-Column Report](#)

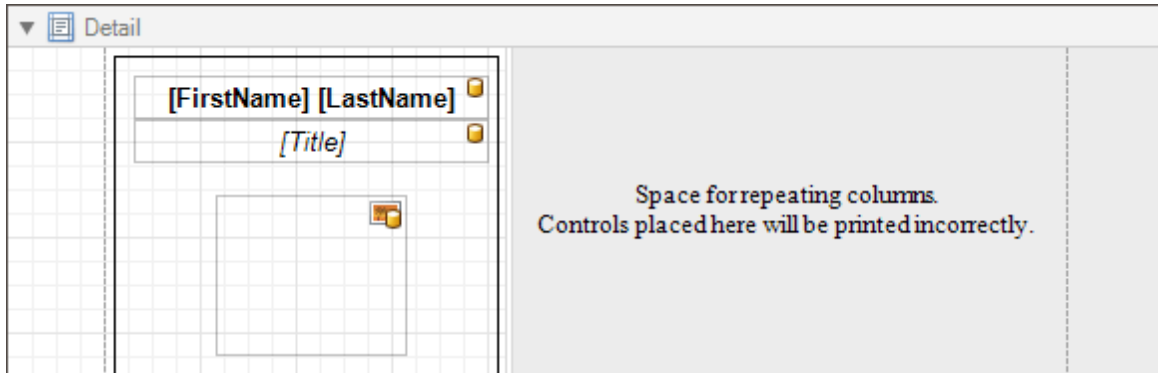
Label Report

[Interface Element List for Windows Forms](#) > [Report Designer](#) > [Create Reports](#) > [Report Types](#) > [Label Report](#)

This tutorial describes the steps to create a *label report* containing employee badges, using the [Report Wizard](#).

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 [Label Report Wizard](#).
3. [Bind the report to a data source](#) 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 [Preview Tab](#), and view the result.

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

See Also

[Static Report](#)

[Table Report](#)

[Multi-Column Report](#)

Master-Detail Report (Detail Report Bands)

[Interface Element List for Windows Forms](#) > [Report Designer](#) > [Create Reports](#) > [Report Types](#) > [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 [Detail Report band](#).

To start with this tutorial, [Create a new report](#) and [bind the report to a data source](#). It is only possible to select a single table when binding to data via **Data Source Wizard**. For this tutorial, select the table that will be used as the principal table in the master-detail relation.

The topic consists of the following sections.

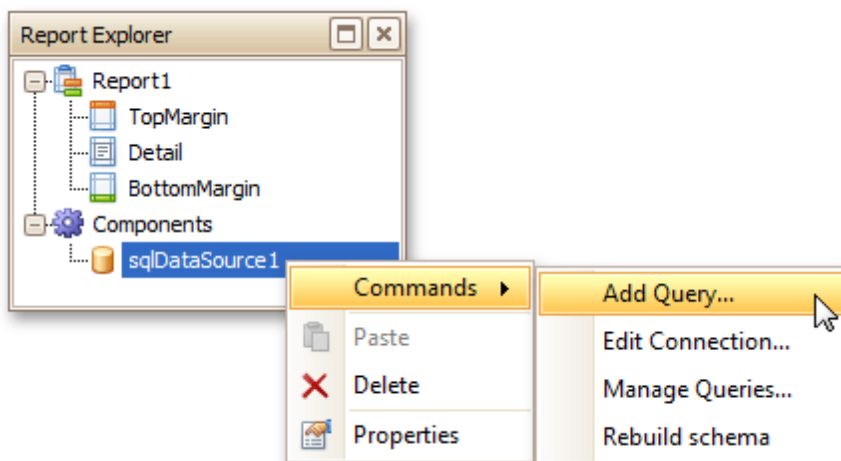
- [Provide an Report Data Source with a Master-Detail Relation](#)
- [Design a Master-Detail Report](#)
- [View the Result](#)

Provide a Report Data Source with a Master-Detail Relation

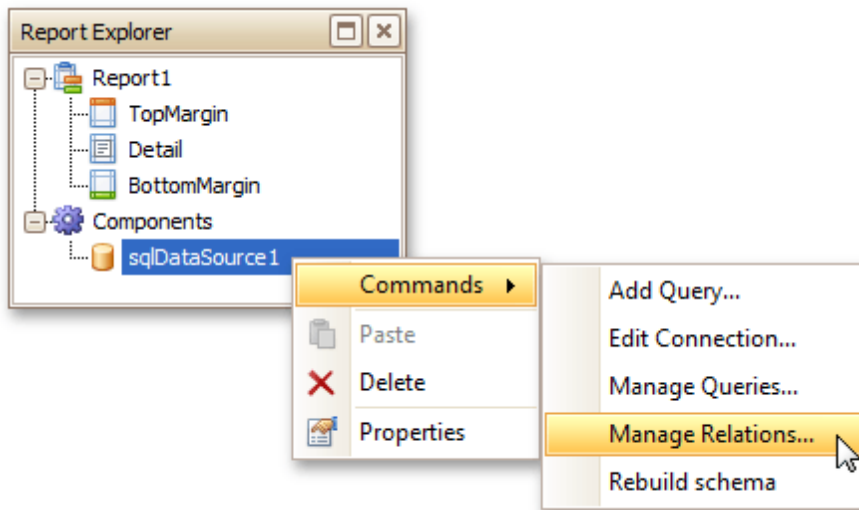
This section of the tutorial describes how to provide an SQL data source with a master-detail relation. If you are using an Entity Framework data source that contains data members with master-detail relations between them, the existing relations will be used automatically. In this case, you can skip this section of the tutorial and proceed to the next section: [Design a Master-Detail Report](#).

To add a master-detail relation to an SQL data source, do the following.

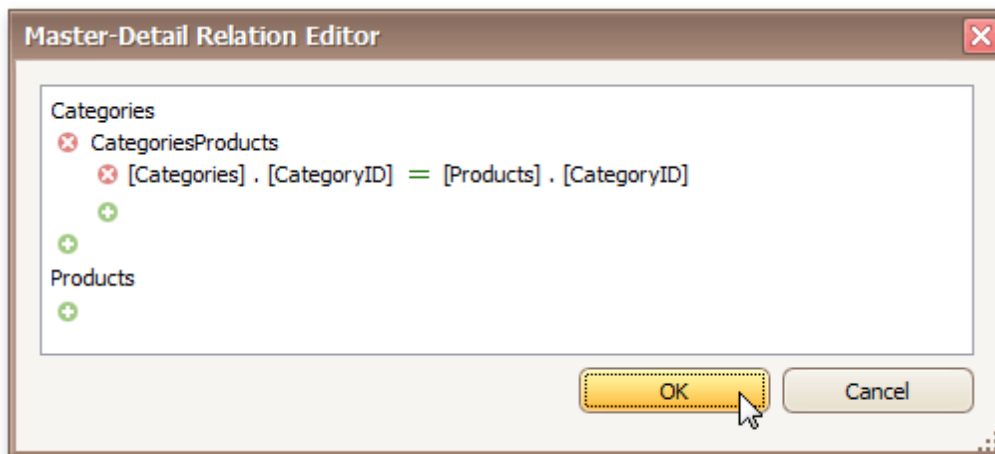
1. First you need to add a detail table to the report data source. To do this, right-click the data source in the **Report Explorer**, and select **Commands | Add Query...** in the invoked context menu.



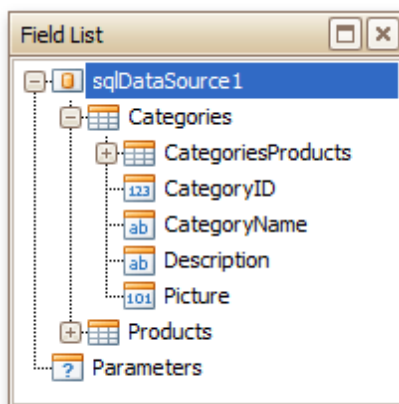
2. In the invoked **Query Editor**, click **Run Query Designer....**
3. Add the detail table to the query and click **OK**. Next, click **Finish** to exit the **Query Editor**.
4. Next, specify the relation between the data source tables. To do this, right-click the data source in the **Report Explorer**, and select **Commands | Manage Relations...** in the invoked context menu.



5. In the invoked **Master-Detail Relation Editor**, click the + button next to the master query to add a new relation. Specify a relation condition as shown in the following image and click **OK** to exit the dialog.



6. The **Field List** will be updated to reflect the added relation.



Design a Master-Detail Report

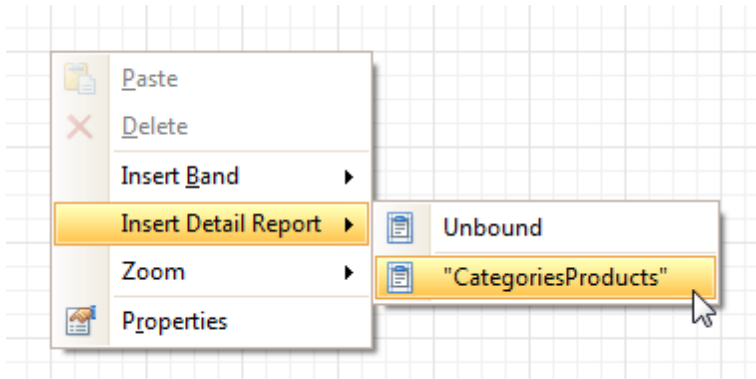
To create the layout of a master-detail report, do the following.

1. Allocate parts of a master report on the report's [Detail Band](#).

For the master report to be generated properly, the report's **Data Member** should be set to the master query. If you added the master query first, this property is set to the required value automatically. To manually specify the data member, click the report's smart tag and in the invoked actions list, expand

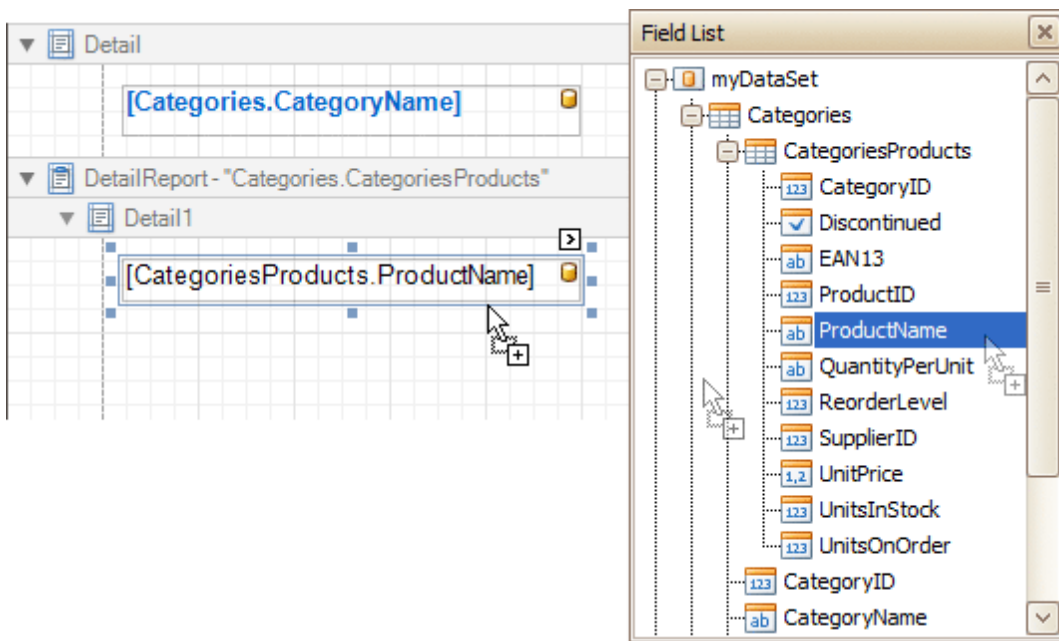
the drop-down list for the **Data Member** property and select the master query.

2. Now, to add a detail report band, right-click anywhere on the report's surface, and in the invoked [Context Menu](#), point to **Insert Detail Report**. When the report's data source contains a data relationship, it is displayed in the Context Menu.



3. Then, drop the required data fields from the Field List onto the detail report band.

Note that you should drop items from the *relation node* (in this example it is the **CategoriesProducts** section), for the detail report to be generated correctly.



View the Result

The master-detail report is now ready. Switch to the [Preview Tab](#), and view the result.

	<p>Beverages</p> <p>Côte de Blaye</p> <p>Ipoh Coffee</p> <p>Condiments</p> <p>Northwoods Cranberry Sauce</p> <p>Vegie-spread</p> <p>Confections</p> <p>Sir Rodney's Marmalade</p> <p>Gumbär Gummibärchen</p> <p>Schoggi Schokolade</p> <p>Tarte au sucre</p> <p>Dairy Products</p> <p>Queso Manchego La Pastora</p> <p>Mascarpone Fabioli</p> <p>Raclette Courdavault</p> <p>Camembert Pierrot</p> <p>Gudbrandsdalsost</p> <p>Mozzarella di Giovanni</p>	

See Also

[Parameterized Report](#)

Multi-Column Report

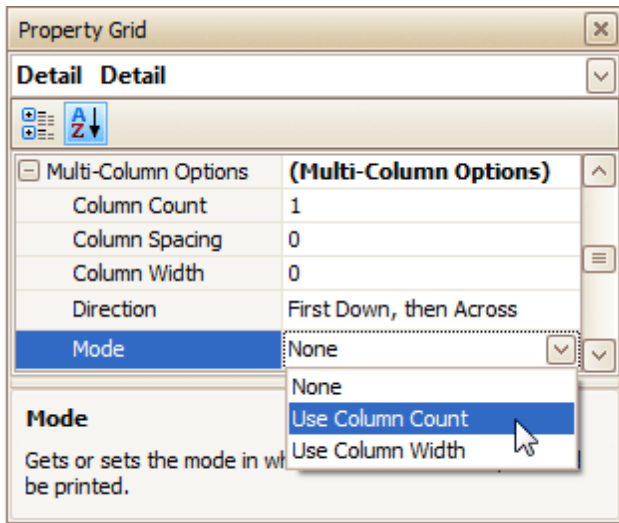
[Interface Element List for Windows Forms](#) > [Report Designer](#) > [Create Reports](#) > [Report Types](#) > [Multi-Column Report](#)

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.

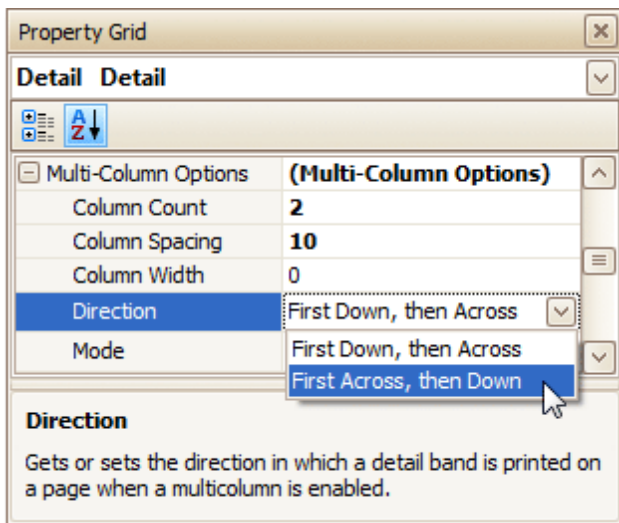
To demonstrate the multi-column feature, we'll use a report with grouping, similar the one created in the following tutorial: [Change or Apply Data Grouping to a Report](#).

1. Select the [Detail band](#), and in the [Property Grid](#), expand the **Multi-Column Options** section.

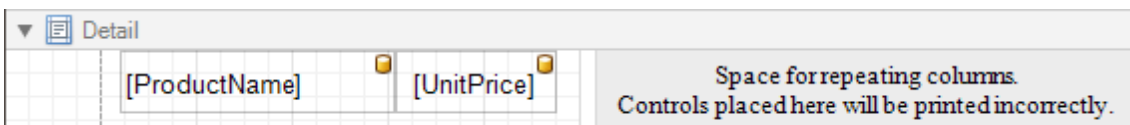
First, set the required **Mode**. It determines whether the number of columns is manually specified, or it depends on the fixed column width.



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.



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.



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
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 Shoyu	\$15.50	Gula Malacca	\$19.45
Sirop 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 Gummibärchen	\$31.23	Schoggi Schokolade	\$43.90
Chocolate	\$12.75	Maxilaku	\$20.00
Valkoinen sukkaa	\$16.25	Tarte au sucre	\$49.30
Scottish Longbreads	\$12.50		

See Also[Label Report](#)

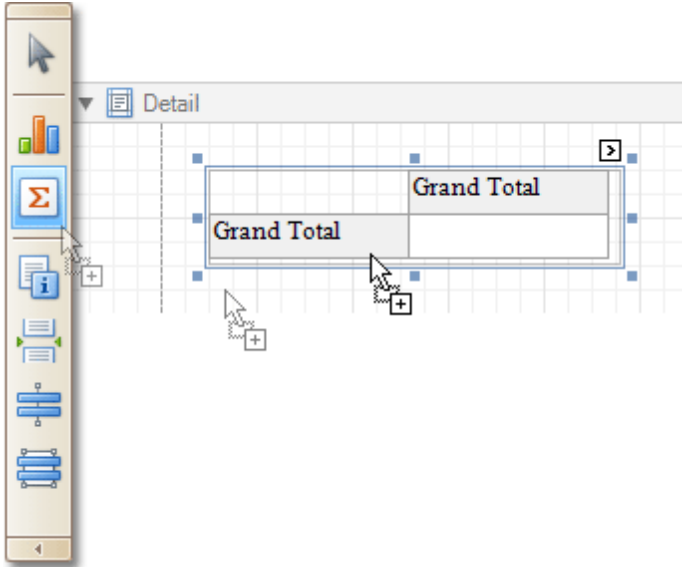
Cross-Tab Report

[Interface Element List for Windows Forms](#) > [Report Designer](#) > [Create Reports](#) > [Report Types](#) > [Cross-Tab Report](#)

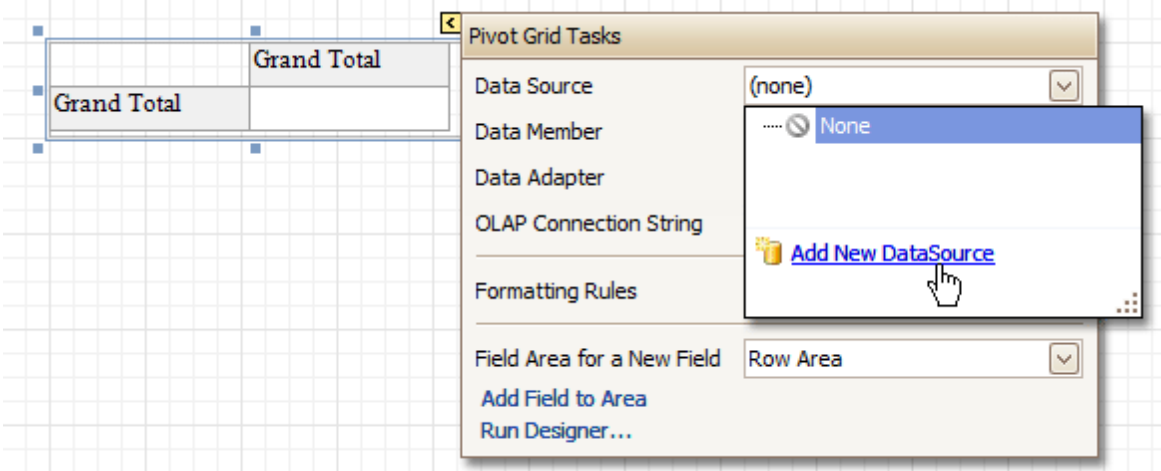
This tutorial describes the steps to create a *cross-tab report* using a [Pivot Grid](#) control. This feature should not be confused with the [master-detail report](#) or [table report](#).

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

1. [Create a new report](#).
2. Drop the [Pivot Grid](#) control from the [Toolbox](#) onto the report's [Detail band](#).



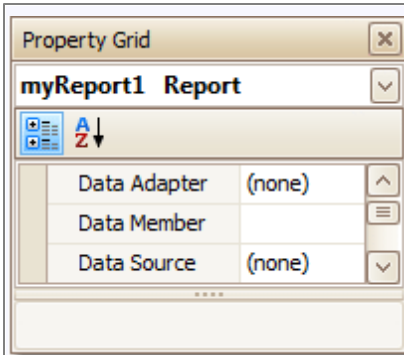
3. To bind the pivot grid to a data source, click its [Smart Tag](#), and in the invoked actions list, expand the **Data Source** drop-down selector and click **Add New DataSource**.



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 [Bind a Report to Data](#), as this process is similar.

Note

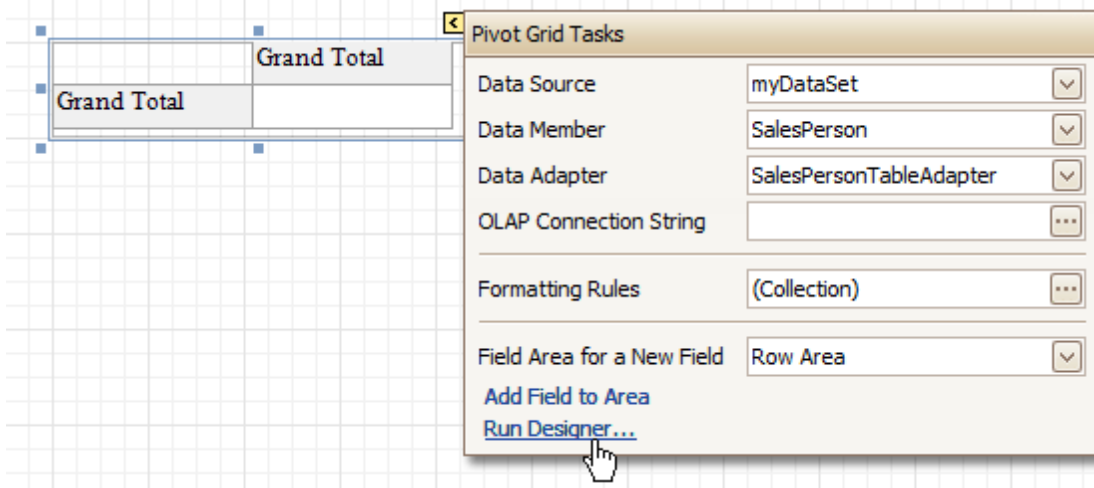
Note that after these steps, the [report's](#) **Data Source** property must be set to **None**.



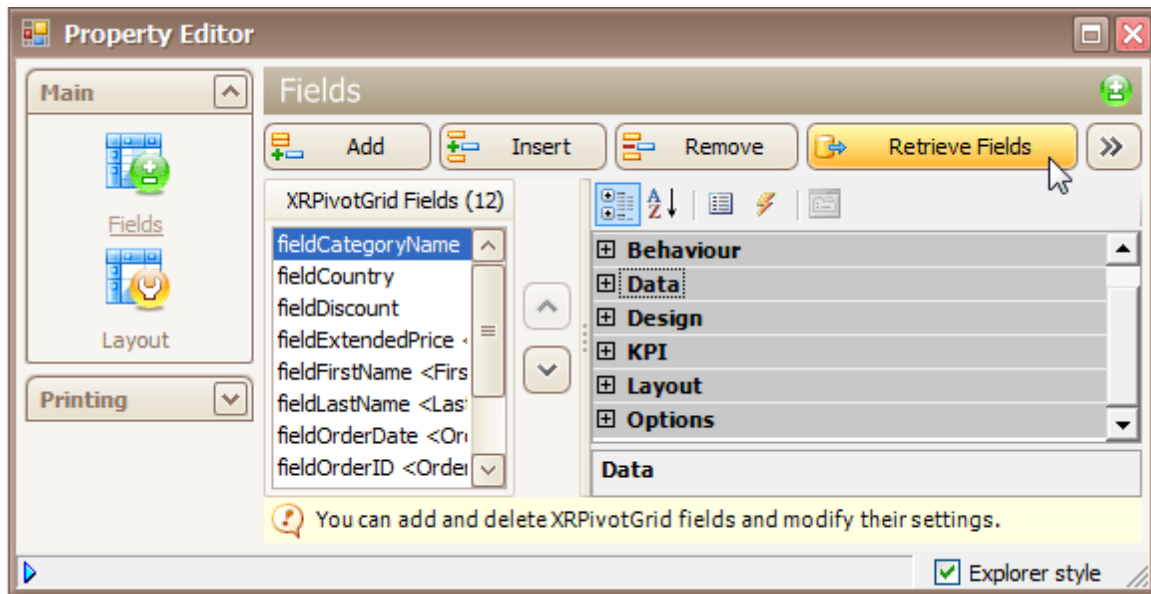
Otherwise, the grid will be blank at the preview and repeated as many times as there are records in the data source.

- 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.

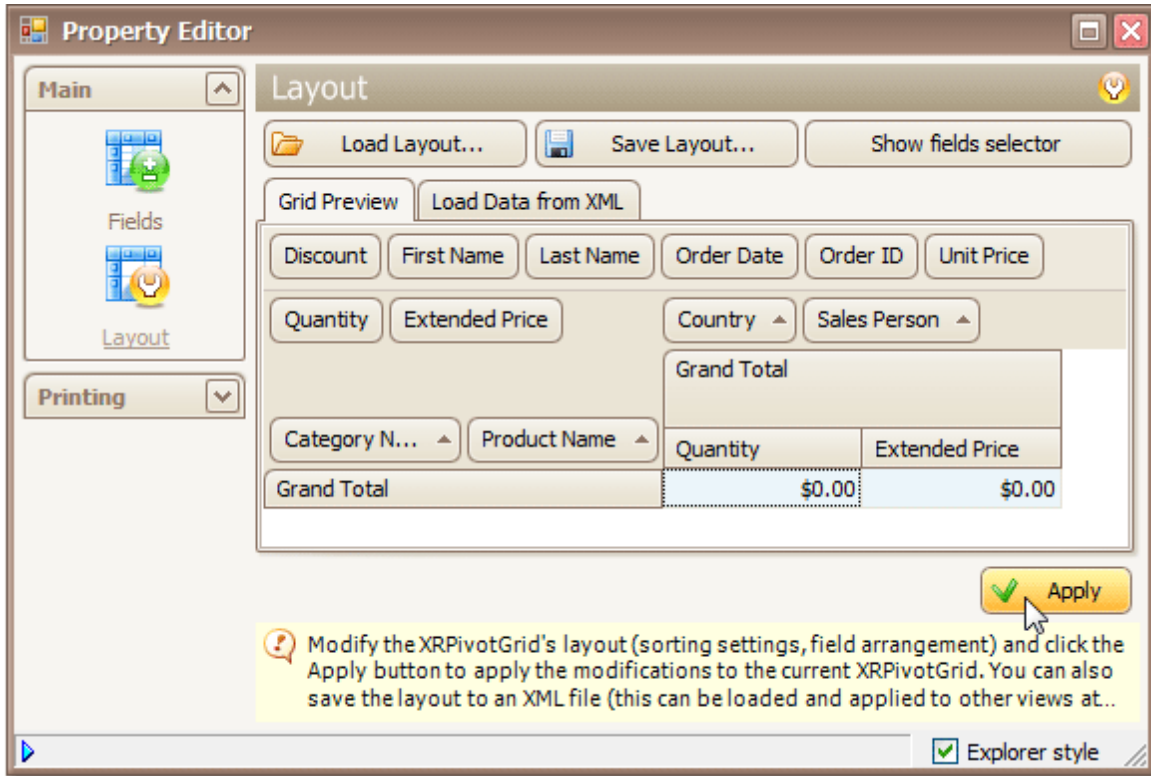


- In the invoked **Property Editor**, click **Retrieve Fields**.



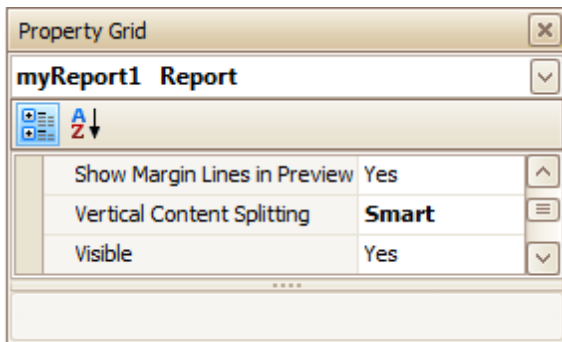
- Then, switch to the **Layout** section in the navigation bar on the left.

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



Click **Apply** and close the editor.

- 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.



The cross-tab report is now ready. Switch to the [Preview Tab](#), and view the result.

Discount	First Name	Last Name	Order Date	Order ID	Unit Price
Quantity	Extended Price		Country	Sales Person	
			UK		
			Anne Dodsworth	Michael Suyama	
Category Name	Product Name	Quantity	Extended Price	Quantity	Extended Price
Beverages	Chai	35	\$544.50	96	\$1,551.60
	Chang	30	\$494.00	110	\$1,805.00
	Chartreuse verte	10	\$180.00	151	\$2,389.50
	Côte de Blaye	57	\$14,624.25		
	Guaraná Fantástica	73	\$276.30	131	\$525.60
	Ipoh Coffee				
	Lakkaikööri	73	\$977.58	55	\$751.50
	Laughing Lumberjack				
	Outback Lager	51	\$744.00	36	\$540.00
	Rhônebräu Klosterbräu	110	\$833.12	129	\$948.60
	Sasquatch Ale	10	\$112.00	30	\$420.00
	Steeleye Stout	70	\$856.80	40	\$518.40
	Beverages Total		519	\$19,642.55	778
Condiments	Aniseed Syrup	74	\$740.00	20	\$180.00
	Chef Anton's Cajun			6	\$132.00
	Chef Anton's Gumbo			4	\$85.40
	Genen Shouyu			12	\$176.70
	Grandma's Boysenb	50	\$1,187.50		
	Gula Malacca	62	\$906.39	70	\$1,087.52
	Louisiana Fiery Ho	40	\$842.00	20	\$421.00
	Louisiana Hot Spic	60	\$693.60		
	Northwoods Cranb	70	\$2,680.00		
	Original Frankfurte	53	\$575.25	63	\$802.75
	Sirop d'érable	4	\$114.00	50	\$1,368.00
	Vegie-spread	80	\$2,386.80	9	\$395.10
	Condiments Total		493	\$10,125.54	254

See Also

[Master-Detail Report \(Detail Report Bands\)](#)

Parameterized Report

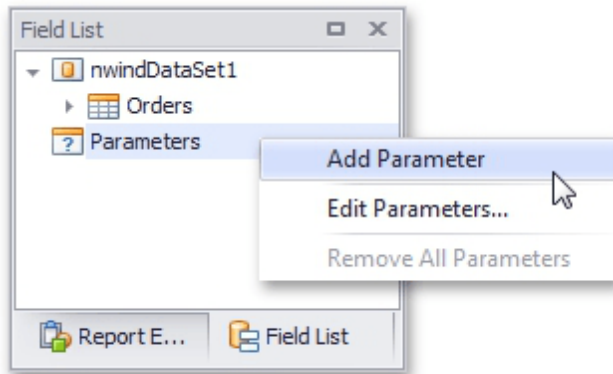
[Interface Element List for Windows Forms](#) > [Report Designer](#) > [Create Reports](#) > [Report Types](#) > [Parameterized Report](#)

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

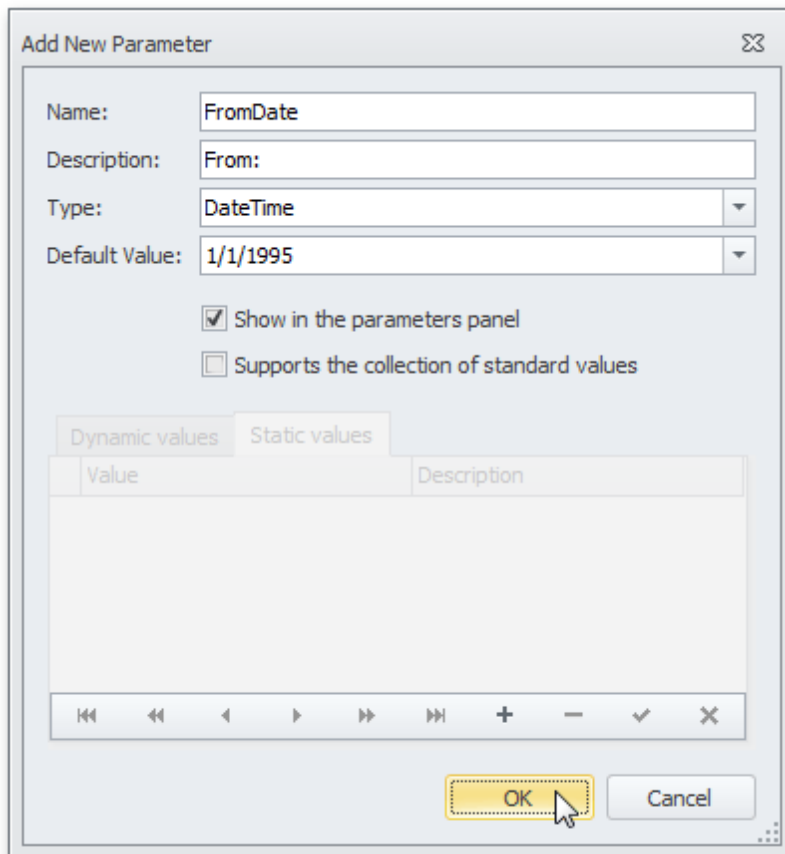
First, [create a report](#) and [bind it to a data source](#).

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

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



2. In the invoked window for the created parameter, set its **Name** and **Description**. And, make sure to set its **Type** to an appropriate value.



Note

In Print Preview, the report's document is not generated until you have submitted values of all the

parameters that have the **Show in the parameters panel** option switched on via the **Parameters** UI.

3. Enabling the **Supports the collection of standard values** option of the parameter allows end-users to modify its value and also activates the **Dynamic values** and the **Static values** tabs of the window:
 - On the **Dynamic values** tab, you can specify a parameter's data source, data adapter and data member. The value member defines a data field that provides values to the parameter. The display member defines a data field that provides display names for parameter values (how these values appear in the user interface available in a Print Preview).
 - On the **Static values** tab, you can manually fill the list of parameter values, with each value having an individual description (specifying how this value appears in the **Parameters** panel).

Add New Parameter

Name:

Description:

Type:

Default Value:

Show in the parameters panel

Supports the collection of standard values

Dynamic values | Static values

Value	Description
1/1/1995	January 1, 1995
4/1/1995	April 1, 1995
▶ 8/1/1995	August 1, 1995

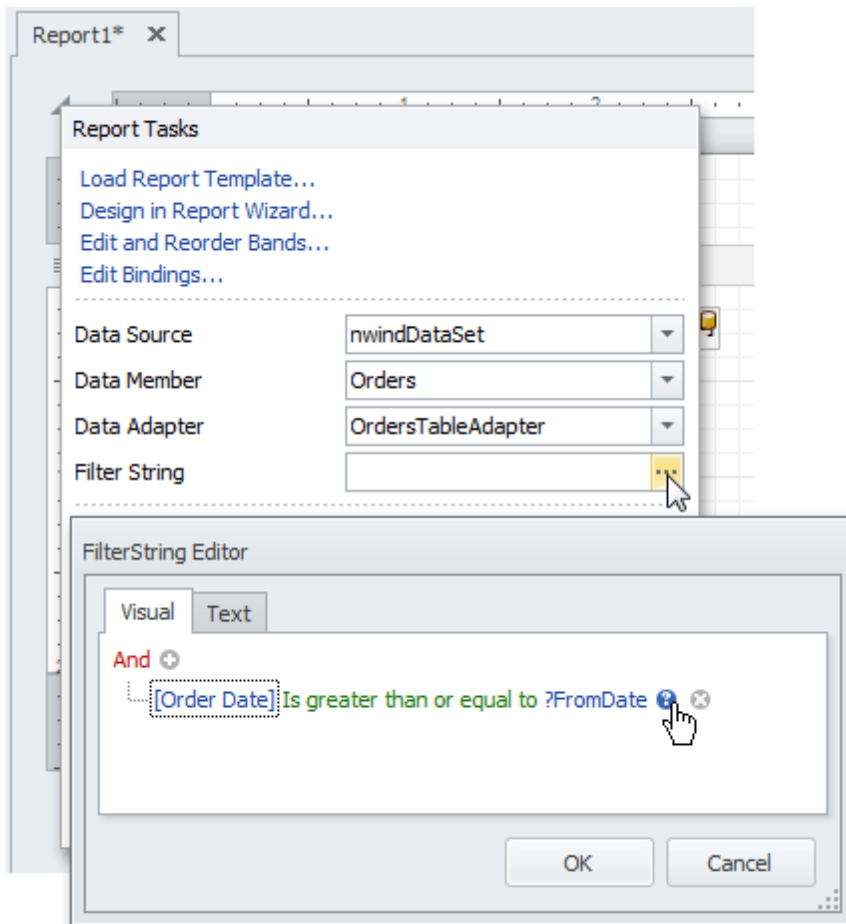
Navigation icons: ⏪ ⏩ ⏴ ⏵ ⏶ ⏷ ⏸ ⏹

OK Cancel

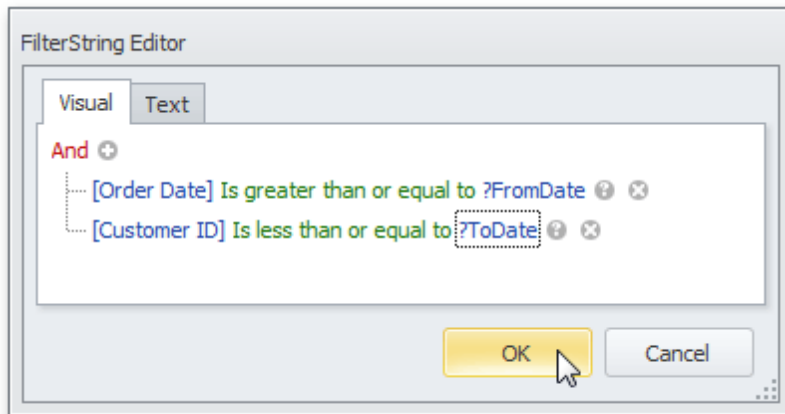
Then, repeat the previous steps to create the second parameter, so that every time your report is previewed, you will be asked to specify two dates.

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

4. Click your report's [Smart Tag](#), 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.



The complete filtering expression will then look like this.



The parameterized report is now ready. Switch to the [Preview Tab](#), and in the **Parameters** section, define the required values and click **Submit**.

The screenshot shows the Report Designer interface for a report named 'Report1*'. The 'Parameters' pane on the left shows a date range from 'April 1, 1995' to '12/31/1995'. A calendar for December 1995 is open, with the 31st selected. The main report area displays a table with columns for date, ID, country, and price.

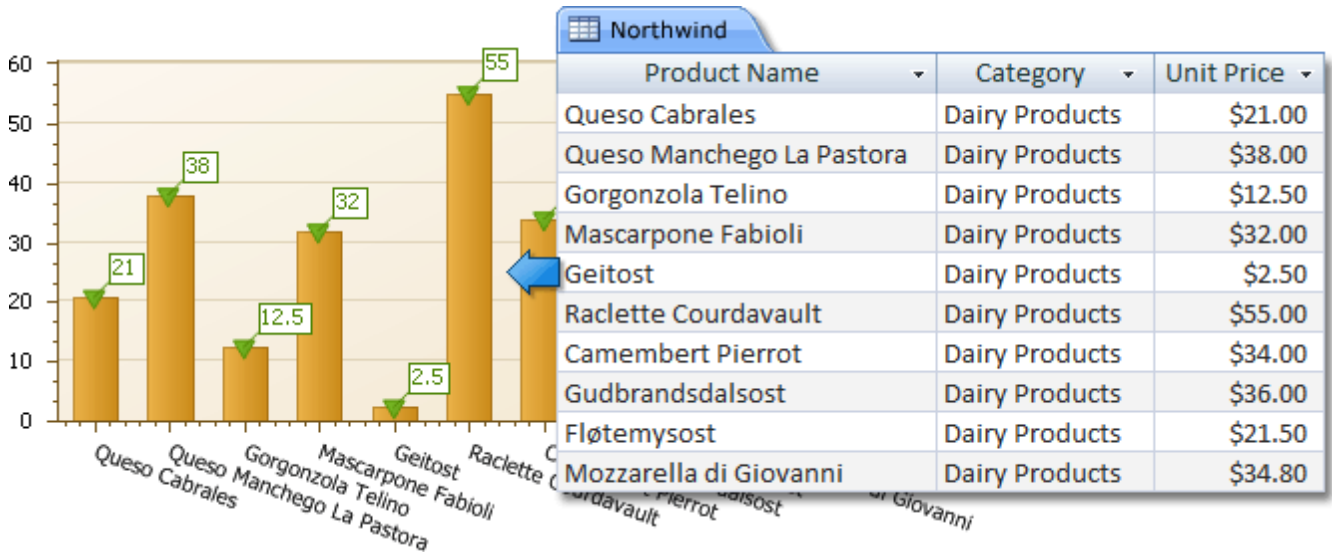
Date	ID	Country	Price
3/1995	10462	UK	\$6.17
4/1995	10463	Belgium	\$14.78
4/1995	10464	Portugal	\$89.00
5/1995	10465	Denmark	\$145.04
6/1995	10466	Brazil	\$11.93
6/1995	10467	Italy	\$4.93
4/7/1995	10468	Germany	\$44.12
4/10/1995	10469	USA	\$60.18

Chart with Static Series

[Interface Element List for Windows Forms](#) > [Report Designer](#) > [Create Reports](#) > [Report Types](#) > [Chart with Static Series](#)

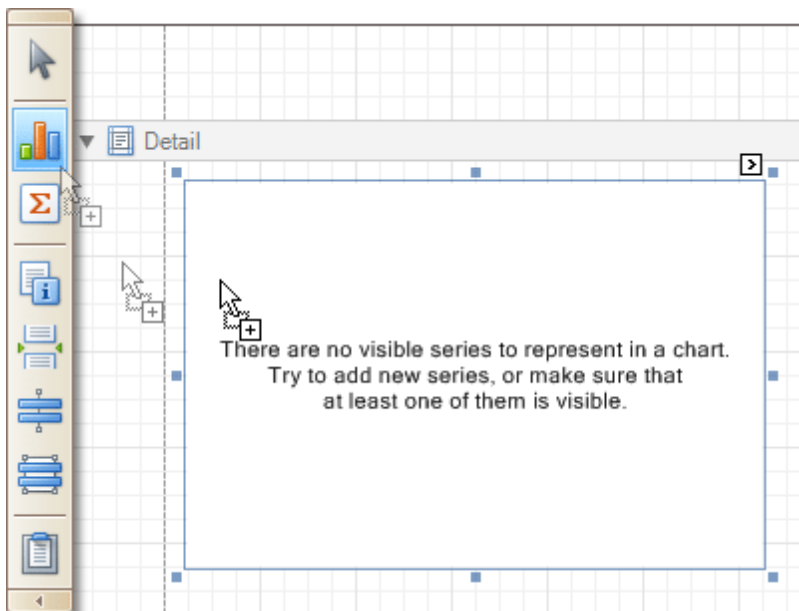
This document describes how to create a report with a [Chart](#) control bound to data, so that a particular *series* has its own *data source*, and other settings. To simplify the example, both series obtain their data from the same data source. However, different data sources can be used for different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

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



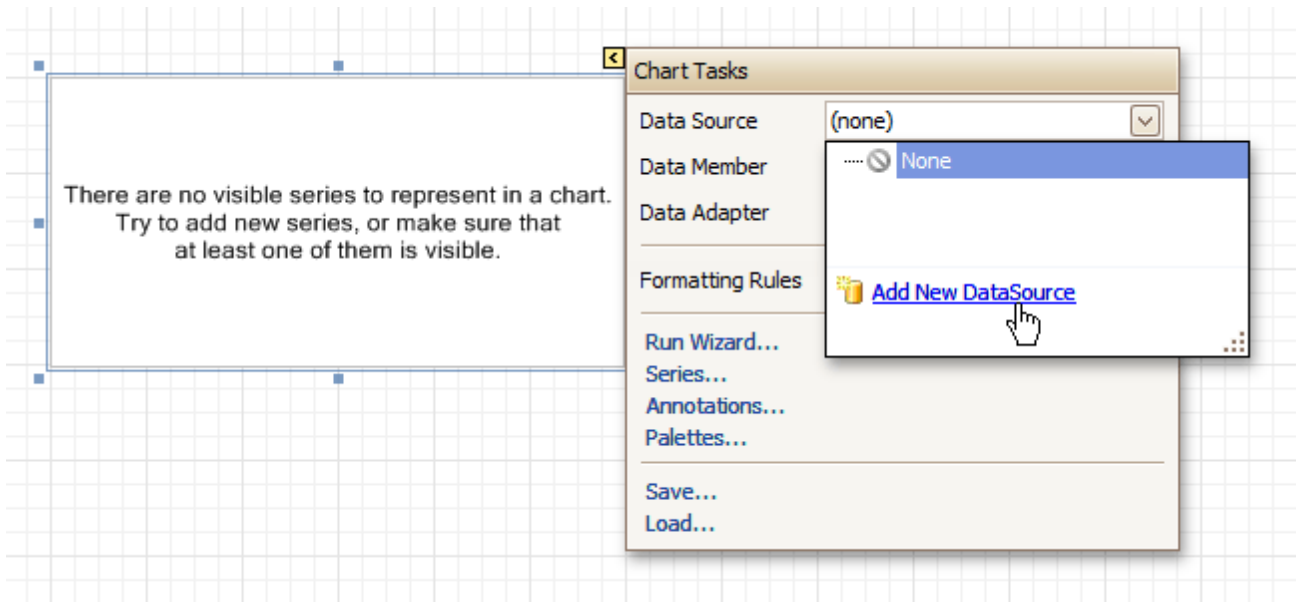
To adjust a Chart by manually creating its series, do the following.

1. [Create a new report](#).
2. Drop the [Chart](#) control from the [Toolbox](#) onto the report's [Detail band](#).



Note that after you drop the Chart, the [Chart Wizard](#) 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 [Smart Tag](#). In the invoked actions list, expand the **Data Source** drop-down selector, and click **Add New DataSource**.



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 [Bind a Report to Data](#), as this process is similar.

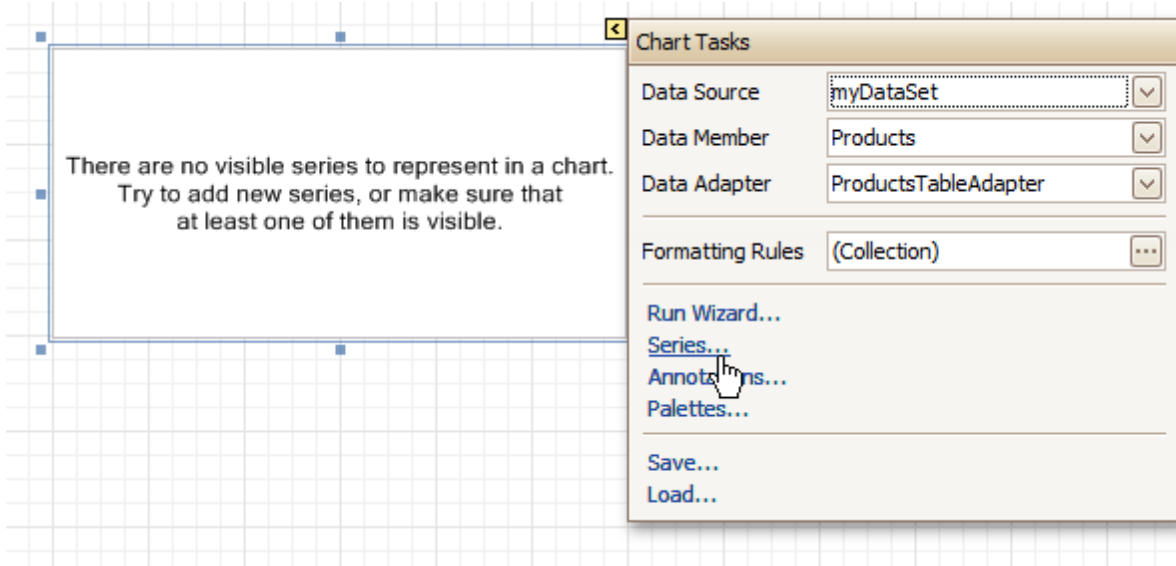
Note

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

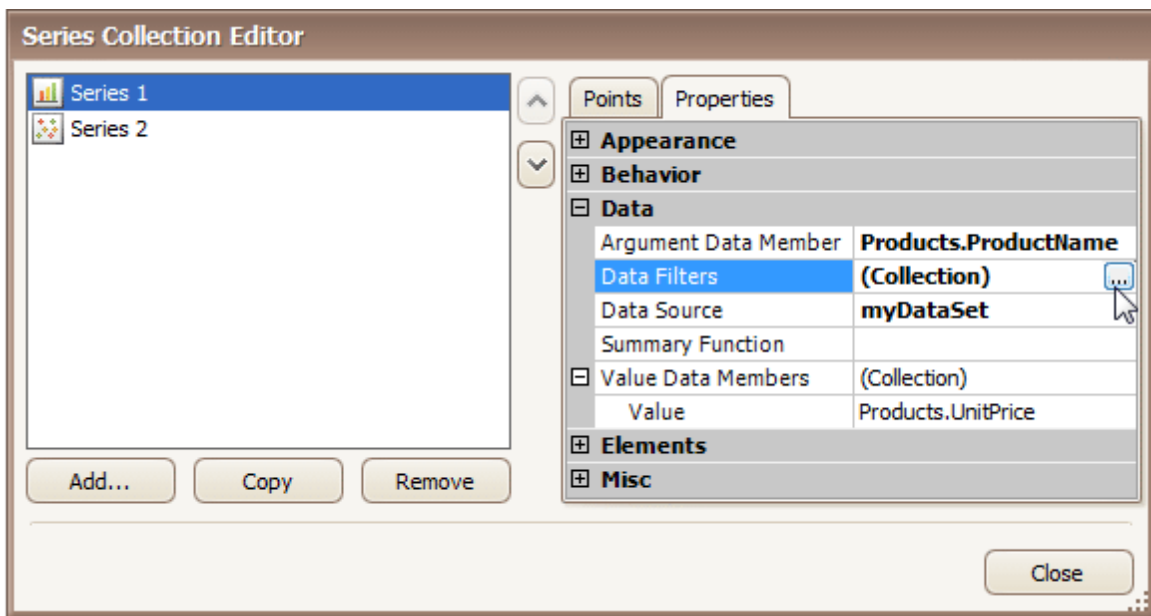
Otherwise, the Chart will be blank when previewed, and repeated as many times as there are records in the data source.

- 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.

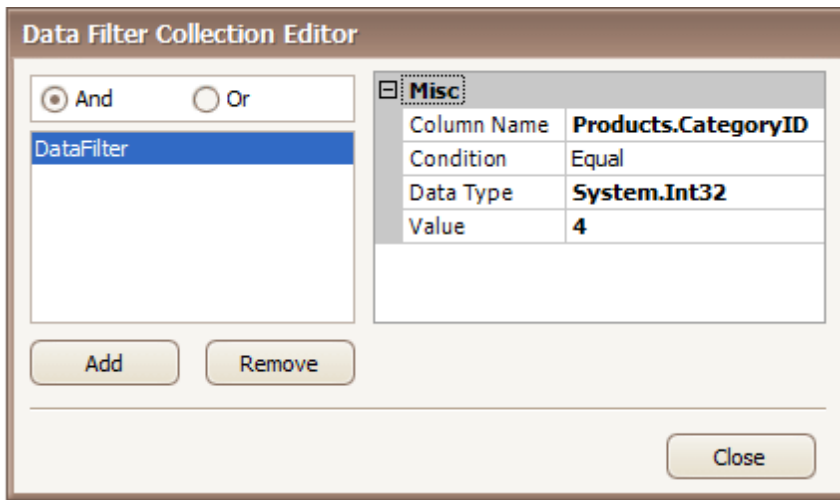
So once again, click the Chart's Smart Tag, and in the invoked actions list, click the **Series...** link.



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.



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.



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

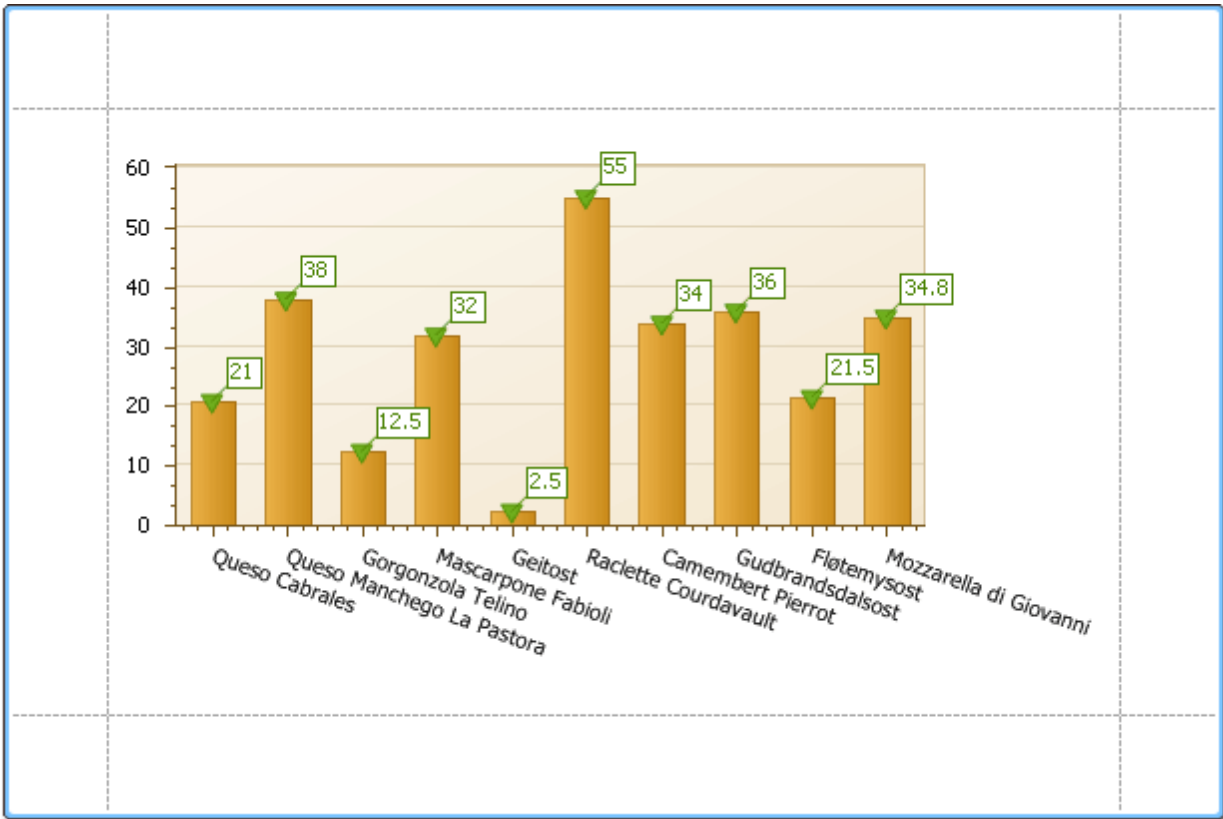
Then, back in the **Series Collection Editor**, click **Copy**, to create a similar series, but change its **View** to **Point**.

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 [Property Grid](#), 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.

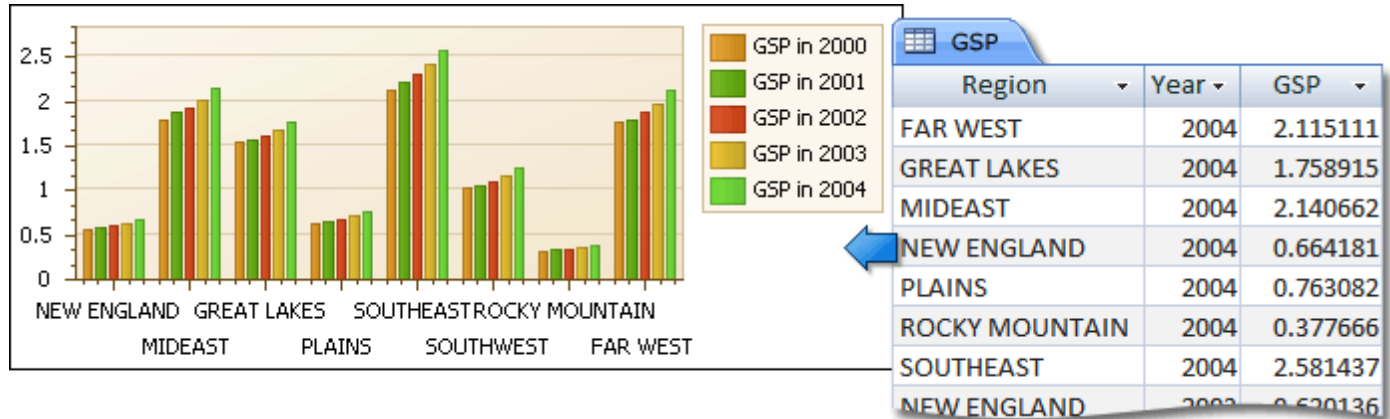


See Also
[Chart with Dynamic Series](#)

Chart with Dynamic Series

[Interface Element List for Windows Forms](#) > [Report Designer](#) > [Create Reports](#) > [Report Types](#) > [Chart with Dynamic Series](#)

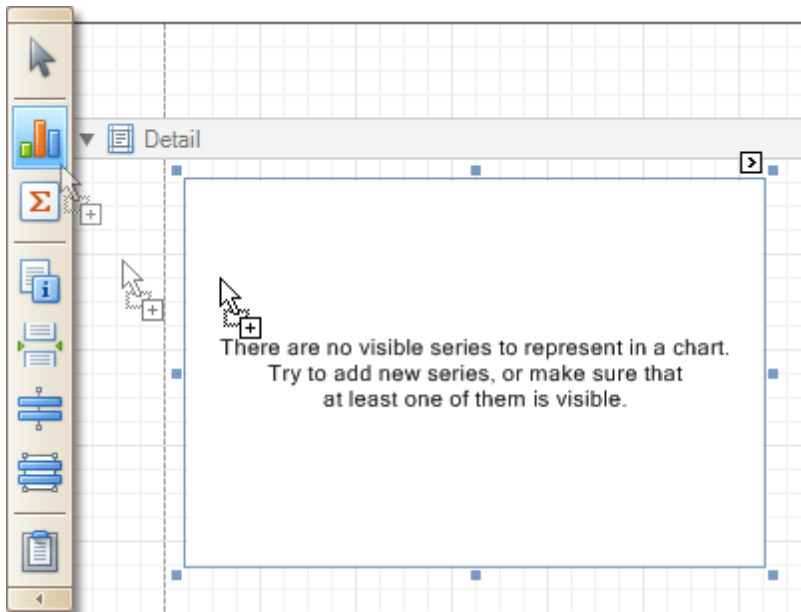
This document describes how to create a report with a [Chart](#) control bound to data, so that all series are auto-created based on a common *template*, which specifies universal options for all series. This is possible when the data for all series (their names, along with points' arguments and values) 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.

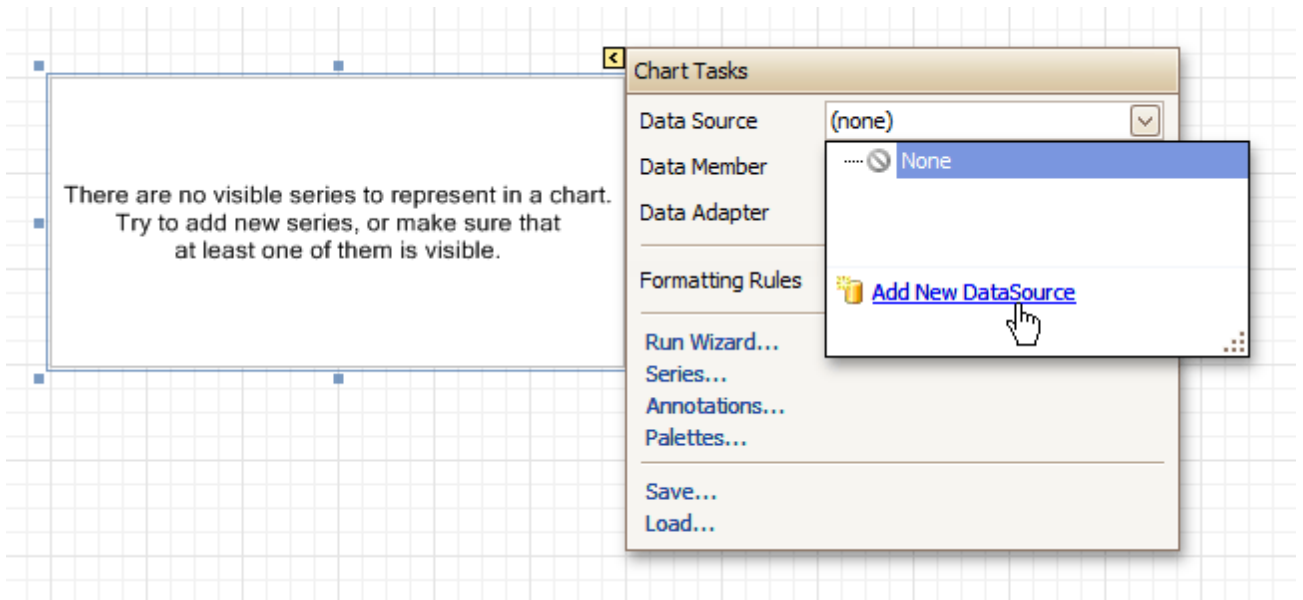
To adjust a Chart with automatically created series, do the following.

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 [Chart Wizard](#) 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 [Smart Tag](#). In the invoked actions list, expand the **Data Source** drop-down selector, and click **Add New DataSource**.



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 [Bind a Report to Data](#), as this process is similar.

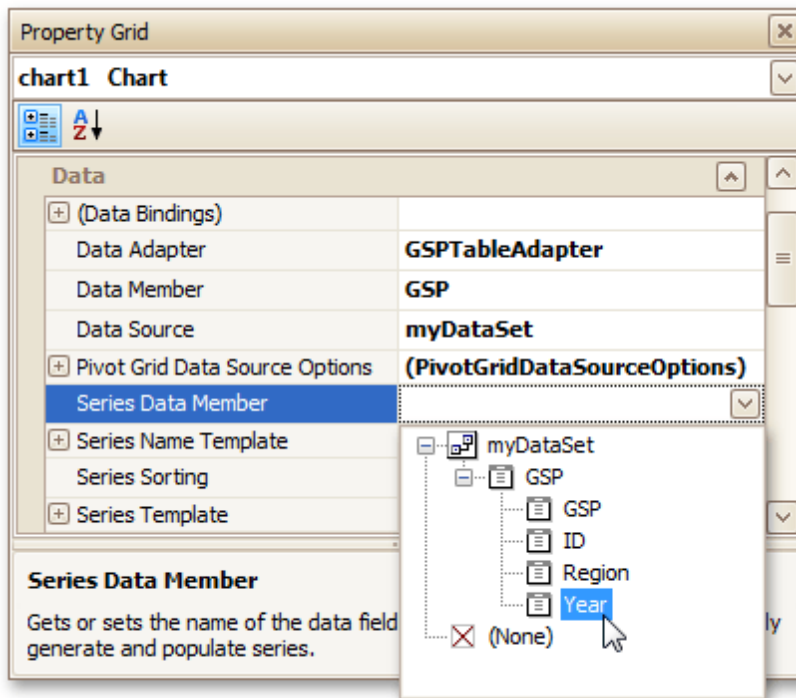
Note

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

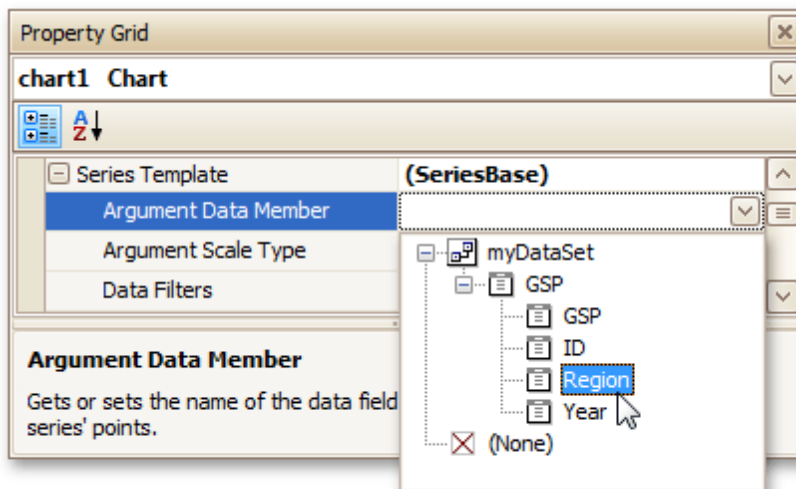
Otherwise, the Chart will be blank when previewed, and repeated as many times as there are records in the data source.

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.

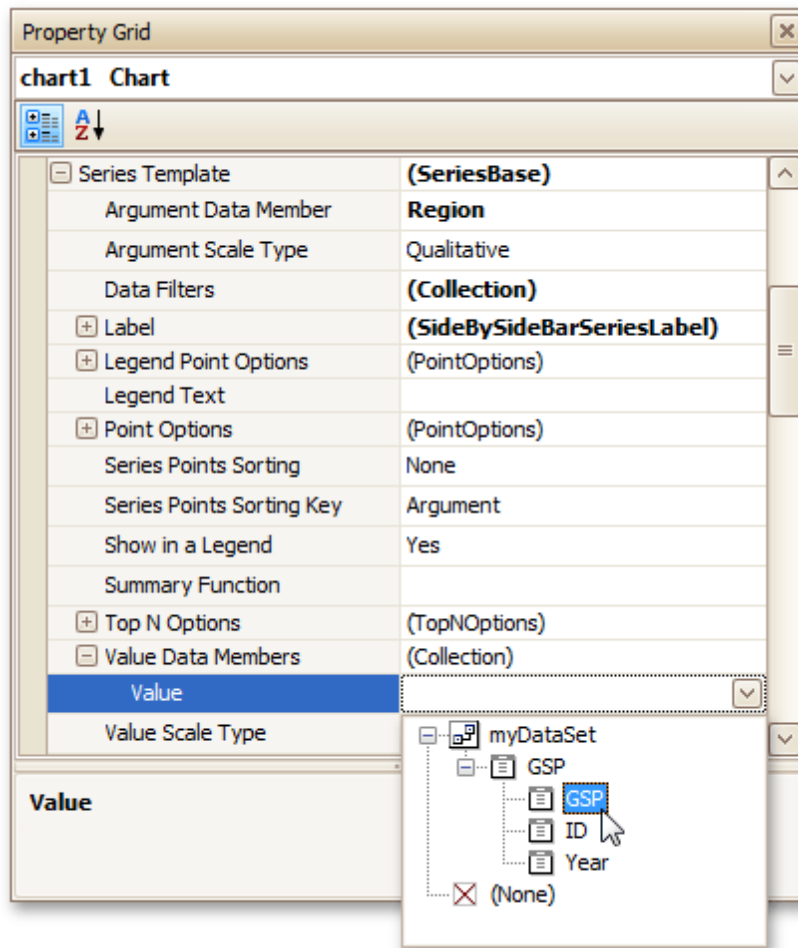


5. Then, adjust the series template which is accessed via the chart's **Series Template** property. First, set the **Argument Data Member** (which specifies from where the data for points' *arguments* is obtained).



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.



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

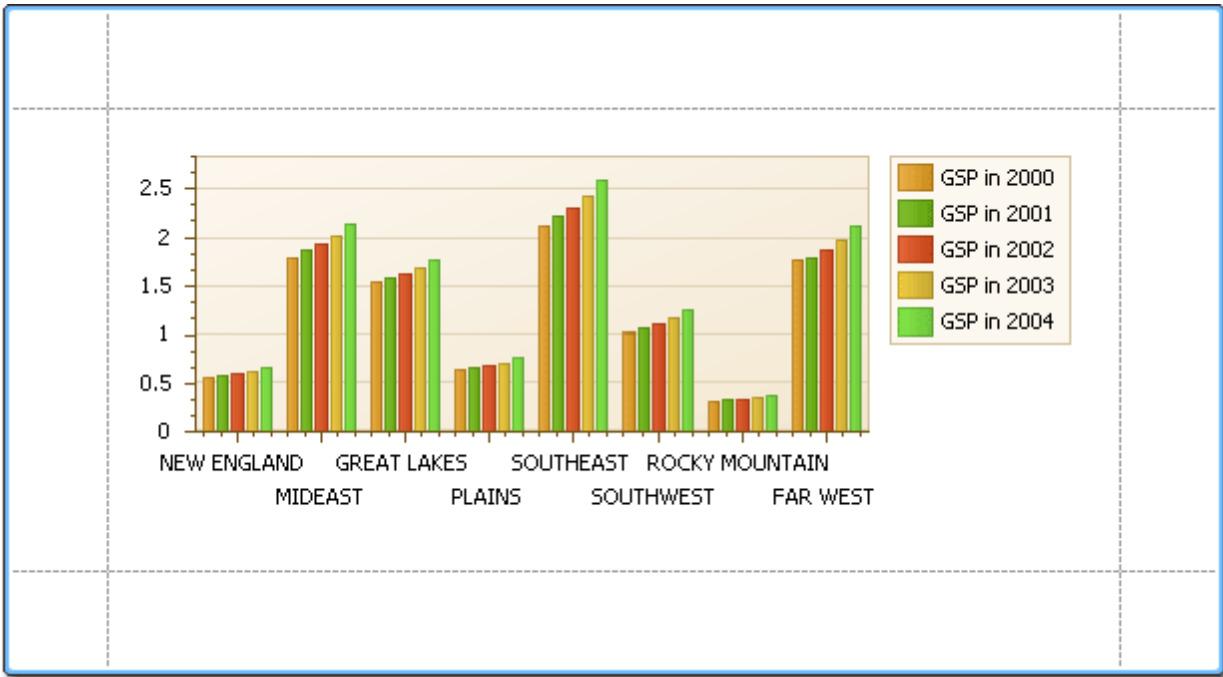
By default, the name for every auto-created series is obtained directly from an appropriate data field in the bound data source. However, you can add some text to the beginning or to the end of every series name, via the **Series Name Template** property. For instance, here we set the **Begin Text**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

- Customize 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

[Interface Element List for Windows Forms](#) > [Report Designer](#) > [Create Reports](#) > [Styles and Conditional Formatting in Reports](#)

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

This section consists of the following topics.

- [Understanding Style Concepts](#)
- [Use Odd and Even Styles](#)
- [Store and Restore Style Sheets](#)
- [Conditionally Change a Control's Appearance](#)
- [Conditionally Hide Bands](#)
- [Conditionally Change a Label's Text](#)

Understanding Style Concepts

[Interface Element List for Windows Forms](#) > [Report Designer](#) > [Create Reports](#) > [Styles and Conditional Formatting in Reports](#) > [Understanding Style Concepts](#)

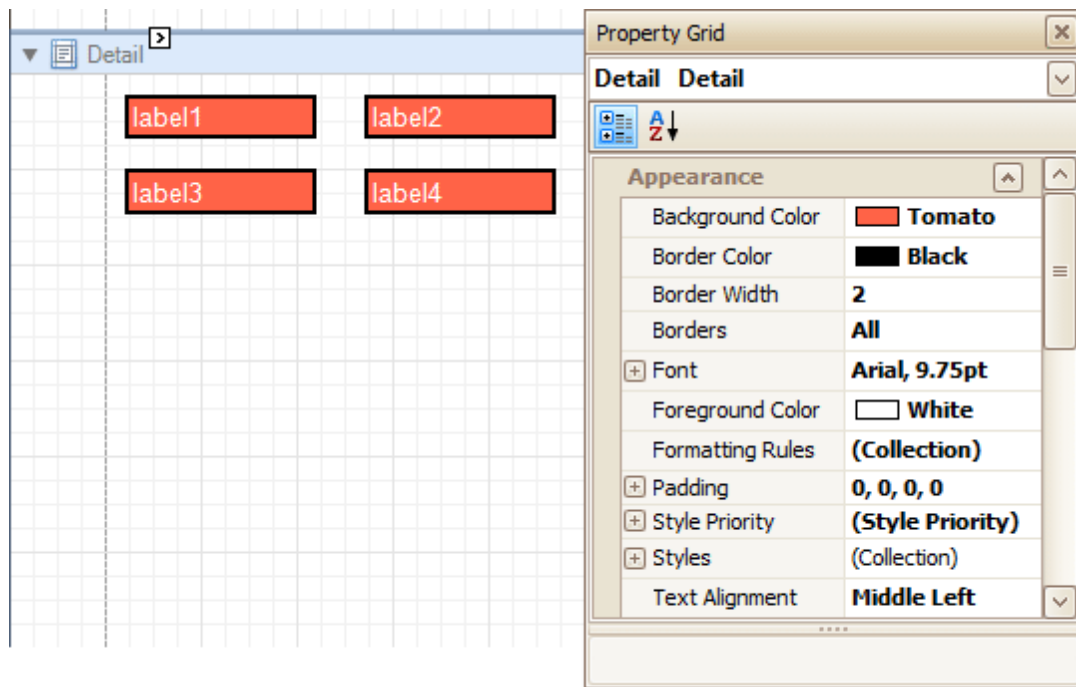
This document describes how you can provide a professional look to your reports, by effectively adjusting the appearance of its elements.

This document consists of the following sections.

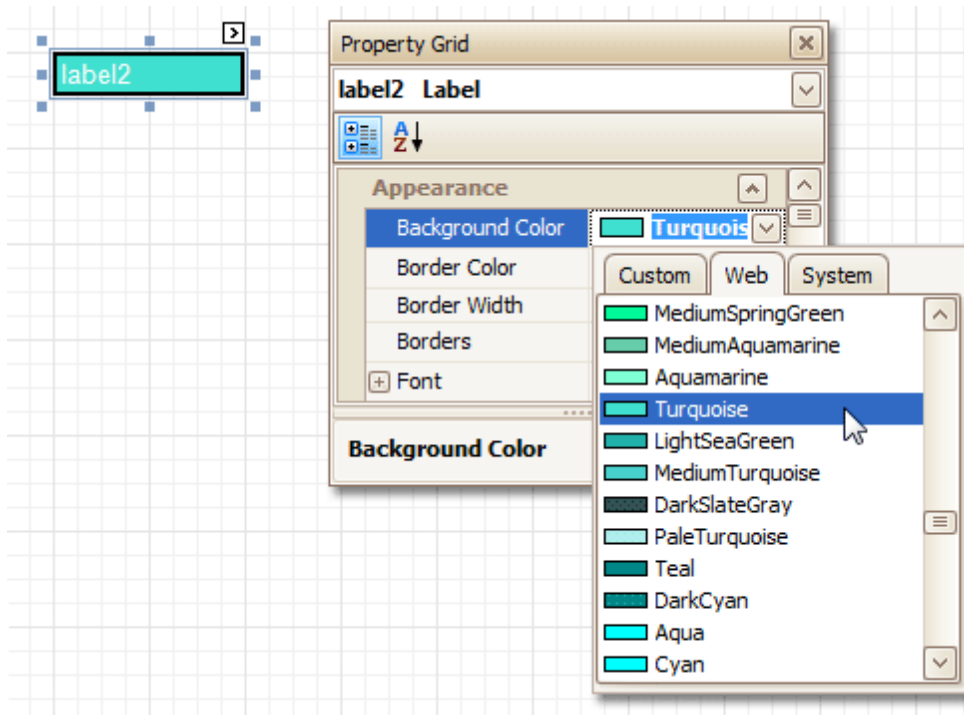
- [The Appearance Properties](#)
- [Styles Priority and Inheritance](#)

The Appearance Properties

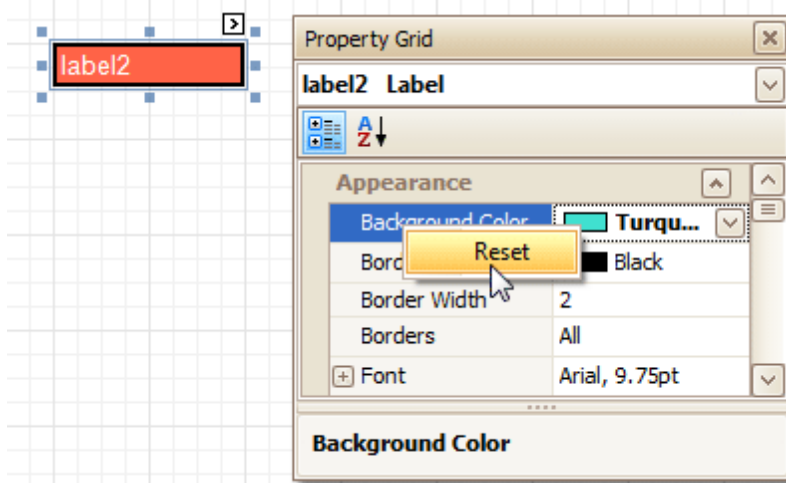
In the Report Designer, a [report](#) and each of its elements ([bands](#) and [controls](#)) has a complete set of appearance options (such as **Background Color**, **Borders**, **Font**, **Foreground Color**, **Text Alignment**, etc.). By default, these properties aren't specified, meaning that their 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.



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



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



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.

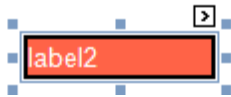
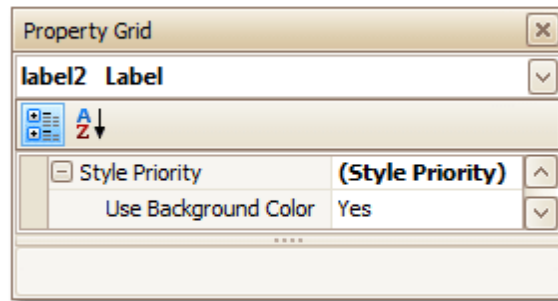
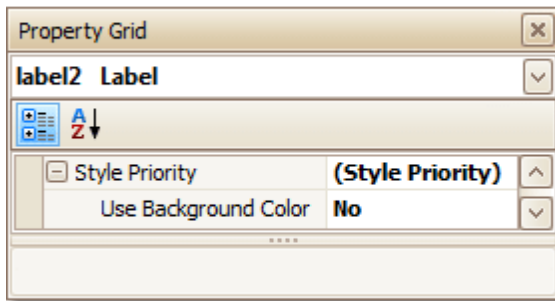
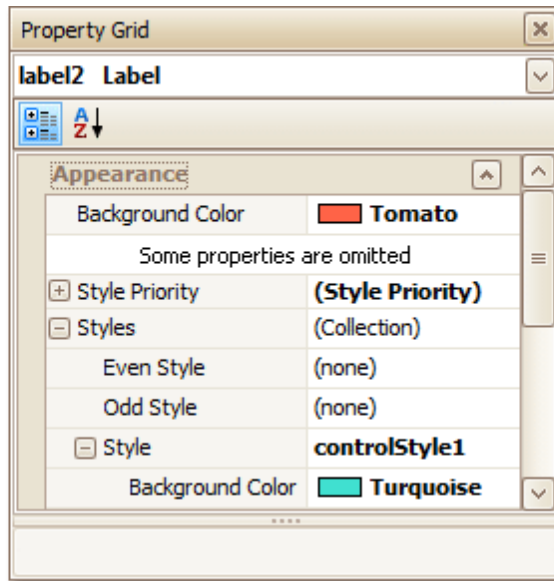
- to save them to external files (with REPSS extension), and then load them to a report via its **Style Sheet Path** property (this is described at [Store and Restore Style Sheets](#));
- to store the styles within the report, so that they can be easily accessed via its **Style Sheet** property.

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.



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](#).

Note

When [conditional formatting](#) 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](#)

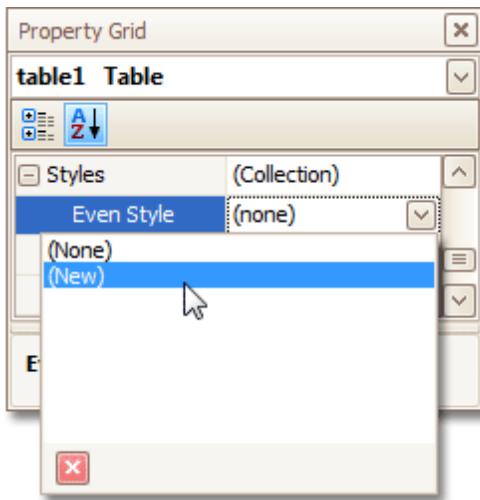
Use Odd and Even Styles

[Interface Element List for Windows Forms](#) > [Report Designer](#) > [Create Reports](#) > [Styles and Conditional Formatting in Reports](#) > [Use Odd and Even Styles](#)

This tutorial describes how to apply *odd and even styles* to [report controls](#), e.g. to alternate the background color for each record.

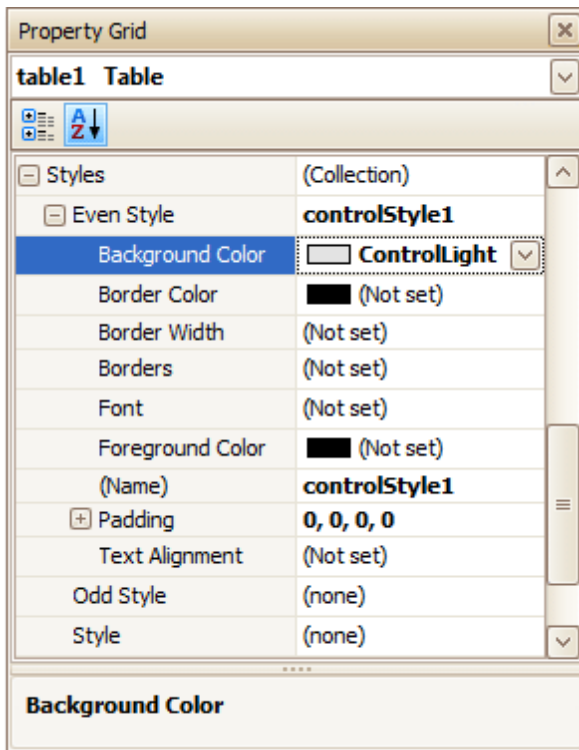
To utilize odd and even styles, do the following.

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



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**.



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

[Understanding Style Concepts](#)
[Store and Restore Style Sheets](#)
[Conditionally Change a Control's Appearance](#)

Store and Restore Style Sheets

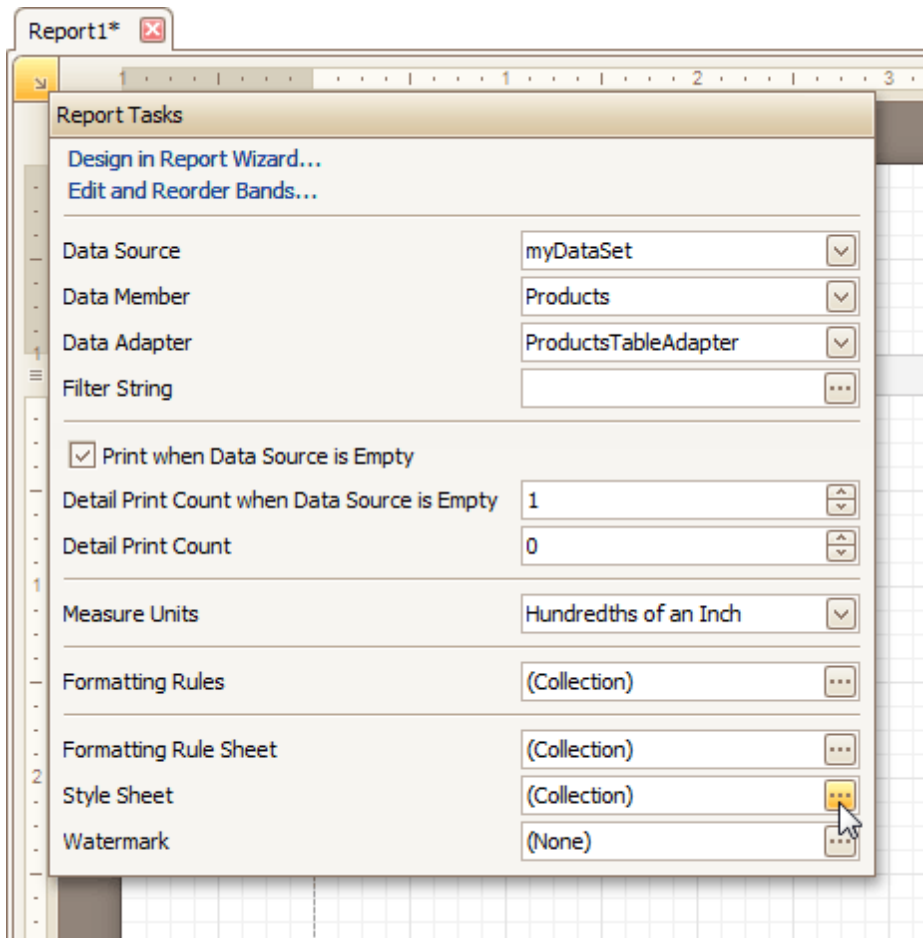
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This tutorial describes how you can save a report's style sheet into an external file, and then load it back to the report.

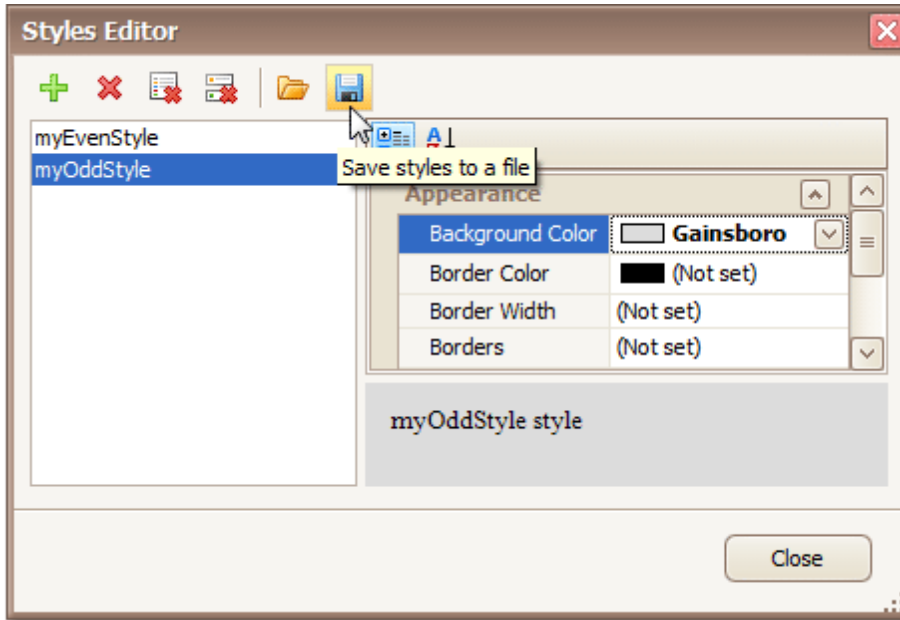
You can store a report's style sheet (containing all the report's styles) in an external REPSS file. This makes it possible to easily restore a report's appearance from this file. For general information, refer to [Understanding Style Concepts](#).

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 [Smart Tag](#), and in the invoked actions list, click the ellipsis button for the **Style Sheet** property.



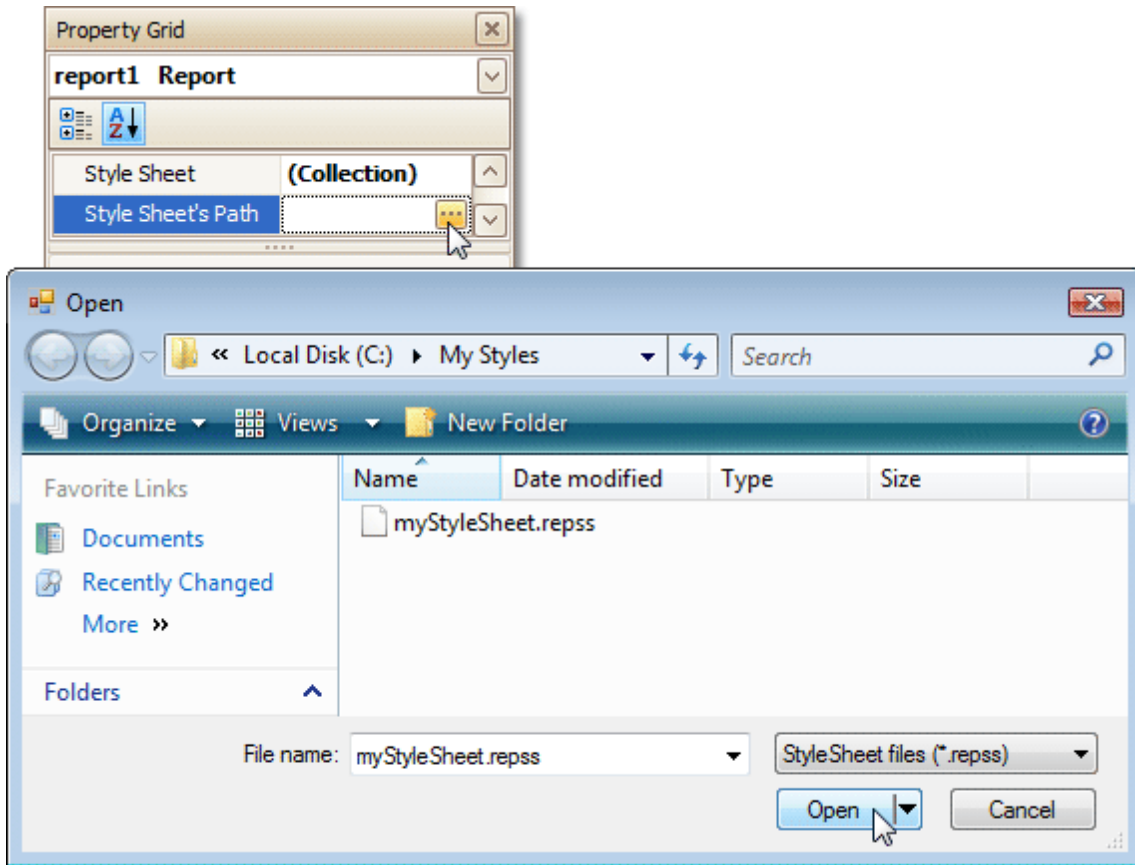
3. In the invoked **Styles Editor**, use the **+** button, to create new styles. For them, specify the desired options (e.g. **Background Color**), and click the **Save** button.



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 **X** button, and close the dialog.

5. Select the report, and in the [Property Grid](#), click its ellipsis button for the **Style Sheet Path** property. In the invoked **Open File** dialog, load the created REPSS file.



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.