Table of Contents

Interface Elements for Windows (Home Page)

Interface Elements for Windows

This documentaion provides information on individual User Interface Elements such as grids, navigation panes, data editors, etc. Each element can provide context menus, allow numerous mouse operations and support a number of keyboard shortcuts.

To obtain information about these features, browse through the table of contents to locate the element you are interested in.

- Charting
- Editors
- Expression Editor
- Filter Editor
- Grid
- Layout Manager
- Navigation Bars
- Pivot Table
- Print Preview
- Report Designer
- Ribbon
- Rich Text Editor
- Scheduler
- Toolbars and Menus
- Tree List
- Vertical Grid

Charting

This section describes the capabilities provided by Charts.
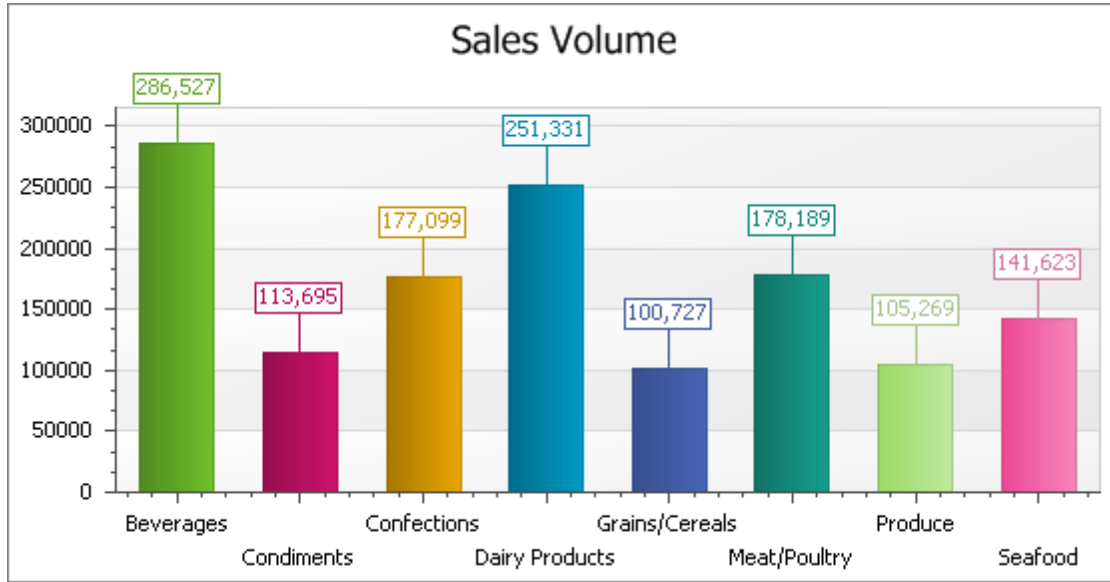
Topics in this section:

- Chart Wizard
- Select Chart Elements
- Zoom a Chart
- Scroll a Chart
- Rotate a Chart

Chart Wizard

Use the chart wizard dialog to quickly and easily create a new chart, or modify an existing one.
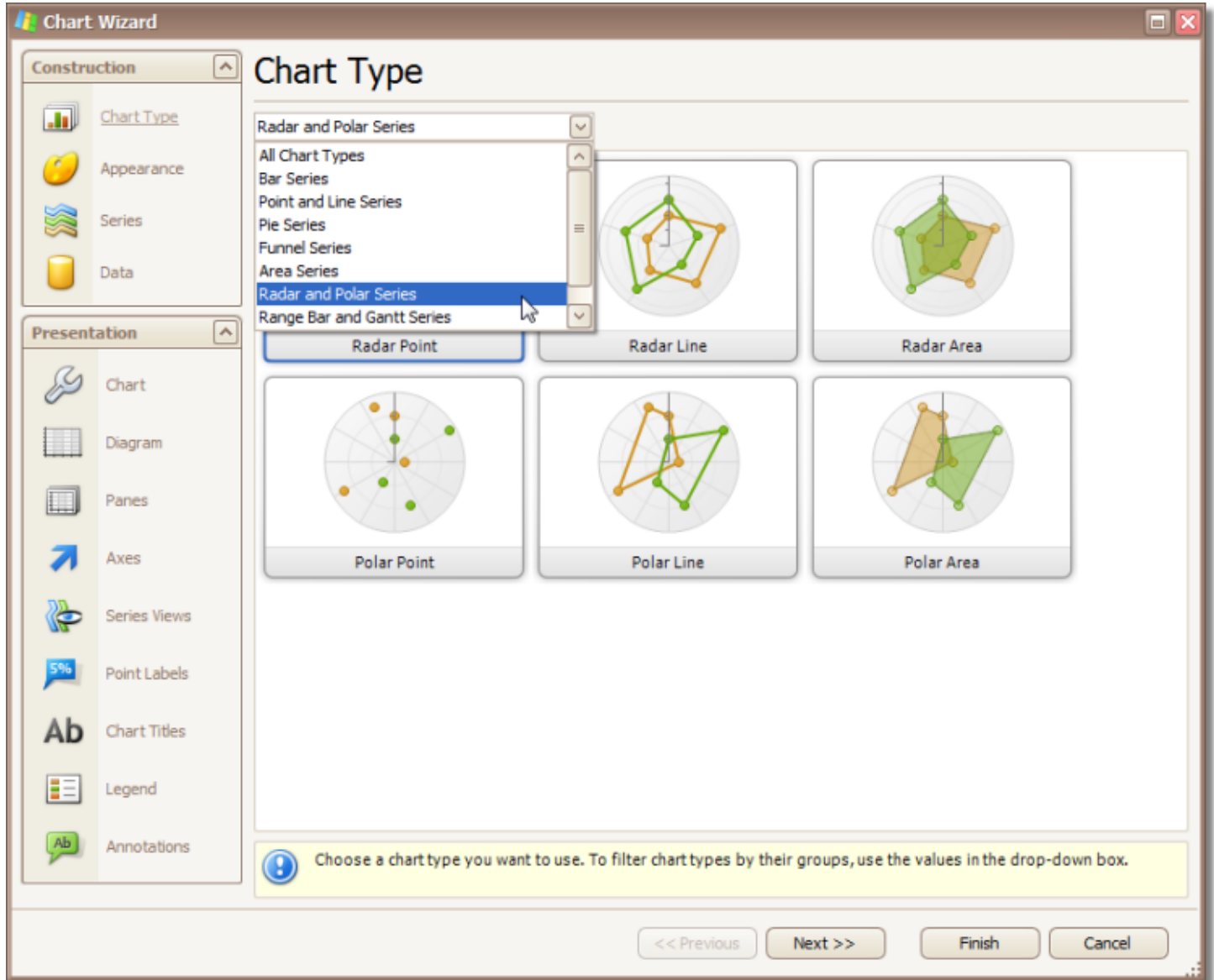
The Chart Wizard contains the following pages.
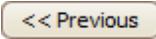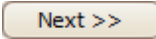
Construction group
- Chart Type Page
- Appearance Page
- Series Page
- Data Page

Presentation group
- Chart Page
- Diagram Page
- Panes Page
- Axes Page
- Series Views Page

- [Point Labels Page](#)
- [Chart Titles Page](#)
- [Legend Page](#)
- [Annotations Page](#)

To navigate through the Chart Wizard's pages, use the navigation bar or ⟨⟨ Previous⟩ and ⟨Next >>⟩ buttons.
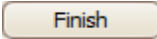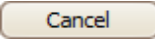
To complete the chart, use the ⟨Finish⟩ button, and the ⟨Cancel⟩ button, to cancel all changes.

Chart Type Page

Tasks

- Choose a chart type.

Page Elements
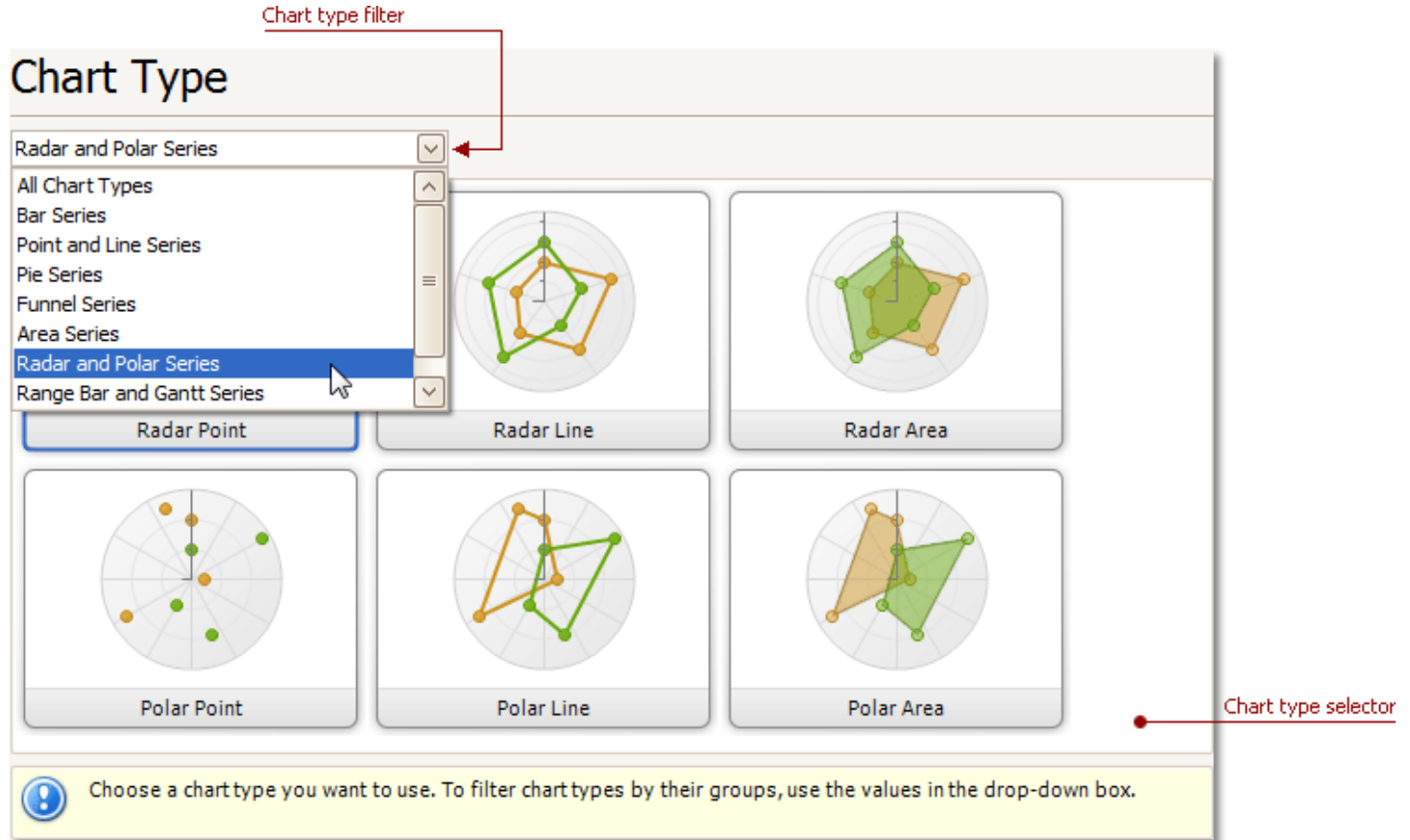
Chart type selector
Contains icons representing chart types. Click an icon to choose the appropriate chart type.

Chart type filter
Filters chart types available in the **Chart type selector**. The following chart filters are available:

- **All Chart Types**.
- **Bar Series** (Bar, Stacked Bar, 100% Stacked Bar, 3D Bar, 3D Stacked Bar, 3D 100% Stacked Bar and Manhattan Bar).
- **Point and Line Series** (Point, Bubble, Line, Scatter Line, Swift Plot, Step Line, Spline, 3D Line, 3D Step Line and 3D Spline).
- **Pie Series** (Pie, Doughnut, 3D Pie and 3D Doughnut).
- **Funnel Series** (Funnel and 3D Funnel).
- **Area Series** (Area, Stacked Area, 100% Stacked Area, Spline Area, Spline Area Stacked, 100% Stacked Spline Area, 3D Area, 3D Stacked Area, 3D 100% Stacked Area, 3D Spline Area, 3D Spline Stacked Area and 3D 100% Stacked Spline Area).
- **Radar and Polar Series** (Radar Point, Radar Line, Radar Area, Polar Point, Polar Line and Polar Area).
- **Range Bar and Gantt Series** (Range Bar, Side by Side Range Bar, Gantt and Side by Side Gantt).
- **Financial Series** (Stock and Candle Stick).

Appearance Page

Tasks

- Choose a palette to color a series.
- Choose the style specifying the chart's appearance.

Page Elements

Chart preview area
Previews a chart's layout.

Palette Editor
Specifies a palette to color a series.
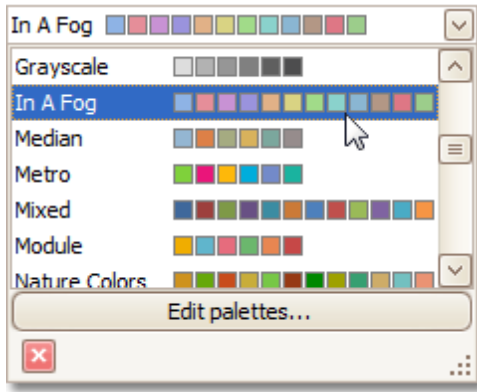
Style Editor
Specifies the style determining the chart's appearance, depending on the selected palette.
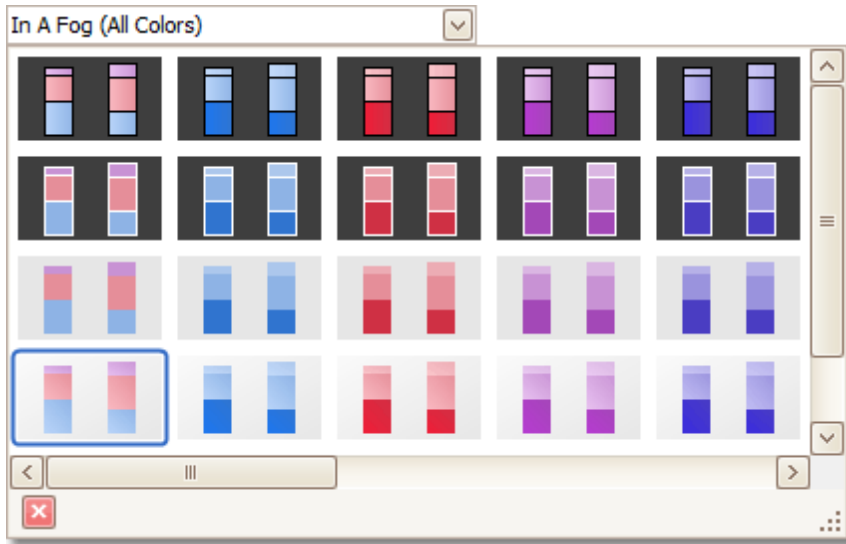
Series Page

Tasks

- Create or remove a series of points.
- Define the series name, visibility and view type.
- Customize additional series options, point and legend point options.
- Enable and customize the Top N Values feature.

Page Elements

Series list

This list displays all available series. You can click list entries to access properties of the corresponding series. To switch between series, use the ☐ and ☐ buttons.

Series management buttons

Use the **Add**, **Copy** and **Remove** buttons to manage the series collection.

Main series properties
Choose whether the selected series should be visible, define its name, and select a view type.

Options tabs
The following tabs are available on this page:

- **Series Options**
  Specifies argument and value scale types, point sort order, visibility in legend and legend text.
- **Top N Options**
  Specifies whether the Top N Values feature is enabled, and allows you to control this feature's options.
- **Point Options**
  Specifies the format of values displayed in chart labels.
- **Legend Point Options**
  Specifies the format of values displayed in the chart legend.
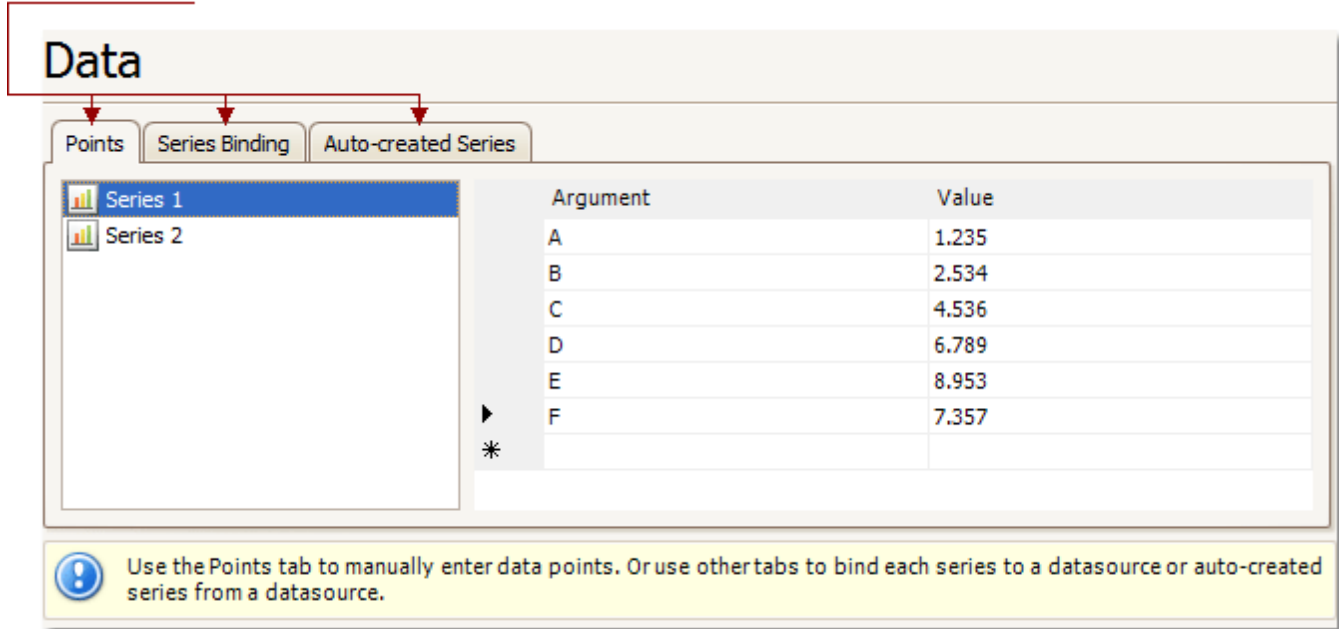
Data Page

Tasks

- Provide data for a chart;
- Bind a chart or individual series to a data source;
- Customize an argument and a value scale type;
- Customize the view type of auto-generated series;
- Apply data filtering and sorting;
- Adjust the Pivot Chart settings.

Page Elements

You can provide data for a chart using the following tabs.

- Points tab
- Series Binding tab
- Auto-created Series tab

Points Tab

Use it to manually enter data points for series.
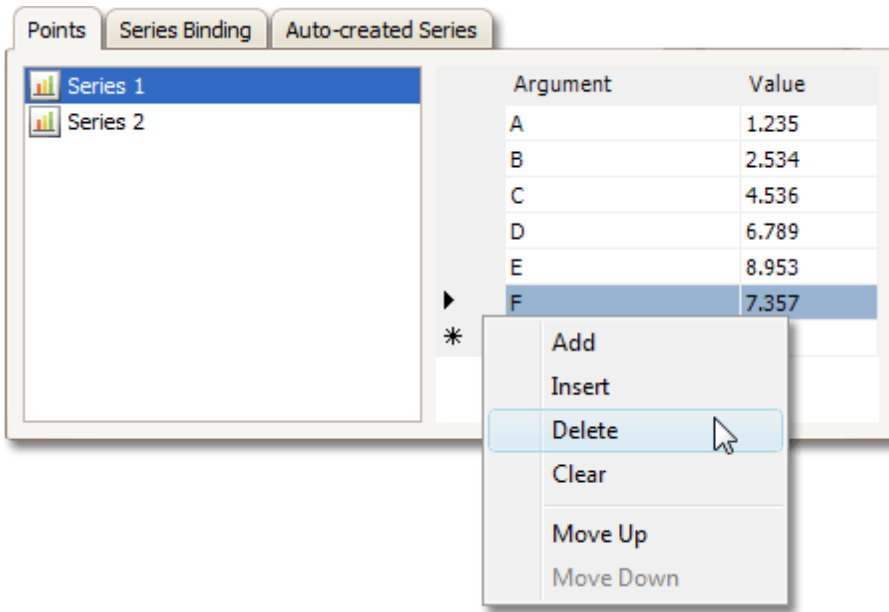
Note that valid **Argument** and **Value** entries must correspond to the **Argument scale type** and the **Value scale type** selected for the appropriate series on the Series Page. Otherwise, an error message will be invoked.

Series Binding Tab

Use it to provide specific data binding options for each series.
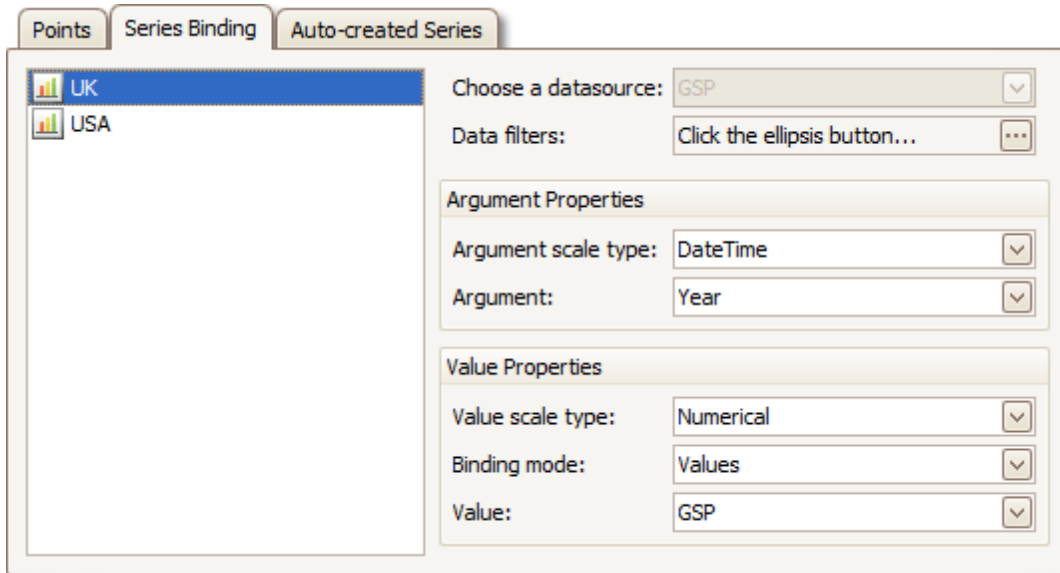
The following illustration demonstrates how it works.
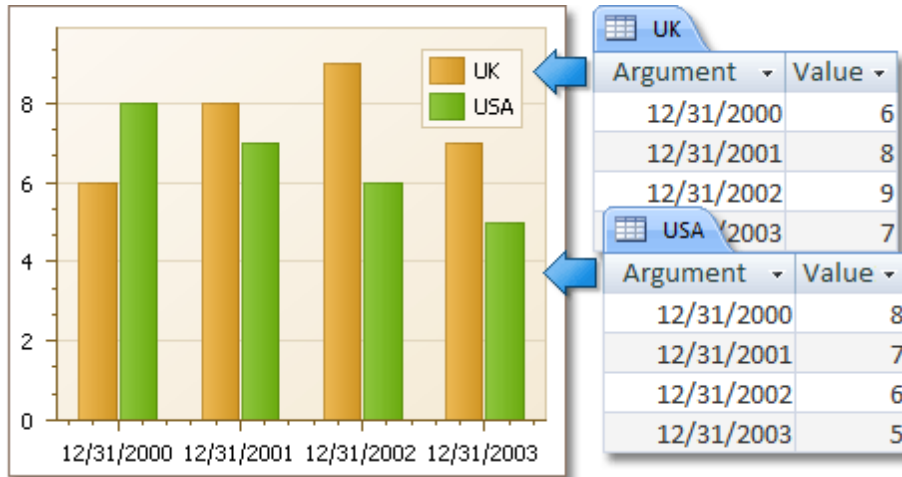
Auto-created Series Tab

Use it to specify data columns used to generate series, as well as the series view type and other options like sorting, filtering and name template.

The following illustration demonstrates how it works.

For familiar data sources (such as Pivot Grid), you can choose to automatically adjust the binding and layout settings of your Chart.

And when you set a Pivot Grid as a Chart's data source, the **Pivot Grid Data Source** tab becomes available.
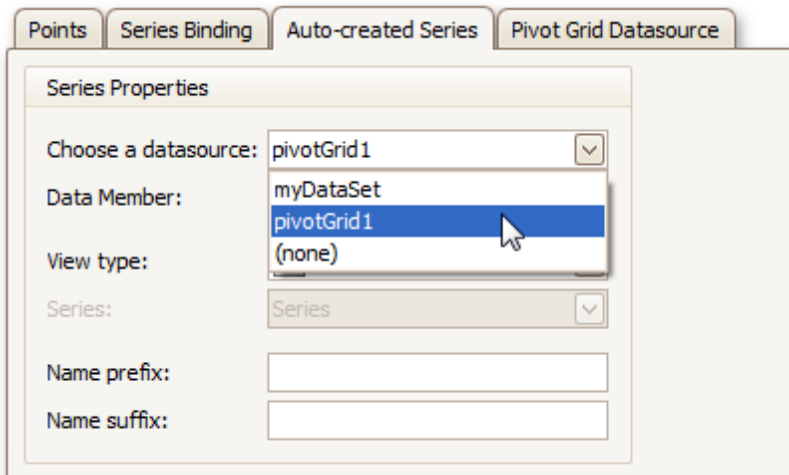
On this tab you can adjust various Pivot Chart options.
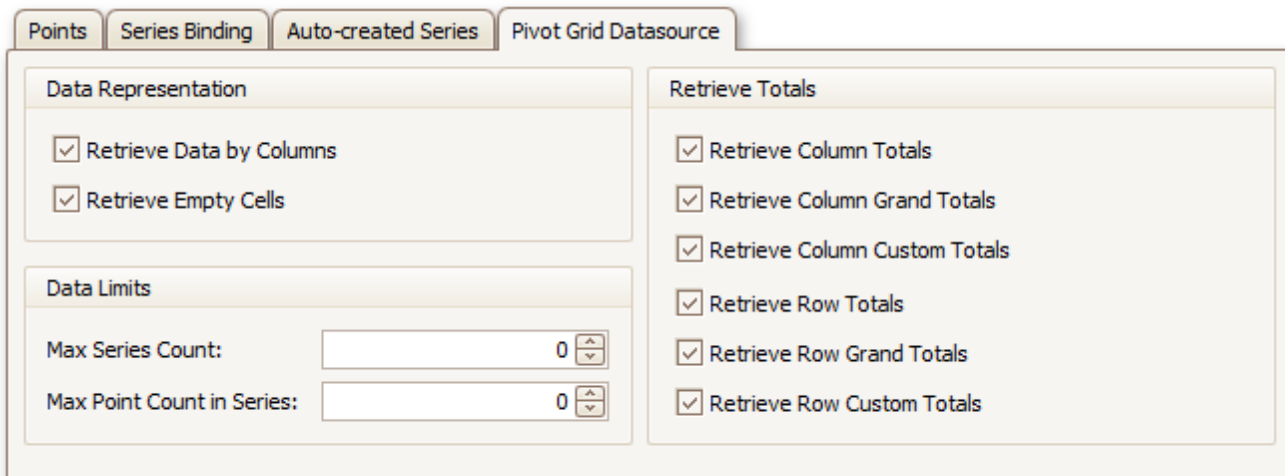
Chart Page

Tasks

- Define a chart's background color and background image.

Page Elements

Chart preview area
Previews a chart's layout.

Options tabs
The following tabs are available on this page.

- **Appearance**
  Specifies a chart's background color, fill style and background image.
- **Padding**
  Specifies the diagram's inner indents.
- **Empty Chart Text**

Specifies the message displayed in the chart, when there's no data to display.

- **Small Chart Text**
  Specifies the message displayed in the chart, when the chart size is too small to fit the diagram.

Diagram Page

Tasks

- Rotate a diagram;
- Define a diagram's padding;
- Add or remove secondary axes;
- Add or remove panes;
- Define panes' layout direction;
- Enable or disable a diagram's scrolling and zooming.

Page Elements

Chart preview area
Previews a chart's layout.

Options tabs

The following tabs are available on this page.

- **General**
  Choose whether a diagram should be rotated, set its padding values, and (if it contains several panes) define the panes' layout direction.

- **Elements**
  Add or remove secondary axes and panes.

- **Scroll & Zoom**
  Enable or disable a diagram's scrolling and zooming, and specify the scrolling and zooming options.

Panes Page

Tasks

- Customize panes properties.

Page Elements

Chart preview area
Previews a chart's layout.

Pane selector
Specifies a pane to be customized.

Options tabs
The following tabs are available on this page.

- **General**
  Determines whether the selected pane should be visible, specifies its name, size mode and size value.

- **Appearance**
Specifies a pane's background color and fill style, and its background image.
- **Border**
Determines whether a pane's border should be visible, and defines its color.
- **Shadow**
Determines whether a pane's shadow should be visible, and defines its color and size.
- **Scroll & Zoom**
Enable or disable a pane's scrolling and zooming for specific axes.
- **Scroll Bars**
If scrolling and/or zooming is enabled for an axis, adjust the scroll bars visibility, position and appearance.

Axes Page

Tasks

- Customize axes properties;
- Customize the appearance of axis labels;
- Add a constant line and a strip line to an axis;
- Enable automatic and manual scale breaks.

Page Elements

Chart preview area
Previews a chart's layout.

Note that you can select an axis to be modified on the chart preview area directly.
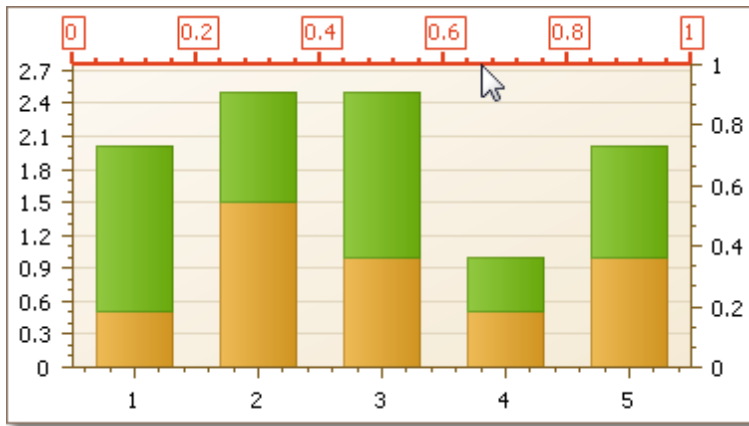
Axis selector
Specifies an axis to be customized.

Options tabs
The following tabs are available on this page.

- **General**
  Specifies visibility, position, range and format properties.

- **Appearance**
  Defines color, thickness and interlacing options.

- **Elements**
  Customizes title, tickmarks and grid lines properties.

- **Labels**
  Specifies position and text for automatically created labels, or allows custom labels to be defined.

- **Strips**
  Allows you to create strips, define their visibility, name, limits, appearance, etc.

- **Constant Lines**
  Allows you to create constant lines, define their visibility, name, value, legend text, appearance, title, etc.

- **Scale Breaks**
  Allows you to enable automatic and / or create custom scale breaks, and define their appearance.

Series Views Page

Tasks

- Customize the view-type-specific properties of series;
- Customize the appearance and border settings of series;
- Add or remove financial indicators (Fibonacci indicators, trendlines and regression lines) and customize their properties.

Page Elements

Chart preview area

Previews a chart's layout.

Note that you can select a series to be modified directly in the chart preview area.
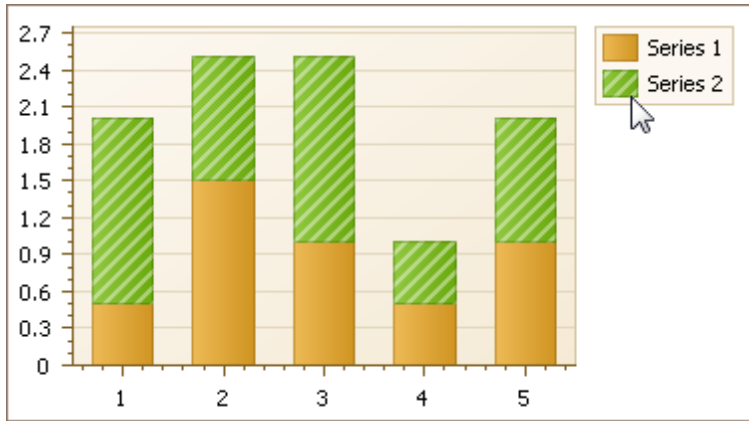
Series selector
Specifies a series to be customized.

Options tabs
The following tabs are available on this page.

- **General**
  Specifies a series bar's width, distance, color, transparency, etc.

- **Appearance**
  Specifies a series color, transparency and fill style. Additionally, determines whether series points should be painted individually.

- **Border**
  Determines whether a series border should be visible, and defines its color and thickness.

- **Shadow**
  Specifies whether a series' shadow should be visible, determines its color and size.

- **Fibonacci Indicators**
  Allows you to add or remove Fibonacci indicators of a required kind (Fibonacci Arcs, Fibonacci Fans or Fibonacci Retracement). Specifies their points' arguments and value levels. Determines whether to display additional levels. Specifies the appearance of the indicators' lines and labels.

- **Trendlines**
  Allows you to add or remove trendlines. Determines whether to extrapolate them to infinity. Specifies their points' arguments and value levels. Defines their color, dash style and thickness.

- **Regression Lines**
  Allows you to add or remove regression lines. Determines their value level and appearance.

Point Labels Page

Tasks

- Resolve overlapping of point labels;
- Customize the appearance of point labels.

Page Elements

Chart preview area
Previews a chart's layout.

Note that you can select point labels to be modified directly in the chart preview area.
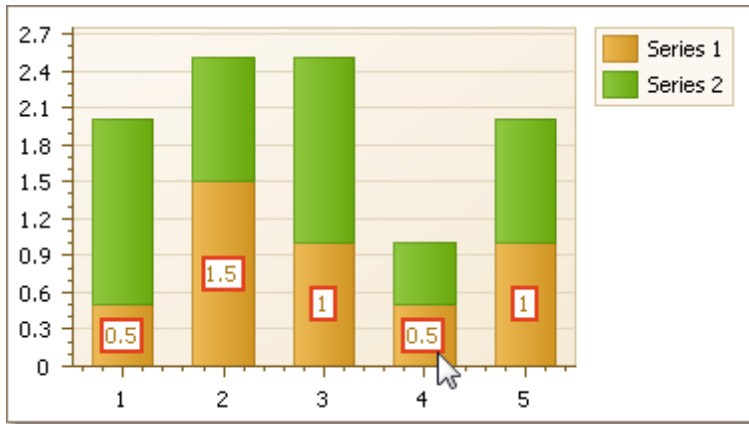
Series selector
Specifies a series to be customized.

Options tabs
The following tabs are available on this page.

- **General**
  Specifies whether labels should be visible and shown for zero values, determines their text and resolve overlapping settings.
- **Line**
  Determines whether labels' lines should be visible, and specifies their appearance.
- **Appearance**
  Specifies the background color and fill style of labels.
- **Border**
  Determines whether labels borders should be visible, and defines their color and thickness.
- **Shadow**
  Specifies whether a labels' shadow should be visible, and defines its color and size.

Chart Titles Page

Tasks

- Create chart titles;
- Enable the word-wrapping for lengthy chart titles;
- Customize the appearance and position of chart titles.

Page Elements

Chart preview area
Previews a chart's layout.

Note that you can select chart titles to be modified in the chart preview area directly.
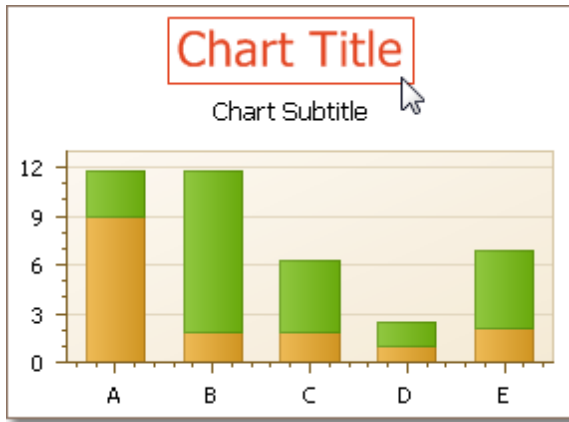
Titles management section
Allows you to add or remove titles from the titles list, and choose a title to be customized.

Options tabs
The following tabs are available on this page.

- **Text**
  Sets a text for the selected chart title. Note that the basic HTML formatting is supported for chart titles.
- **General**
  Specifies a title's visibility, alignment and font options, and determines whether the word-wrapping is enabled for a title.

Legend Page

Tasks

- Customize chart legend's properties.

Page Elements

Chart preview area
Previews a chart's layout.

Note that you can select the legend directly on the chart preview area.
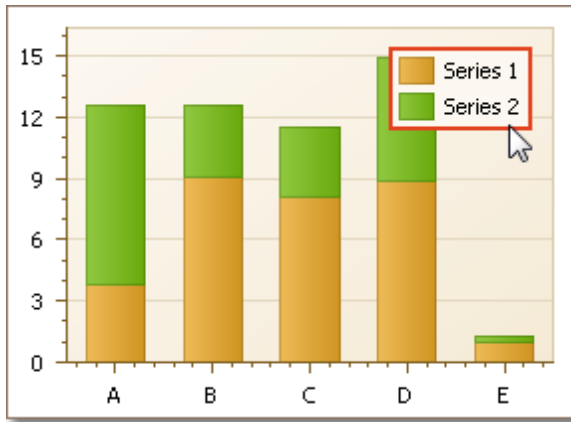
Options tabs
The following tabs are available on this page.

- **General**
  Specifies legend visibility, direction, alignment, spacing, limits and margins.

- **Appearance**
  Specifies legend background color and background image.

- **Marker**
  Specifies visibility and dimensions of legend markers.

- **Text**
  Specifies legend text antialiasing, color and font.

- **Border**
  Specifies visibility, color and thickness of legend borders.

- **Shadow**
  Specifies visibility, color and size of the legend shadow.

Annotations Page

Tasks
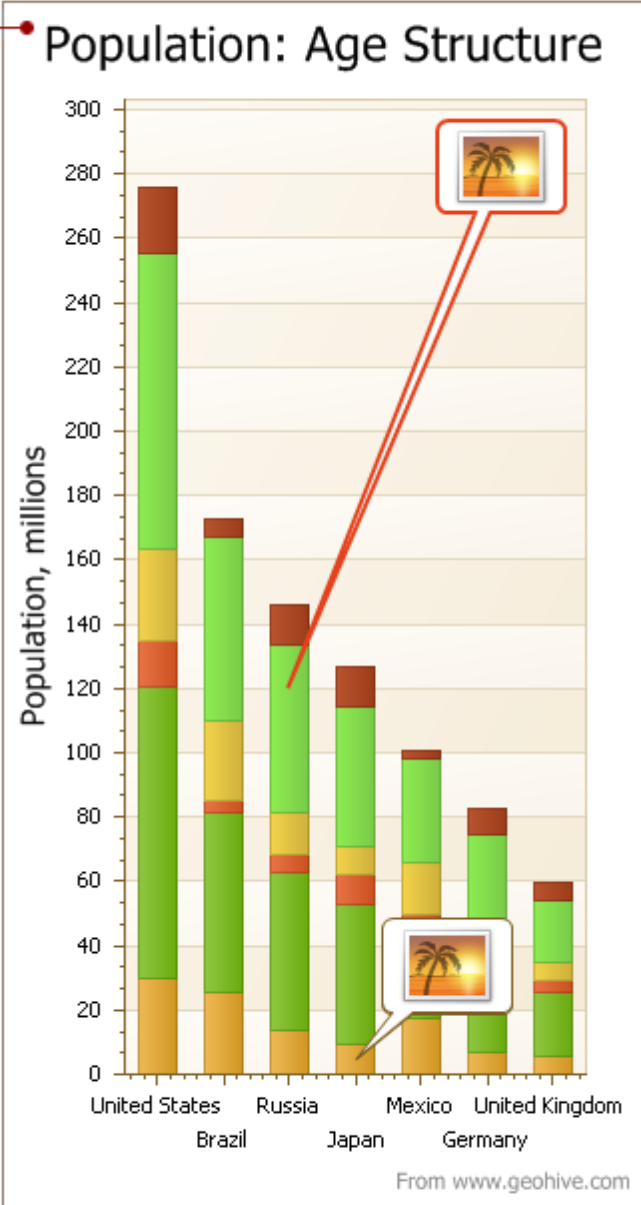
- Create and customize image and text annotations.

Page Elements

Chart preview area
Previews a chart's layout.

Annotation selector
Specifies an annotation to be created and/or customized.

Note that you can select an annotation directly on the chart preview area.

Options tabs
The following tabs are available on this page.

- **General**
  Specify an annotation's name, adjust its visibility, z-order and layout.
- **Anchor Point**
  Choose an element to anchor to (chart, pane, or series point), and adjust the corresponding options.
- **Shape Position**
  Choose an annotation's shape position type (free or relative), and adjust the corresponding options.
- **Content**
  Depending on an annotation's type (text or image), specify its content.
- **Padding**
  Specify an annotation's inner indents.
- **Appearance**
  Adjust an annotation's background color, fill style, shape and connector options.
- **Border**
  Specify visibility, color and thickness of an annotation's borders.
- **Shadow**
  Specifies visibility, color and size of an annotation's shadow.

Select Chart Elements

If you are working with 2D charts, you can highlight and select different chart elements via the mouse.

Selection

Any chart element that can be selected, is highlighted when the mouse pointer hovers over it.
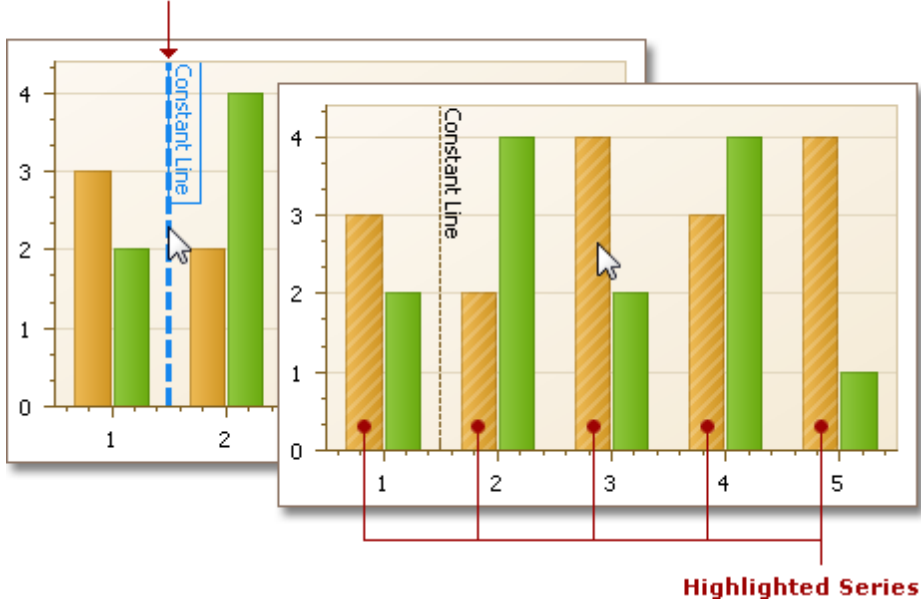
To select a particular chart element, simply click it.
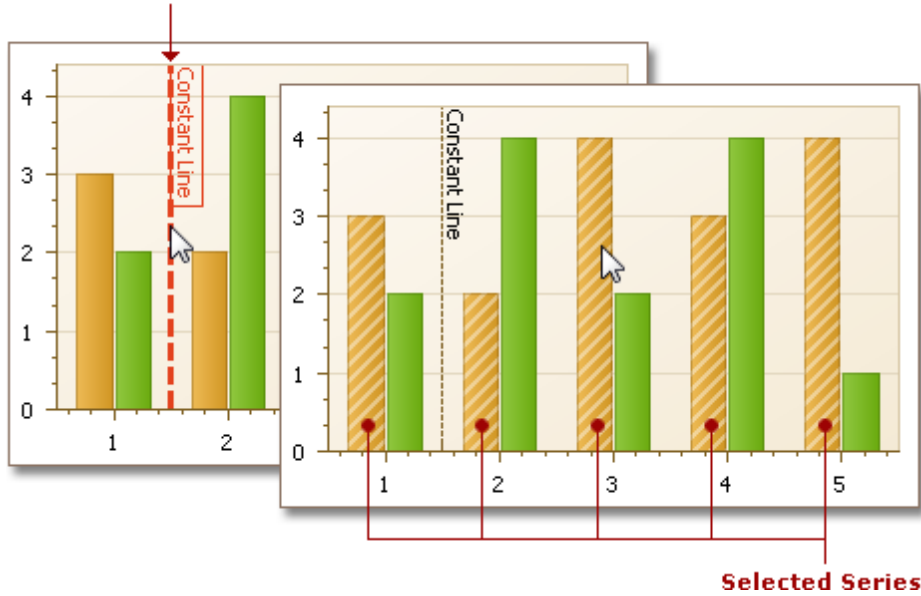
Selectable Elements

Chart elements which can be highlighted or selected, are shown in the following illustration.
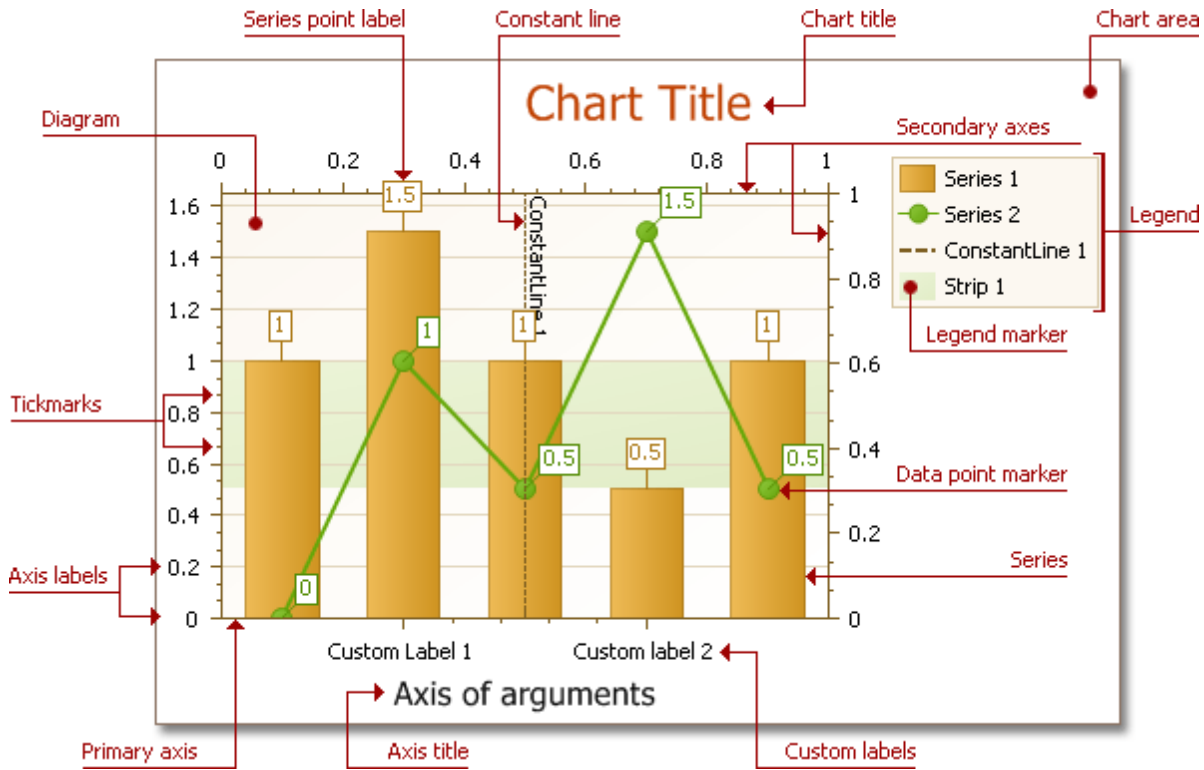
Zoom a Chart

If you are working with 2D XY-charts (Bar, Line, Point, etc.) or 3D charts, you can zoom in or out of a chart. This allows you to see some of the chart's data in greater detail, or get a more general picture or your data.

Note that zooming is unavailable for 2D Pie, 2D Doughnut, Radar, and Polar charts.

Zoom In a Chart

To zoom in a chart, do one of the following.

- **Hold down SHIFT and click.**

    After you press SHIFT, the mouse pointer is changed to ⊕. Then, move the mouse pointer to the chart region to be zoomed into, and click (while holding SHIFT). The magnification factor is 300%.

- **Press SHIFT and select a region on a diagram.**

    After you press SHIFT and the mouse pointer is changed to ⊕. Then select a region by clicking and dragging.
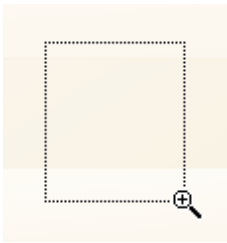
    After releasing the left mouse button, a chart is zoomed into the bounds of the selected region on a diagram.

Note

This feature is available for 2D charts only.

- **Use CTRL+PLUS SIGN.**

    In this case, the magnification factor is 120%.

- **Use the mouse wheel.**

    In this case, the magnification factor is 120%.

Note that if you press SHIFT and can't zoom in anymore (the mouse pointer is changed to 🔍), then a chart is already zoomed in by **100** times (10000%). This is the maximum possible zoom factor allowed.

Zoom Out of a Chart

To zoom out of a chart, do one of the following.

- **Hold down ALT and click.**

    After you press ALT, the mouse pointer is changed to ⊖. Then, move the mouse pointer to the region to be zoomed out, and click (while holding ALT). The magnification factor is 300%.

- **Use CTRL+MINUS SIGN.**

    In this case, the magnification factor is 120%.

- **Use the mouse wheel.**

    In this case, the magnification factor is 120%.

Undo Zooming

Press CTRL+Z to return to the state before the first zoom operation in a series.

Scroll a Chart

You can scroll a chart only if a chart is already <u>zoomed in</u> (therefore, its zoom factor is more than 100%). Since in this case, the entire chart is not visible at one time, it's possible to scroll a chart.

Scroll a 2D Chart

To scroll a 2D chart, do one of the following:

- **Click a chart, and drag it**.

  After you click a chart, the mouse pointer is changed from 🖐 to 🖑. Then drag the mouse pointer, to scroll the diagram.

- **Use scrollbars**.
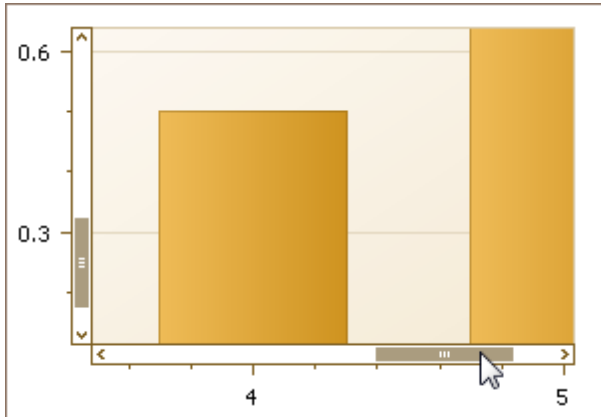
- **Use CTRL+ARROW combinations**.

Scroll a 3D Chart

To scroll a 3D chart, do one of the following:

- **Click the mouse wheel button on a chart and drag it**.

  After you click a chart, the mouse pointer is changed from 🖐 to 🖑. Then drag the mouse pointer, to scroll a chart's diagram.

- **Use CTRL+ARROW combinations**.

Rotate a Chart

If you are working with 3D charts, you can rotate a chart's diagram. This may be required if a chart displays multiple series or data points, and it's required to change the current rotation angle to view chart data in detail.

To rotate a 3D chart's diagram, click a chart's diagram and drag it. After you click a chart's diagram, the mouse pointer is changed from 🖑 to 🖑 . Then, drag the mouse pointer to rotate the chart.

Editors

This section describes the capabilities provided by the editor controls:

Topics in this section:

- [Working with Dropdown Editors](#)
- [Editing Values, Selecting Text and Using the Clipboard](#)
- [Editor Context Menu](#)

Working with Dropdown Editors

Open Editor's Dropdown

Do one of the following:

- Focus the editor and press ALT+DOWN ARROW or F4.
- Click the editor's dropdown button:
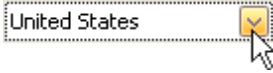
Close Editor's Dropdown

For all editors providing a dropdown, you can close the dropdown by pressing ALT+DOWN ARROW, ESC or F4.

If the calculator is displayed in the dropdown, it can be closed via CTRL+ENTER.

Dropdowns displaying lists of items can be closed by clicking an item with the mouse, or by selecting an item with the keyboard and pressing ENTER.

Editing Values, Selecting Text and Using the Clipboard

Select and Deselect Editor's Contents

To select all text within an editor, you can invoke the Editor Context Menu and choose **Select All**. To select a part of the edit value, click on a position where the selection should start, drag the pointer to the end position and then release the mouse button.

Additionally, the following keyboard shortcuts allow you to manage selections.

Shortcut	Description
CTRL+A or F2	Select all within an editor.
SHIFT+ARROW	Extends or shrinks the selection by one character.
CTRL+SHIFT+ARROW	Extends or shrinks the selection by one word.

Clipboard Operations

Clipboard operations are supported for editors that support caret moving.

To copy selected text into the clipboard, do the following.

- Press CTRL+C or CTRL+INSERT.
- Open the Editor Context Menu and select **Copy**.

To paste text from the clipboard, do the following.

- Press CTRL+V or SHIFT+INSERT.
- Open the Editor Context Menu and select **Paste**.

To cut some text from an editor into the clipboard, do the following.

- Press CTRL+X or SHIFT+DELETE.
- Open the Editor Context Menu and select **Cut**.

Delete Selected Text

To delete the selected text within an editor, do one of the following:

- Press DELETE or BACKSPACE.
- Open the Editor Context Menu and select **Delete**.

Undo

To undo the last text editing operation, do one of the following:

- Press CTRL+Z.
- Open the Editor Context Menu and select **Undo**.

Note

After you've undone an operation, you can return to the previous edit value by executing the Undo command once again.

Change Date/Time Values
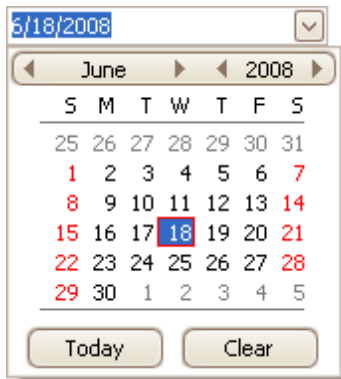
You can edit these values without opening the dropdown calendar. Position the caret at the portion of a date/time value that needs to be changed. To increment the value, press UP ARROW. To decrement the value, press DOWN ARROW. Or, use the mouse wheel.

Change Numeric Values

To increment a value, press UP ARROW. To decrement the value, press DOWN ARROW. Or, use the mouse wheel.

Change Values of Editors That Display Items in the Dropdown
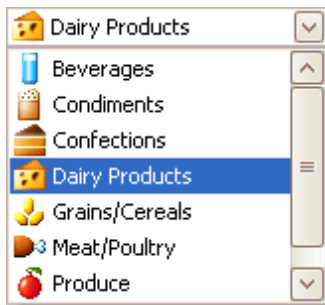
To select the previous value, press UP ARROW. To select the next value, press DOWN ARROW. Or use the mouse wheel.

To learn how to open and close dropdown windows, see Working with Dropdown Editors.

Edit Images

To copy, cut, paste, load and save images in image editors, right click the image and select the required command via the context menu:

Editor Context Menu

Text editors support a context menu providing common commands. To open the menu, right-click an editor.

Expression Editor

Expression Editor

The Expression Editor allows you to edit various Boolean or regular expressions in controls:

In this editor, you can type an expression manually, or select functions, operators and operands using the editor's controls.

An expression is a string that, when parsed and processed, evaluates some value. Expressions consist of column/ field names, constants, operators and functions. Column/field names must be wrapped with brackets. The following are examples of regular expressions:

*"[Quantity] * [UnitPrice] * (1 - [BonusAmount])"*
"[FirstName] + ' ' + [LastName]"

Boolean expressions:

"[Country] == 'USA'"
"[OrderDate] > #8/16/1994# AND [Quantity] > 20"

The Expression Editor supports numerous standard functions, allowing you to easily perform different string, date-time, logical and math operations over data. You can access the available functions by selecting the **Functions** category.

See Also
Expression Operators, Functions and Constants

Expression Operators, Functions and Constants

WinForms Controls > Expression Editor > Expression Operators, Functions and Constants

This topic lists operators and functions supported by the Expression Editor. It also provides information on how constants can be specified in expressions.

Operators

Operator	Description	Example
+	Adds the value of one numeric expression to another, or concatenates two strings.	[FirstName] + ' ' + [LastName] [UnitPrice] + 4
-	Finds the difference between two numbers.	[Price1] - [Price2]
*	Multiplies the value of two expressions.	[Quantity] * [UnitPrice] * (1 - [BonusAmount])
/	Divides the first operand by the second.	[Quantity] / 2
%	Returns the remainder (modulus) obtained by dividing one numeric expression into another.	[Quantity] % 3
|	Compares each bit of its first operand to the corresponding bit of its second operand. If either bit is 1, the corresponding result bit is set to 1. Otherwise, the corresponding result bit is set to 0.	[Flag1] | [Flag2]
&	Performs a bitwise logical AND operation between two integer values.	[Flag] & 10
^	Performs a logical exclusion on two Boolean expressions, or a bitwise exclusion on two numeric expressions.	[Flag1] ^ [Flag2]
==	Returns true if both operands have the same value; otherwise, it returns false.	[Quantity] == 10
!=	Returns true if the operands do not have the same value; otherwise, it returns false.	[Country] != 'France'
<	Less than operator. Used to compare expressions.	[UnitPrice] < 20
<=	Less than or equal to operator. Used to compare expressions.	[UnitPrice] <= 20
>=	Greater than or equal to operator. Used to compare expressions.	[UnitPrice] > 30
>	Greater than operator. Used to compare expressions.	[UnitPrice] >= 30
In (,,,)	Tests for the existence of a	[Country] In ('USA', 'UK', 'Italy')

	property in an object.	
Like	Compares a string against a pattern. If the value of the string matches the pattern, result is true. If the string does not match the pattern, result is false. If both string and pattern are empty strings, the result is true.	[Name] Like 'An%'
Between (,)	Specifies a range to test. Returns true if a value is greater than or equal to the first operand and less than or equal to the second operand.	[Quantity] Between (10, 20)
And	Performs a logical conjunction on two expressions.	[InStock] And ([ExtendedPrice]> 100)
Or	Performs a logical disjunction on two Boolean expressions.	[Country]=='USA' Or [Country] =='UK'
Not	Performs logical negation on an expression.	Not [InStock]

Functions

Date-time Functions

Function	Description	Example
AddDays(DateTime, DaysCount)	Returns a date-time value that is the specified number of days away from the specified DateTime.	AddDays([OrderDate], 30)
AddHours(DateTime, HoursCount)	Returns a date-time value that is the specified number of hours away from the specified DateTime.	AddHours([StartTime], 2)
AddMilliSeconds(DateTime, MilliSecondsCount)	Returns a date-time value that is the specified number of milliseconds away from the specified DateTime.	AddMilliSeconds(([StartTime], 5000))
AddMinutes(DateTime, MinutesCount)	Returns a date-time value that is the specified number of minutes away from the specified DateTime.	AddMinutes([StartTime], 30)
AddMonths(DateTime, MonthsCount)	Returns a date-time value that is the specified number of months away from the specified DateTime.	AddMonths([OrderDate], 1)
AddSeconds(DateTime, SecondsCount)	Returns a date-time value that is the specified number of seconds away from the specified DateTime.	AddSeconds([StartTime], 60)
AddTicks(DateTime, TicksCount)	Returns a date-time value that is the specified number of ticks away from the specified DateTime.	AddTicks([StartTime], 5000)
AddTimeSpan(DateTime, TimeSpan)	Returns a date-time value that is away from the specified DateTime for the given TimeSpan.	AddTimeSpan([StartTime], [Duration])

AddYears(DateTime, YearsCount)	Returns a date-time value that is the specified number of years away from the specieid DateTime.	AddYears([EndDate], -1)
GetDate(DateTime)	Extracts a date from the defined DateTime.	GetDate([OrderDateTime])
GetDay(DateTime)	Extracts a day from the defined DateTime.	GetDay([OrderDate])
GetDayOfWeek(DateTime)	Extracts a day of the week from the defined DateTime.	GetDayOfWeek([OrderDate])
GetDayOfYear(DateTime)	Extracts a day of the year from the defined DateTime.	GetDayOfYear([OrderDate])
GetHour(DateTime)	Extracts an hour from the defined DateTime.	GetHour([StartTime])
GetMilliSecond(DateTime)	Extracts milliseconds from the defined DateTime.	GetMilliSecond([StartTime])
GetMinute(DateTime)	Extracts minutes from the defined DateTime.	GetMinute([StartTime])
GetMonth(DateTime)	Extracts a month from the defined DateTime.	GetMonth([StartTime])
GetSecond(DateTime)	Extracts seconds from the defined DateTime.	GetSecond([StartTime])
GetTimeOfDay(DateTime)	Extracts the time of the day from the defined DateTime, in ticks.	GetTimeOfDay([StartTime])
GetYear(DateTime)	Extracts a year from the defined DateTime.	GetYear([StartTime])
Now()	Returns the current system date and time.	AddDays(Now(), 5)
Today()	Returns the current date. Regardless of the actual time, this function returns midnight of the current date.	AddMonths(Today(), 1)
UtcNow()	Returns the current system date and time, expressed as Coordinated Universal Time (UTC).	AddDays(UtcNow(), 7)

Logical Functions

Function	Description	Example
Iif(Expression, TruePart, FalsePart)	Returns either TruePart or FalsePart, depending on the evaluation of the Boolean Expression.	Iif([Quantity]>=10, 10, 0)
IsNull(Value)	Returns True if the specified Value is NULL.	IsNull([OrderDate])
IsNullOrEmpty(String)	Returns True if the specified String object is NULL or an empty string; otherwise, False is returned.	IsNullOrEmpty([ProductName])

Math Functions

Function	Description	Example
Abs(Value)	Returns the absolute, positive value of the given numeric expression.	Abs(1 - [Discount])
Acos(Value)	Returns the arccosine of a number (the angle, in radians, whose cosine is the given float expression).	Acos([Value])
Asin(Value)	Returns the arcsine of a number (the angle, in radians, whose sine is the given float expression).	Asin([Value])
Atn(Value)	Returns the arctangent of a number (the angle, in radians, whose tangent is the given float expression).	Atn([Value])
Atn2(Value1, Value2)	Returns the angle whose tangent is the quotient of two specified numbers, in radians.	Atn2([Value1], [Value2])
BigMul(Value1, Value2)	Returns an Int64 containing the full product of two specified 32-bit numbers.	BigMul([Amount], [Quantity])
Ceiling(Value)	Returns the smallest integer that is greater than or equal to the given numeric expression.	Ceiling([Value])
Cos(Value)	Returns the cosine of the angle defined in radians.	Cos([Value])
Cosh(Value)	Returns the hyperbolic cosine of the angle defined in radians.	Cosh([Value])
Exp(Value)	Returns the exponential value of the given float expression.	Exp([Value])
Floor(Value)	Returns the largest integer less than or equal to the given numeric expression.	Floor([Value])
Log(Value)	Returns the natural logarithm of a specified number.	Log([Value])
Log(Value, Base)	Returns the logarithm of a specified number in a specified Base.	Log([Value], 2)
Log10(Value)	Returns the base 10 logarithm of a specified number.	Log10([Value])
Power(Value, Power)	Returns a specified number raised to a specified power.	Power([Value], 3)
Rnd()	Returns a random number that is less than 1, but greater than or equal to zero.	Rnd()*100
Round(Value)	Rounds the given value to the nearest integer.	Round([Value])

Sign(Value)	Returns the positive (+1), zero (0), or negative (-1) sign of the given expression.	Sign([Value])
Sin(Value)	Returns the sine of the angle, defined in radians.	Sin([Value])
Sinh(Value)	Returns the hyperbolic sine of the angle defined in radians.	Sinh([Value])
Sqr(Value)	Returns the square root of a given number.	Sqr([Value])
Tan(Value)	Returns the tangent of the angle defined in radians.	Tan([Value])
Tanh(Value)	Returns the hyperbolic tangent of the angle defined in radians.	Tanh([Value])

String Functions

Function	Description	Example
Ascii(String)	Returns the ASCII code value of the leftmost character in a character expression.	Ascii('a')
Char(Number)	Converts an integerASCIICode to a character.	Char(65) + Char(51)
CharIndex(String1, String2)	Returns the starting position of String1 within String2, beginning from the zero character position to the end of a string.	CharIndex('e', 'devexpress')
CharIndex(String1, String2, StartLocation)	Returns the starting position of String1 within String2, beginning from the StartLocation character position to the end of a string.	CharIndex('e', 'devexpress', 2)
Concat(String1, ... , StringN)	Returns a string value containing the concatenation of the current string with any additional strings.	Concat('A', ')', [ProductName])
Insert(String1, StartPosition, String2)	Inserts String2 into String1 at the position specified by StartPositon	Insert([Name], 0, 'ABC-')
Len(Value)	Returns an integer containing either the number of characters in a string or the nominal number of bytes required to store a variable.	Len([Description])
Lower(String)	Returns String in lowercase.	Lower([ProductName])
PadLeft(String, Length)	Left-aligns characters in the defined string, padding its left side with white space characters up to a specified total length.	
PadLeft(String, Length, Char)	Left-aligns characters in the defined string, padding its left side with the specified Char up to a specified total length.	PadLeft([Name], 30, '<')
PadRight(String, Length)	Right-aligns characters in the	PadRight([Name], 30)

	defined string, padding its left side with white space characters up to a specified total length.	
PadRight(String, Length, Char)	Right-aligns characters in the defined string, padding its left side with the specified Char up to a specified total length.	PadRight([Name], 30, '>')
Remove(String, StartPosition, Length)	Deletes a specified number of characters from this instance, beginning at a specified position.	Remove([Name], 0, 3)
Replace(String, SubString2, String3)	Returns a copy of String1, in which SubString2 has been replaced with String3.	Replace([Name], 'The ', ''
Reverse(String)	Reverses the order of elements within String.	Reverse([Name])
Substring(String, StartPosition, Length)	Retrieves a substring from String. The substring starts at StartPosition and has the specified Length..	Substring([Description], 2, 3)
Substring(String, StartPosition)	Retrieves a substring from String. The substring starts at StartPosition.	Substring([Description], 2)
ToStr(Value)	Returns a string representation of an object.	ToStr([ID])
Trim(String)	Removes all leading and trailing SPACE characters from String.	Trim([ProductName])
Upper(String)	Returns String in uppercase.	Upper([ProductName])

Constants

Constant	Description	Description
String constants	String constants must be wrapped in apostrophes. If a string contains an apostrophe, the apostrophe must be doubled.	[Country] == 'France' [Name] == 'O''Neil'
Date-time constants	Date-time constants must be wrapped in '#'.	[OrderDate] >= #1/1/2009#
True	Represents the Boolean True value.	[InStock] == True
False	Represents the Boolean False value.	[InStock] == False
?	Represents a null reference, one that does not refer to any object.	[Region] != ?

See Also
Expression Editor

Filter Editor

This section describes the capabilities provided by the Filter Editor, which allows users to visually build filters:
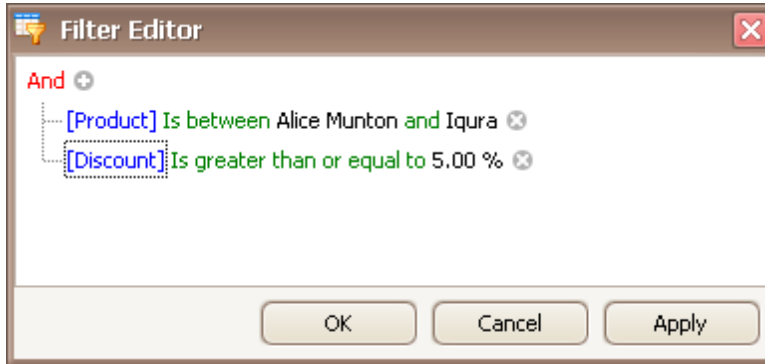
Topics in this section:

- Filter Data via the Filter Editor
- Examples of Using the Filter Editor

Filter Data via the Filter Editor

Filter Editor

The **Filter Editor** is used to edit filter criteria. To create and customize filter criteria, use the ⊕ and ⊗ buttons embedded into the control and context menus supported by the editor's elements:
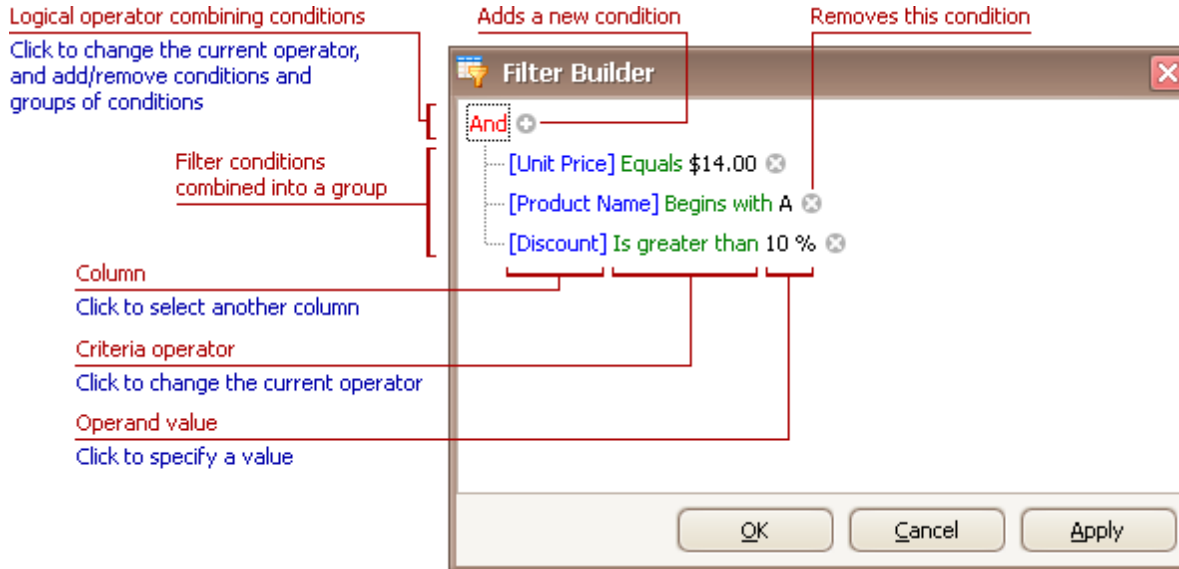
Remarks

A filter condition **group** is a set of conditions combined by the same logical operator. The following filter expression contains two groups combined by the logical OR operator: "([Product] = 'Chang' And [Quantity] > 20) Or ([Product] In ('Tofu', 'Konbu') And [Quantity] < 100)". In the Filter Editor it's represented as follows:
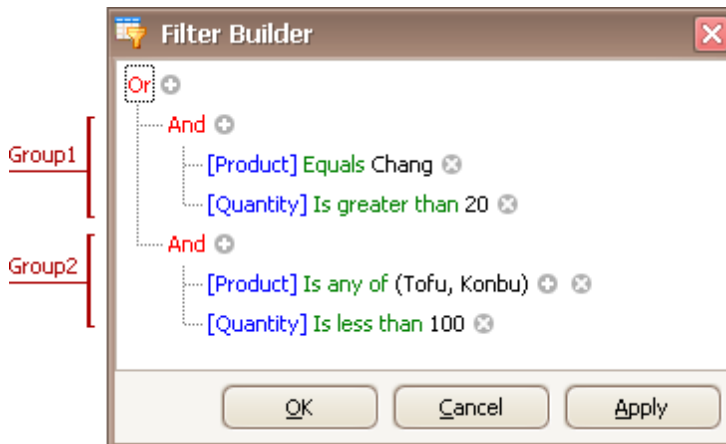
For step-by-step examples of creating filter criteria, see <u>Examples of Using the Filter Editor</u>.

Add Conditions

To add a condition to a logical group, do one of the following:

- Focus any condition within the group or the group's logical operator and then press INSERT or ADD on the keyboard.
- Click the ⊕ button for the group.
- Click the group's logical operator and select **Add Condition**.

To add a condition or a group of conditions that have been copied to the clipboard, press CTRL+V or SHIFT+INSERT. The new condition will be added to the focused group.

Delete Conditions

To delete a condition, do one of the following:

- Focus the condition and press DELETE or SUBTRACT.
- Click the ⊗ button.

To delete a group of conditions, do one of the following:

- Focus the group's logical operator and press DELETE or SUBTRACT
- Click the group's logical operator and select **Remove Group**.

To delete all conditions, do one of the following:

- Focus the topmost logical operator and press DELETE or SUBTRACT.
- Click the topmost logical operator and select **Clear All**.

To cut a condition/group of conditions to the clipboard, focus this condition or the group's logical operator and press CTRL+X or SHIFT+DELETE.

Clipboard Operations

To copy a condition or a group of conditions to the clipboard, focus this condition or the group's logical operator and press CTRL+C or CTRL+INSERT.

To cut a condition or a group of conditions to the clipboard, focus this condition or the group's logical operator and press CTRL+X or SHIFT+DELETE.

To paste a condition or a group of conditions from the clipboard to the focused group, press CTRL+V or SHIFT+INSERT.

Change a Column in a Filter Condition

To change a condition's column, invoke the column list by doing one of the following:

- Click the current column.
- Focus the current column via the keyboard and press SPACE or ALT+DOWN ARROW.

Then, choose the required column from the list that will be invoked

Change an Operator in a Filter Condition

To change a condition's operator, invoke the operator list by doing one of the following:

- Click the condition's current operator.
- Focus the current operator via the keyboard and press SPACE or ALT+DOWN ARROW

Then, choose the required operator from the list that will be invoked

Edit a Condition's Value

To edit a condition's value, click the operand value and type text.

To activate the operand value's edit box without changing the value, click the value or focus the operand value via the keyboard and press F2, SPACE, ENTER or ALT+DOWN

To close the active edit box, press ENTER.

To discard changes to the value and close the active edit box, press ESC.

Navigation

To focus a specific filter condition or a group's operator within the Filter Editor, do one of the following:

- Click the target element.

- Use arrow keys to move focus via the keyboard.

See Also
Examples of Using the Filter Editor

Examples of Using the Filter Editor

The Filter Editor allows you to filter data (display those records that meet specific requirements), by visually constructing filter criteria in a straightforward graphical form.

The following sections demonstrate how to construct filter criteria using the Filter Editor.

How to Construct a Simple Filter Condition

Basically, filter conditions specify what data to select from a data source and display in a data-bound control. A typical simple filter condition consists of three parts: the column/field name, operator and a value(s). For instance, '[Discount] >= 0.05' is a simple filter condition, where '[Discount]' is a field name, '>=' is an operator and '0.05' is a value. This condition when applied to a data-aware control will display records that have values in the Discount column greater than or equal to 0.05. Here is how to create this condition via the Filter Editor (it's assumed that the underlying data source contains the Discount column, otherwise, this column will not be accessible in the Filter Editor's column list):

1. **Invoke the Filter Editor.**

   To invoke the Filter Editor in a grid control, right-click any grid column's header and select the Filter Editor option.
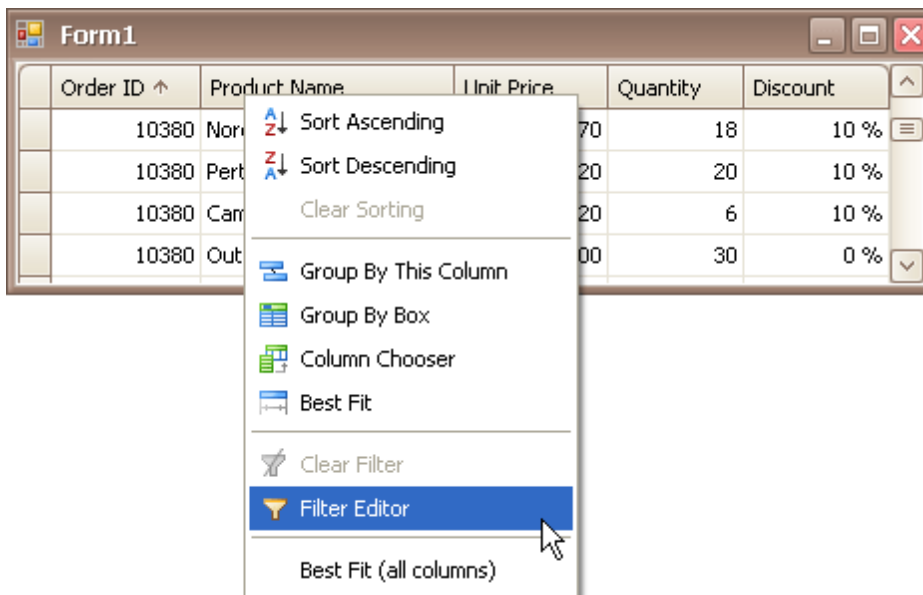
   To learn how to invoke the Filter Editor for other controls, see corresponding sections in this documentation.

2. **The Filter Editor will pop up.**

   When invoking the Filter Editor for a grid control, if no filtering has yet been applied, the Filter Editor will contain a new filter condition referring to the clicked column. If, for example, the Filter Editor has been opened by right-clicking a Product Name column, it will look like the image below:
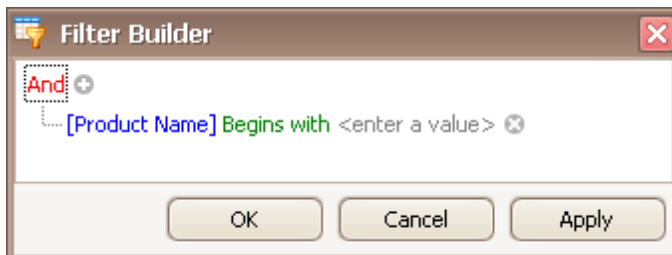
3. **Select a column**.

   Now, to filter against the Discount column, click the condition's link displaying a column name ('Product Name'). This will display the list of available columns. Select the Discount column in this list:
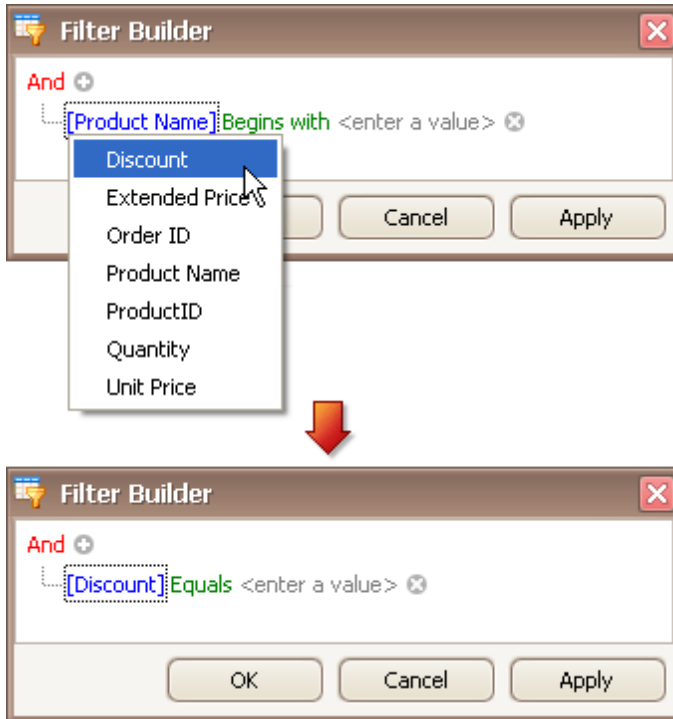
4.Select a comparison operator.

To select the '>=' comparison operator, click the condition's operator link ('Equals') to display the list of supported comparison operators and select the required operator:

The comparison operator list displays only those operators that are supported by the current column's data type. For instance, the Discount column is of the numeric type, and the operator list doesn't display the 'Begins with' operator and other operators that are related to strings.

5.Enter a value.

Now, click the value box and enter a comparison value ('0.05'):
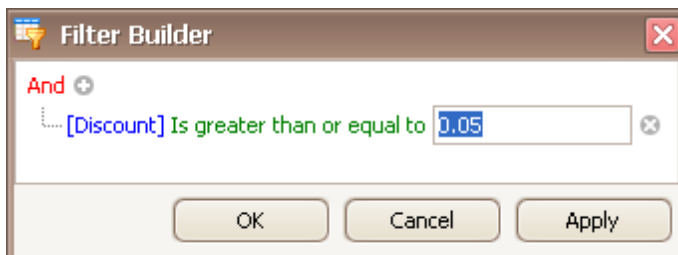
6.Save changes.

Click OK or Apply, to filter data using the created filter condition. The grid will show the filter panel displaying the current filter criteria:

The filter panel will contain the 'Edit Filter' button, which also allows you to invoke the Filter Editor.

How to Construct Filter Criteria with Multiple Conditions Joined by One Logical Operator

Filter criteria typically consist of two or more simple filter conditions combined by logical operators (AND, OR, NOT AND, NOT OR). The following example shows how to construct filter criteria in the Filter Editor that consist of multiple conditions combined by one logical operator. The "[ProductName] = 'Tofu' AND [Discount] >= 0.1 AND [Quantity] > 99" filter expression contains three simple filter conditions combined by the AND operator. To construct it, do the following:

1.Invoke the Filter Editor. When the Filter Editor is invoked for a grid control, the Filter Editor may display an unfinished new filter condition:

2.Set the condition's operator to Equals and operand value to 'Tofu' (as described in the previous section):
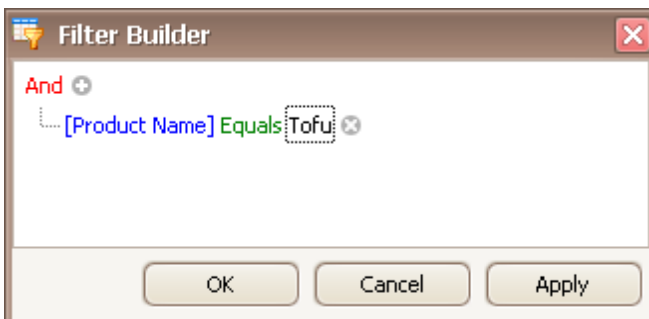
3.To add one more condition, press the ⊕ button next to the group's AND operator:
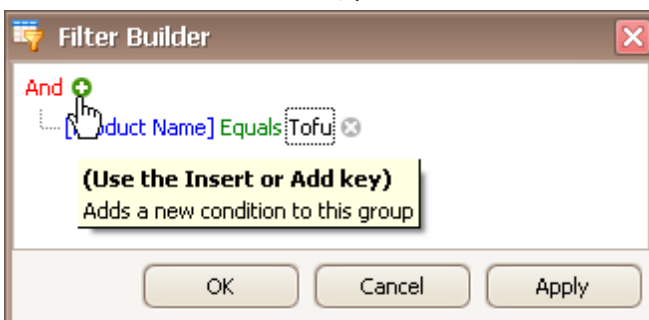
This will create a new condition under the current one:
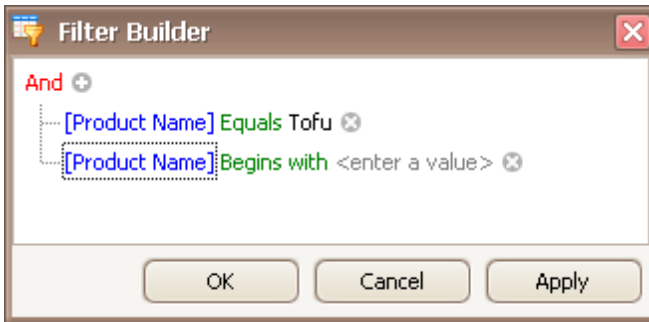
4. For the second condition, set the column to 'Discount', operator to '>=' and operand value to '0.1':
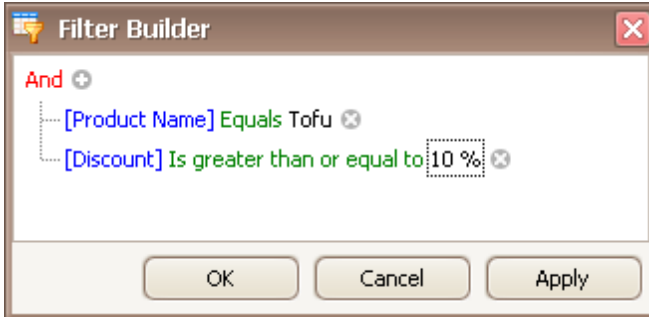
5. To add a third condition to the same group, click the ⊕ button again. Set the condition's column to 'Quantity', operator to '>' and operand value to '99'. Below is the result:
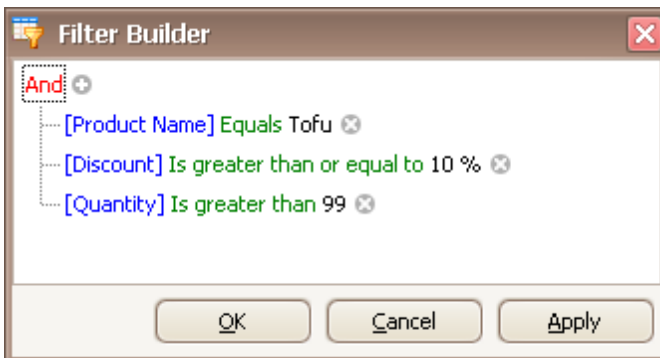
6. Click OK or Apply, to apply the created filter criteria.

How to Construct Filter Criteria Involving Different Logical Operators

Some filter criteria contain multiple logical (Boolean) operators combining simple filter conditions. For instance, you want to see items whose price is under 10, and at the same time, the available quantity is also less than 10. At the same time, you may also want to see those items whose price is over 10, while the available quantity is also greater than 10.

The resulting condition will look like this:

(Price is less than 10 AND Quantity is less than 10) OR (Price is greater than 10 AND Quantity is greater than 10)

This is how you can do this:

1. Invoke the Filter Editor.
2. Clear existing filter conditions (if any) by clicking the ⊗ button:
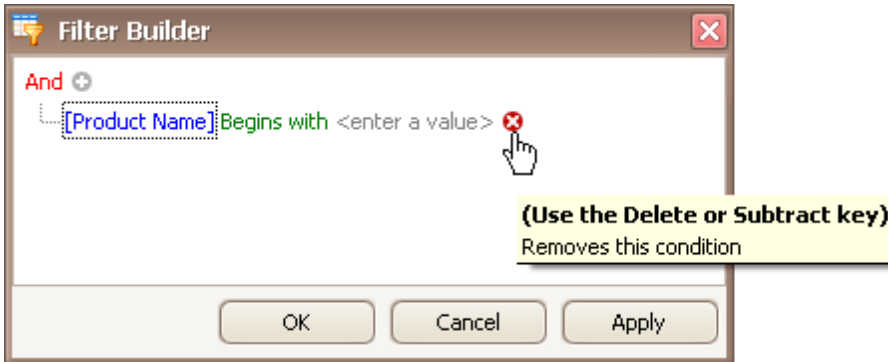
3. Change the root logical operator to OR. To do this, click the current AND operator and select OR:
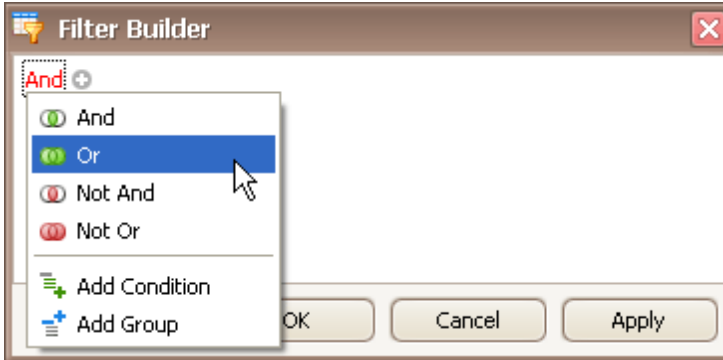
4. Add a new filter condition group by clicking the OR operator and selecting Add Group.
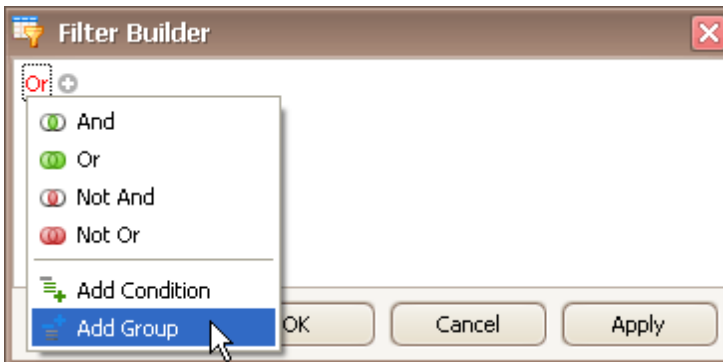
5. For the created condition, set the column to 'UnitPrice', operator to '<' and operand value to '10':
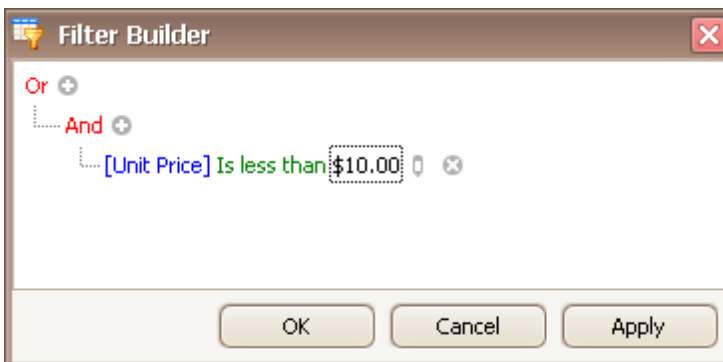
6. Click the ⊕ button to add a new condition to the current group:
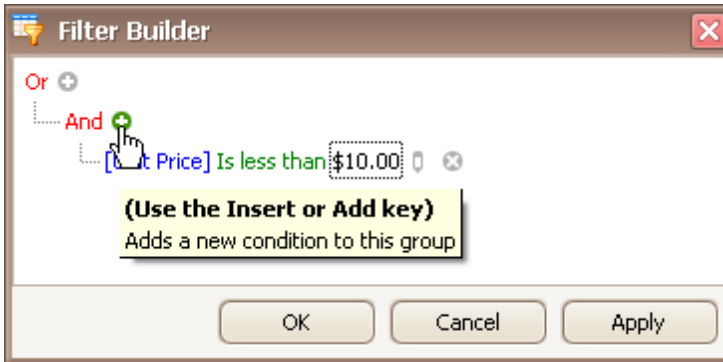
7.For the new condition, set the column to 'Quantity', operator to '<' and operand value to '10':
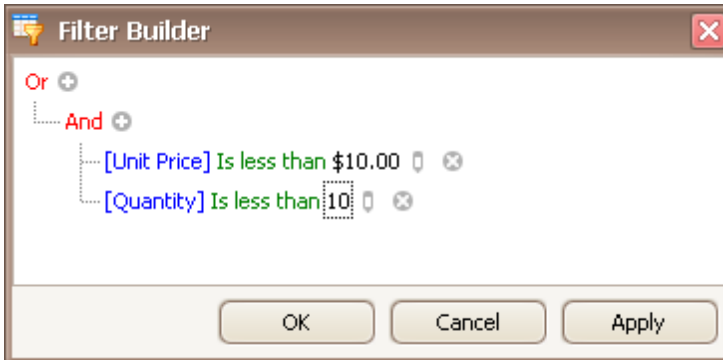
8.Add a new filter condition group. To do this, click the root OR operator and select Add Group.
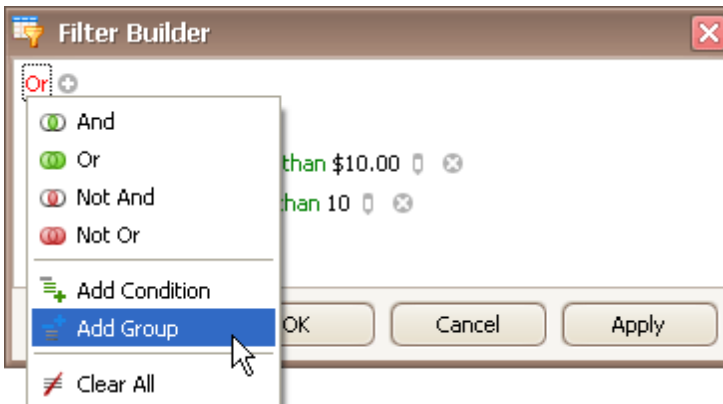
9.For the condition within the created group, set the column to 'UnitPrice', operator to '>' and operand value to '10':

10.Click the ⊕ button to add a new condition to the new group:
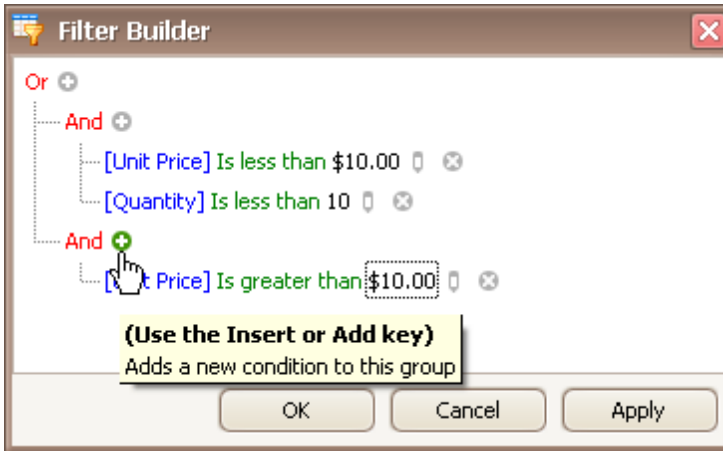
11.For the new condition, set the column to 'Quantity', operator to '>' and operand value to '10':
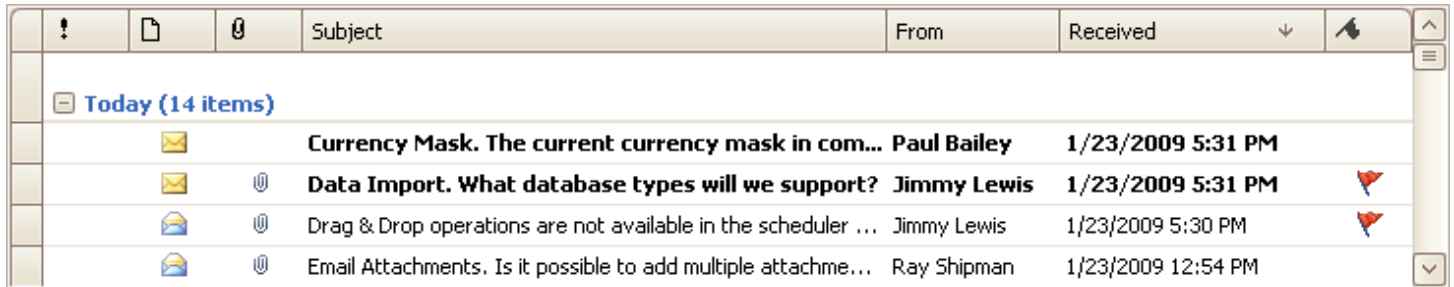
12.Click OK or Apply, to apply the created filter criteria.

See Also

Filter Data via the Filter Editor

Grid

This section describes the capabilities provided by the Grid control, which represents data in a tabular or card form, supports data editing, sorting, grouping, filtering, summary calculation and many other features:

Data Editing

- Edit Grid Cells
- Add and Delete Grid Records

Data Presentation

- Sort Grid Rows
- Group Grid Rows
- Filter Grid Data
- Show Summaries (Totals) in Grids

Layout Customization

- Expand and Collapse Rows and Cards in Grids
- Hide and Display Grid Columns, Bands and Card Fields
- Rearrange Grid Columns, Bands and Card Fields
- Resize Cards in Grids
- Resize Grid Columns, Bands and Card Fields

Selection and Navigation

- Locate Grid Records
- Navigate Through Grid Records
- Select Grid Rows and Cards

Data Editing

Add and Delete Grid Records

Add Records

Click the Append button within the Navigator control:

Delete Records

Click the Delete button within the Navigator control:

Edit Grid Cells

Activate Cell Editor

Do one of the following:

- Click a cell.
- Focus a cell (for instance, via the keyboard), and press ENTER or F2.
- Focus a cell and press any alpha-numeric key. The editor will be invoked and its contents will be replaced with the pressed character.
- Focus a cell and click the Navigator control's Edit button:

If a cell editor provides a dropdown, you can activate the editor and open its dropdown by pressing ALT+DOWN ARROW or F4.

Select and Deselect Cell Text

Press F2 or CTRL+A.

Close Cell Editor and Accept Changes Made

Do one of the following:

- Press ENTER.
- Click the End Edit button within the Navigator control:

- Click any other grid cell.
- Focus any other control.

Discard Changes

To discard changes made in a cell press ESC.

To discard changes made in all cells in a row/card, do one of the following:.

- Press ESC twice.
- Click the Cancel Edit button within the Navigator control:

Open Cell Editor's Dropdown

Do one of the following:

- Press ALT+DOWN ARROW or F4.
- Click the editor's dropdown button:

Close Cell Editor's Dropdown

For all editors providing a dropdown, you can close the dropdown by pressing ALT+DOWN ARROW.

If the calculator is displayed in the dropdown, it can be closed via CTRL+ENTER.

Dropdowns displaying lists of items can be closed by clicking an item with the mouse, or by selecting an item with the keyboard and pressing ENTER.

Change Values

Change Date/Time Values

You can edit these cell values without opening the dropdown calendar. Position the caret at the portion of a date/ time value that needs to be changed. To increment the value, press CTRL+UP ARROW. To decrement the value, press CTRL+DOWN ARROW.

Change Numeric Values

To increment the value, press CTRL+UP ARROW. To decrement the value, press CTRL+DOWN ARROW.

Change Values of Cells That Provide Dropdown Items

To select the previous value, press CTRL+UP ARROW. To select the next value, press CTRL+DOWN ARROW.

Note: this feature is not applicable to all editors.

Edit Images

To copy, cut, paste, load and save images in image editors, right click the image and select the required command via the context menu:

Data Presentation

Sort Grid Rows

Sort Data in Grid Views

To sort records by a column's values and replace existing sort conditions that are applied to the current or other columns, click the target column's header, until an Up or Down Arrow icon is displayed within the header. The Up and Down Arrows indicate ascending and descending sort orders respectively.

To sort records by a column's values while preserving existing sort conditions, do one of the following:

- Click a column header while holding the SHIFT key down, until an Up or Down Arrow icon is displayed within the header.
- Right-click a column header and select **Sort Ascending** or **Sort Descending** from the context menu that appears:

To remove sorting by a column, click a column header while holding the CTRL key down. You can also select Clear Sorting from the column header context menu.

Sort Data in Card Views

To sort records by a card field's values and replace existing sort conditions that are applied to the current or other fields:

1. Click the Customize button:

Customize Button
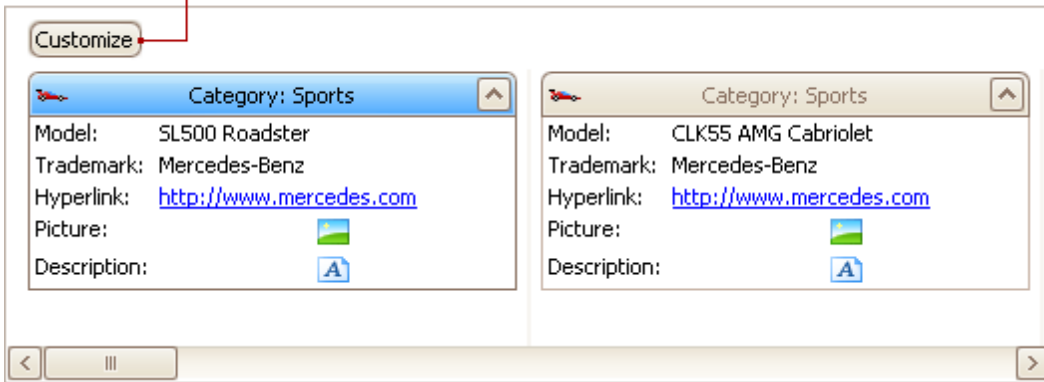
2. In the Customization window that opens, click the Sort button that corresponds to the target card field:
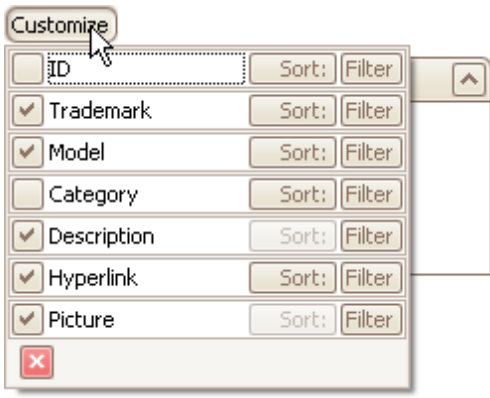
To sort records by a card field's values while preserving existing sort conditions:

1. Click the Customize button.

2. In the Customization window that opens, click the Sort button that corresponds to the target card field, while holding the SHIFT key down.

To remove sorting by a card field:

1. Click the Customize button.

2. In the Customization window that opens, click the Sort button that corresponds to the target card field, while holding the CTRL key down.

Sort Data in Layout Views

To sort records by a card field's values and replace existing sort conditions that are applied to the current or other fields, do the following:

1. Hover over the target card field within any card. The sort (△) and filter buttons will appear.

2. Click the sort button until its image changes to a black arrow (△ or ▽). These images indicate ascending and descending sort orders respectively.

To sort records by a card field's values while preserving existing sort conditions:

1. Hover over the target card field within any card. The sort and filter buttons will appear.

2. Hold the SHIFT key down and click the sort button until its image changes to a black arrow (△ or ▽).

To remove sorting by a card field:

1. Hover over the target card field within any card. The sort and filter buttons will appear.

2. Hold the CTRL key down and click the sort button until its image changes to a gray arrow (△).

Group Grid Rows

Group Data

To group by a specific column, do one of the following:

- Drag a column header from the column header panel to the group panel:

- Right-click a column header and select **Group By This Column** from the context menu:
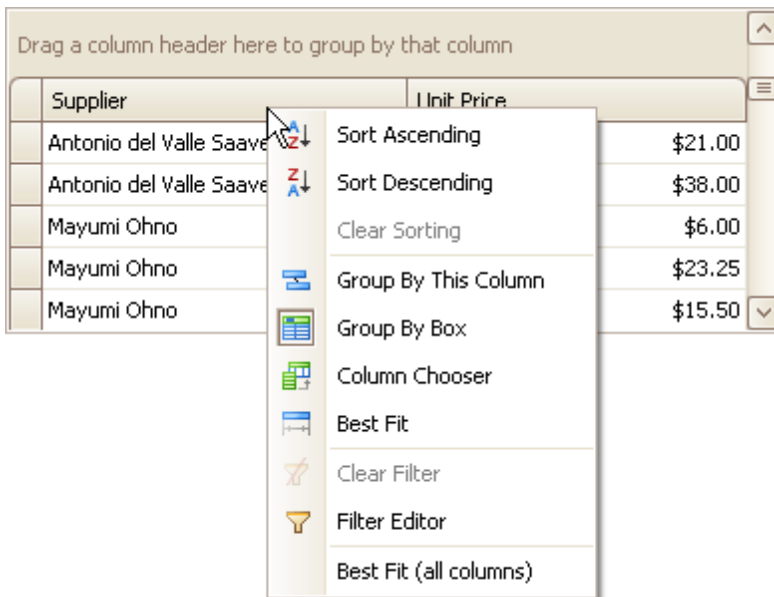
Ungroup Data

To ungroup data by a grouping column, do one of the following:

- Drag a column header from the group panel to the column header panel:
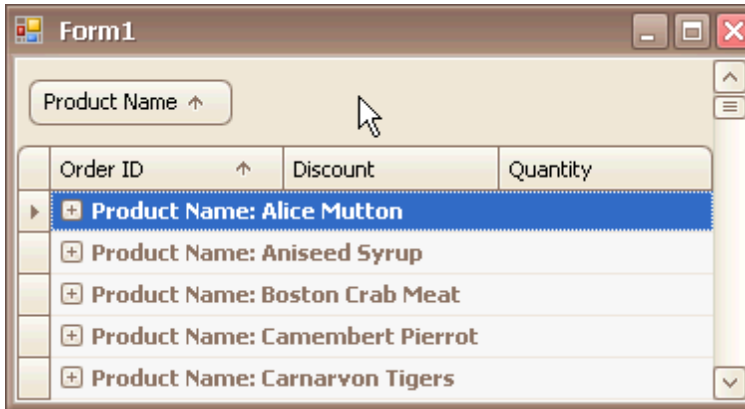
- Right-click a grouping column's header and select **UnGroup** from the context menu:
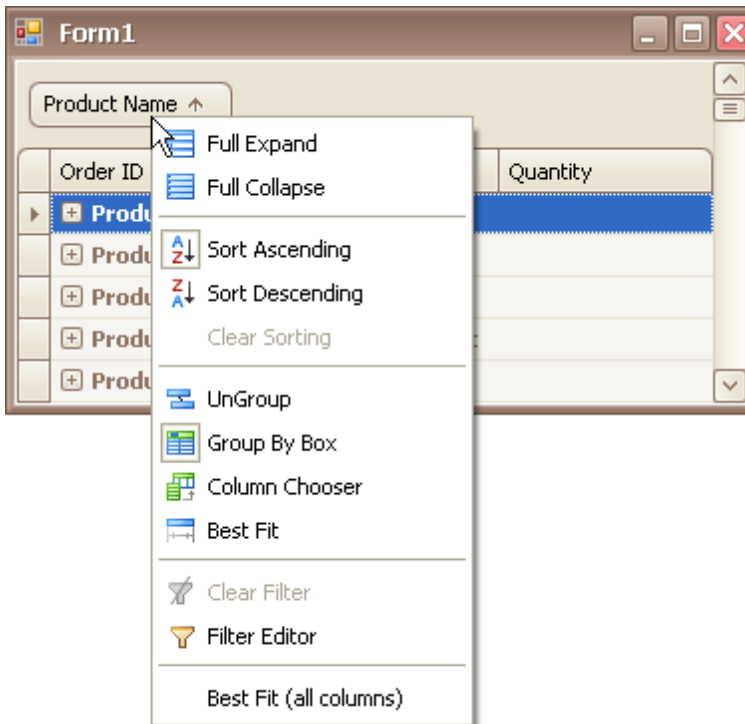
To remove grouping by all columns, right click the group panel and select **Clear Grouping** from the context menu:
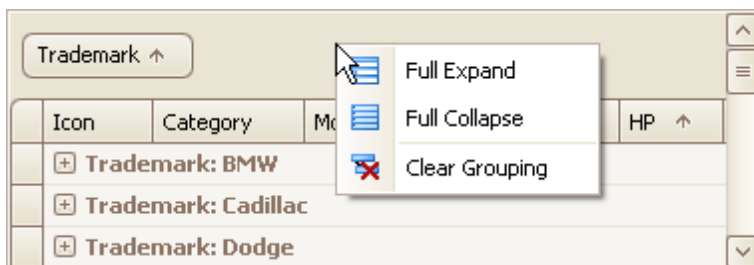
Change Group Order

To change group order, move a grouping column header to another position within the group panel:
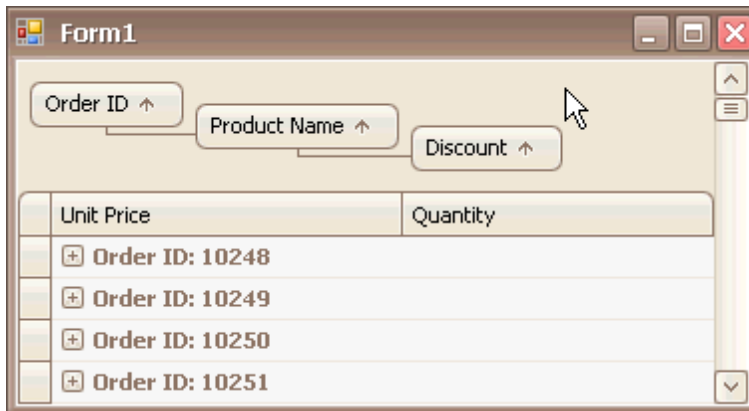
See Also

Expand and Collapse Rows and Cards in Grids

Filter Grid Data

Invoke the Filter Dropdown List

- In Grid Views, hover over the column header. Click the filter button (⊡) within the column header that appears.

Order ID	Product	Unit Price	Quantity
10302	Alice Mutton	$31.20	40
10302	Rössle Sauerkraut	$36.40	28
10302	Ipoh Coffee	$36.80	12
10303	Boston Crab Meat	$14.70	40

- In Card Views, click the Customize button and then click the Filter button corresponding to the target column.

Customize

ID	Sort:	Filter	
✔ Trademark	Sort:	Filter	
✔ Model	Sort:	Filter	
Category	Sort:	Filter	
✔ Description	Sort:	Filter	
✔ Hyperlink	Sort:	Filter	
✔ Picture	Sort:	Filter	

❌
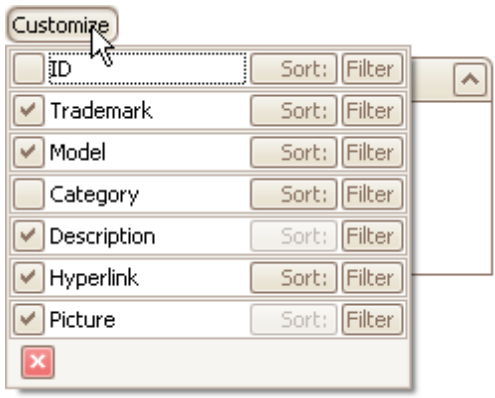
- In Layout Views, hover over the target card field within any card. Click the filter button (▼) that appears.

Record [3 of 9]

Title: Sales Represe...

First Name: Janet

Last Name: Leverling

Country: USA

City: Kirkland

Create a Simple Filter Condition

To select records that contain a specific value in a specific column/card field, do the following:

1. Invoke the filter dropdown list containing available filter values.

   By default, if filtering is applied, the filter dropdown will only display the values which match the current filter criteria. If the SHIFT key is pressed while opening the filter dropdown, all values will be listed (not only those that match the current filter criteria).

2. Select the required filter value in the filter dropdown list:
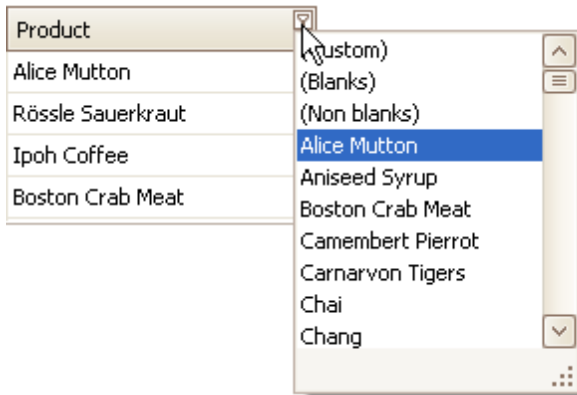
The filter dropdown list will be immediately closed, and the control will display the records which contain the specified value in the specified column/card field.

If the filter dropdown list provides check boxes to the left of filter values, multiple values can be selected (checked) simultaneously:
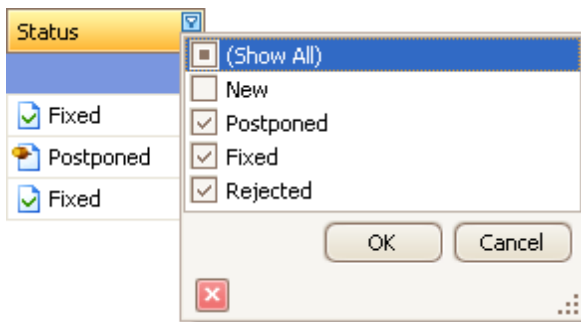
In this mode, click OK to close the filter dropdown list and apply the filter.

You can sequentially filter data against multiple columns using the method described above.

Use Microsoft Excel Style Custom Filter Dialog

To construct filter criteria involving up to two conditions, do the following:

- Invoke the filter dropdown list (see above) and click **Custom**. This will invoke the Custom Filter Dialog, allowing you to compare a column with one or two values:
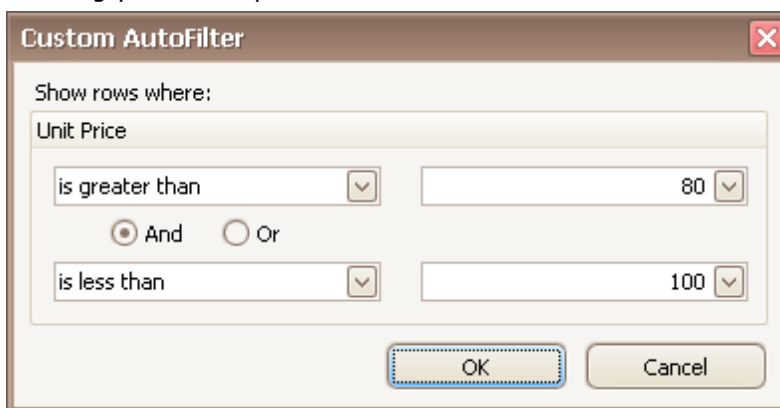
Use Advanced Filter Editor Dialog

To invoke an advanced Filter Editor dialog, do one of the following:

- Right-click any column's header and select **Filter Editor**:
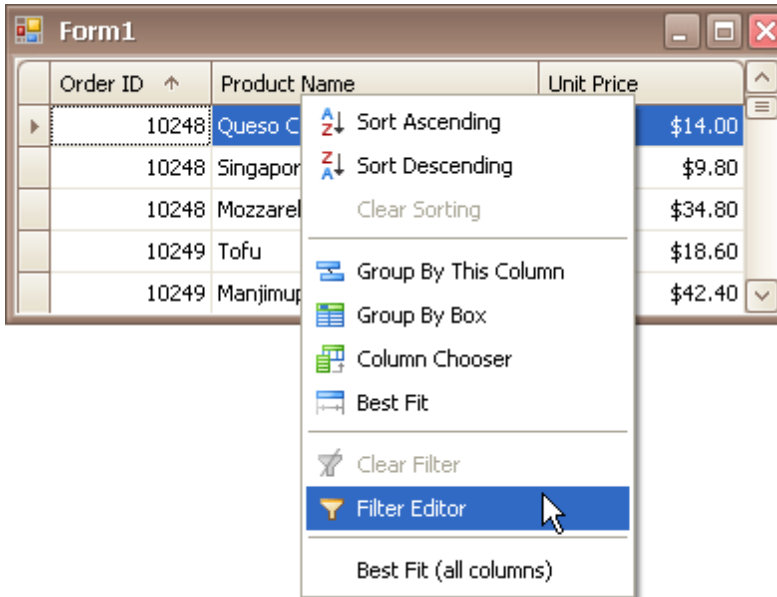
- If the filter panel at the bottom of the grid control is visible, click the **Edit Filter** button:
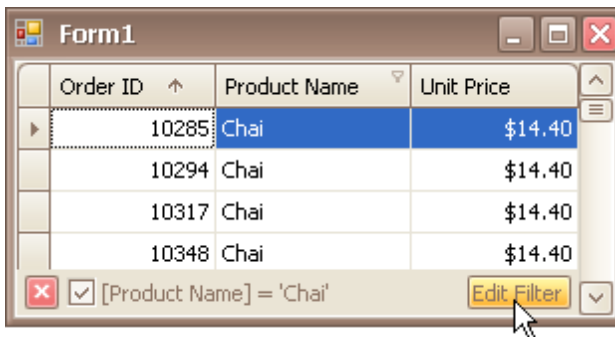
The Filter Editor is also invoked when choosing the **(Custom)** item in a column's filter dropdown list, if the current filter criteria applied to the column consists of three or more simple filter conditions, or if the filter criteria contain advanced comparison operators such as "Is between" and "Is any of".
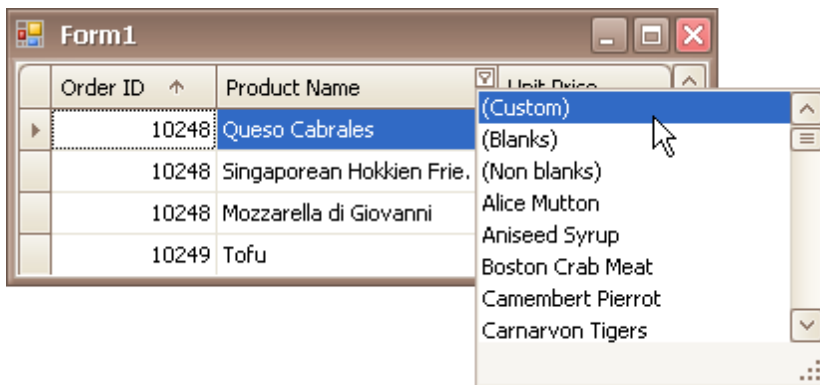
To learn how to work with the Filter Editor, refer to [Filter Data via the Filter Editor](#).

Clear the Filter

To clear the filter applied to a specific column, do one of the following:

- Invoke the filter dropdown list (see below) and click (All).
- In Grid Views, right-click the column header and select Clear Filter:

To clear all filter criteria, click the Close Filter button within the Filter Panel:

Close Filter Button

Disable/Enable the Filter

Click the Enable Filter button within the Filter Panel:

Enable Filter Button

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See Also
Filter Data via the Filter Editor
Examples of Using the Filter Editor

Show Summaries (Totals) in Grids

To change the type of summary for a specific column or apply a summary, do the following:

1. Right-click a region within a group footer or grid footer under a specific column:

A context menu displaying a list of supported summary types will be displayed:
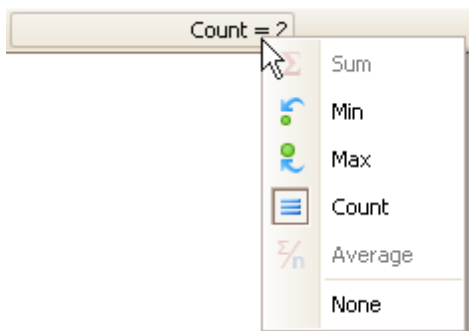
2. Select the required option from the context menu.

Layout Customization

Expand and Collapse Rows and Cards in Grids

Expand/Collapse Group Rows in Grid Views

To expand/collapse a group row, do one of the following:

- Click the row's expand button:
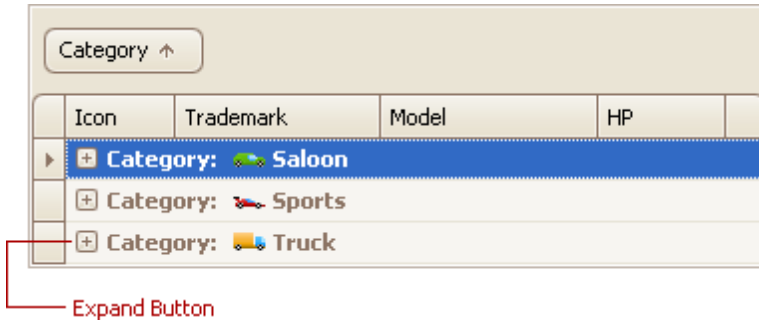
- Double-click the group row.
- Double-click the indicator cell corresponding to the group row:

- Focus the group row and press PLUS (to expand the row) or MINUS (to collapse the row).
- Focus the group row and press RIGHT ARROW (to expand the row) or LEFT ARROW (to collapse the row).

To expand or collapse all group rows, right-click the group panel at the top of the control. This opens the group panel context menu. Then select Full Expand or Full Collapse respectively:
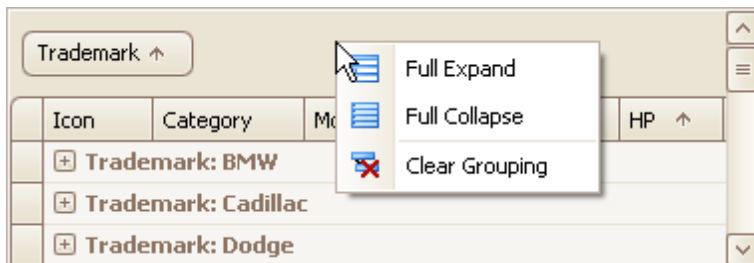
Expand/Collapse Master Rows in Grid Views

To expand/collapse a master row, do one of the following:

- Click the master row's expand button:

- Double-click the indicator cell corresponding to the master row:

- Focus the master row and press CTRL+PLUS (to expand the row) or CTRL+MINUS (to collapse the row).

Expand/Collapse Cards in Card and Layout Views

Do one of the following:

- Click a card's Expand button:
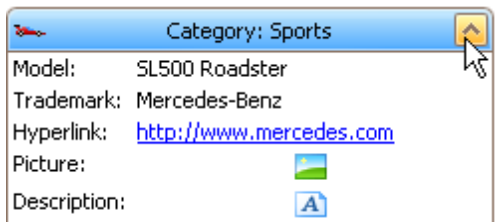
- Click a card's caption and press PLUS (to expand the card) or MINUS (to collapse the card).

Hide and Display Grid Columns, Bands and Card Fields

Hide Columns/Bands in Grid Views

Do one of the following:

- Click a column header/band header and drag it onto the grid control's cell area, until the cursor changes its image to a big 'X'. Then drop the header.
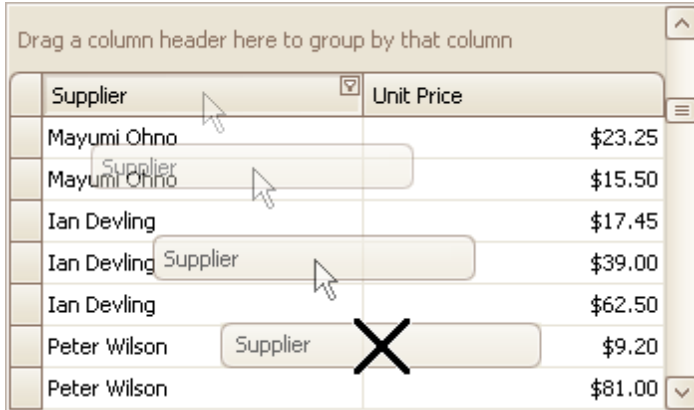
- Drag and drop a column/band header onto the Customization Form if it's open:
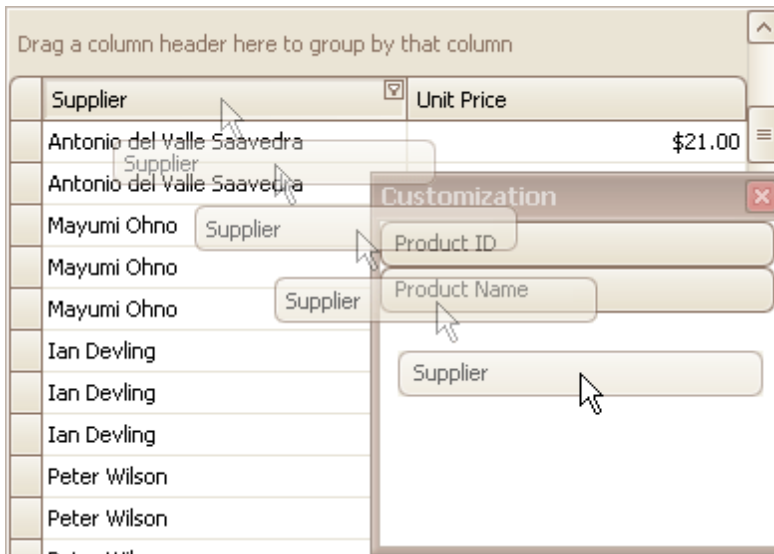
Display Hidden Columns/Bands in Grid Views

1. Open the Customization Form by right-clicking a column header and selecting Column Chooser:
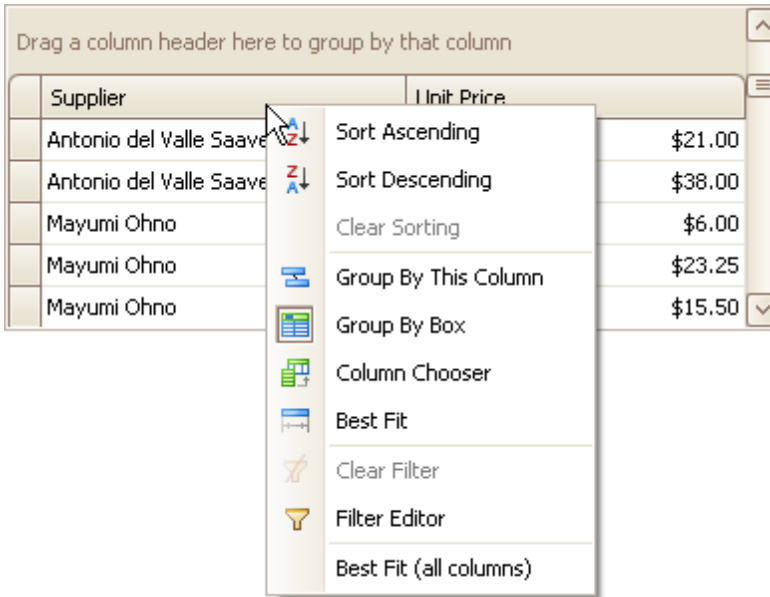
The Customization Form will be displayed listing hidden columns and bands (if any):
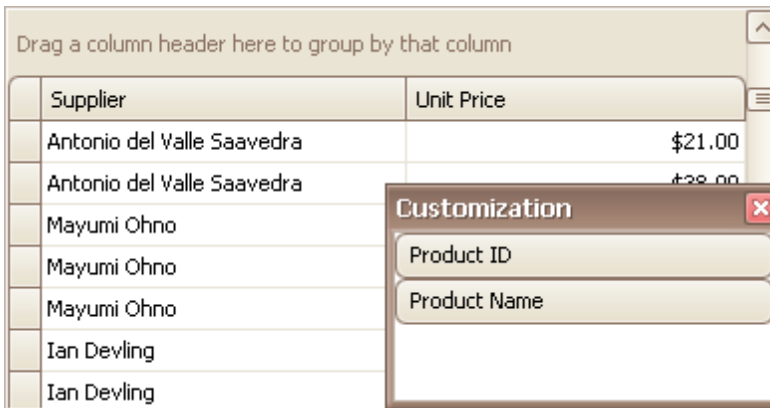
2. Drag the required column/band from the Customization Form onto the column/band header panel and drop it at a specific position.
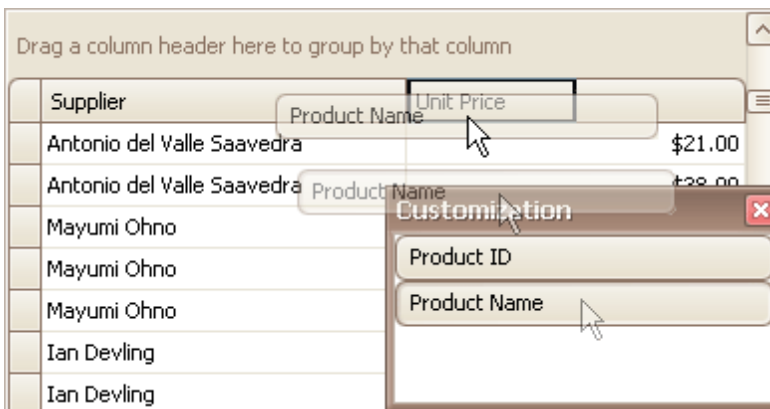
Note

When a band is hidden together with its child bands and columns, headers of hidden children are not displayed within the Customization Form.

Change the Visibility of Fields in Card Views

1. Click the Customize button:
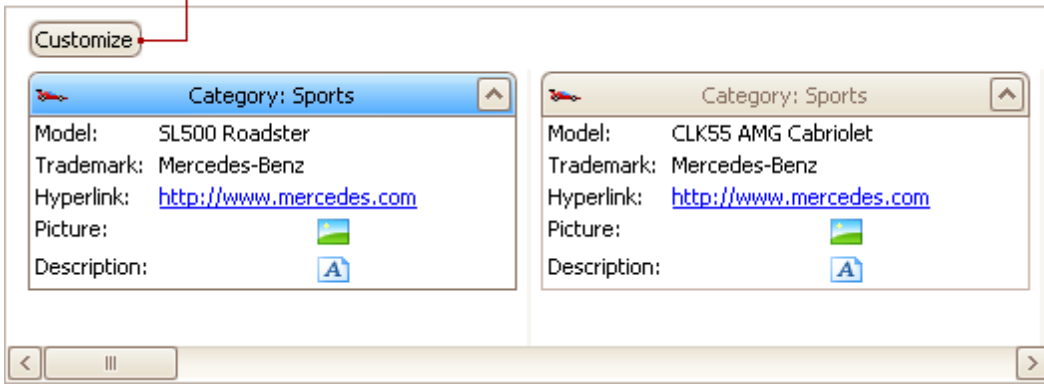
2. To hide specific fields, clear corresponding check boxes in the opened window. To display hidden items, enable corresponding check boxes:
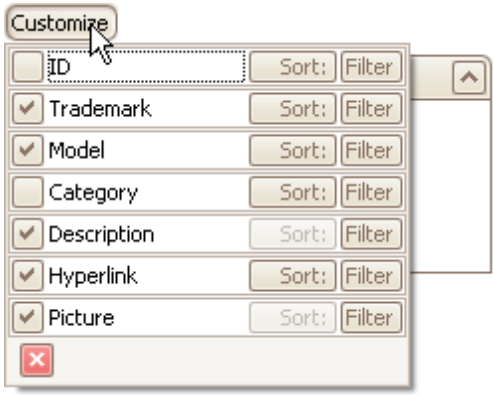
Change the Visibility of Fields in Layout Views

1. Click the Customization button within the header panel:
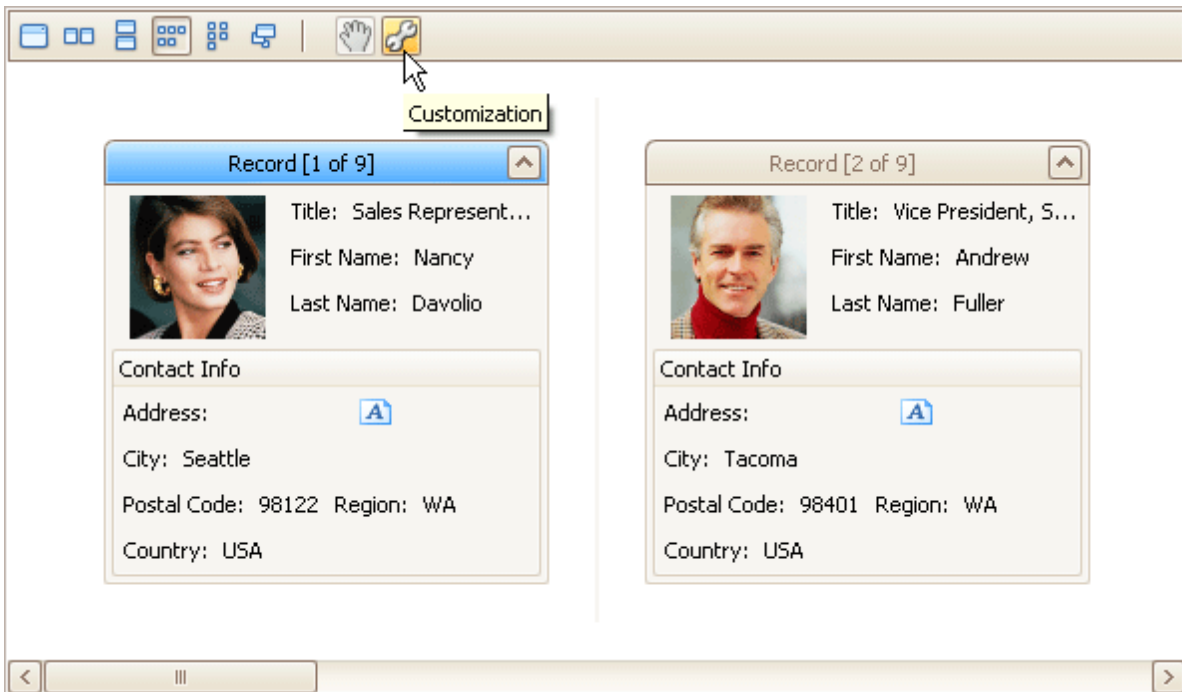
2. To hide a field, in the Layout View Customization Window, drag and drop the field from the Template Card onto the Hidden Items list. To display a hidden field, drag it from the Hidden Items list onto the Template Card at the required position:
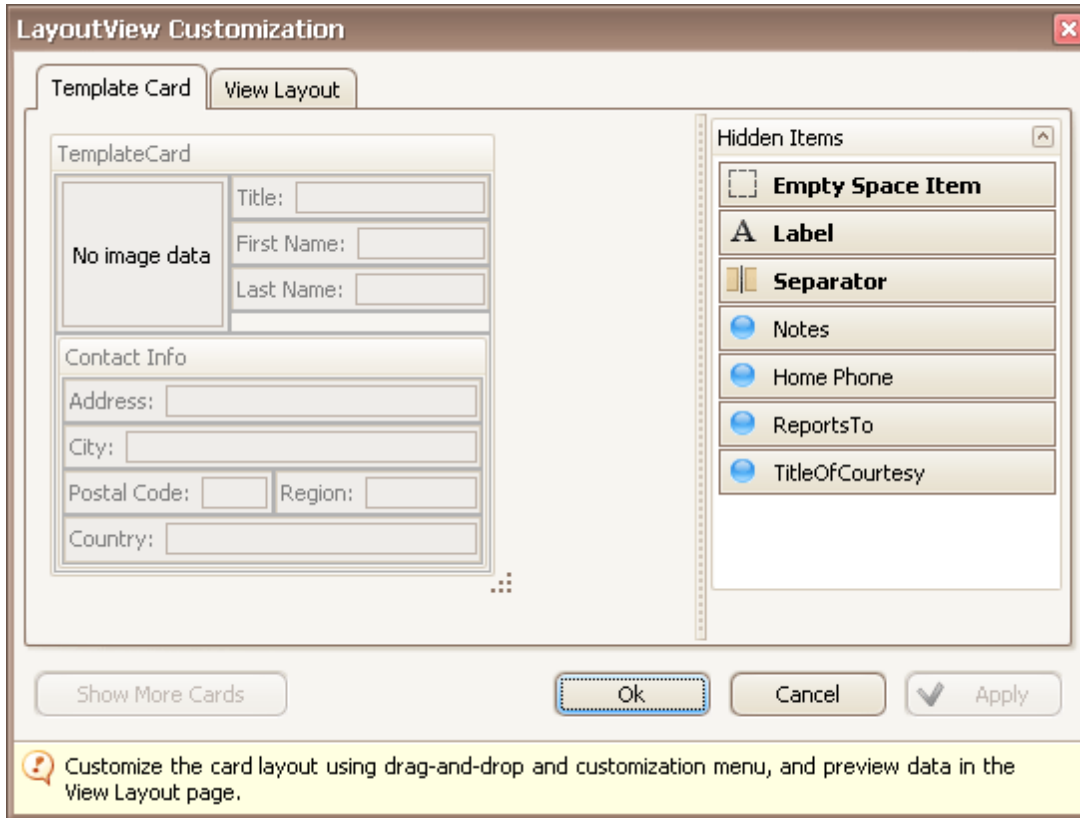
3. Click OK or Apply.

Rearrange Grid Columns, Bands and Card Fields

Reorder Columns and Bands in Grid Views

To reorder columns, drag and drop a column header to a new position:

To reorder bands, drag and drop a band header to a new position:

Rearrange Card Fields in Layout Views
Do the following:

       1.Click the Customization button displayed within the header panel:
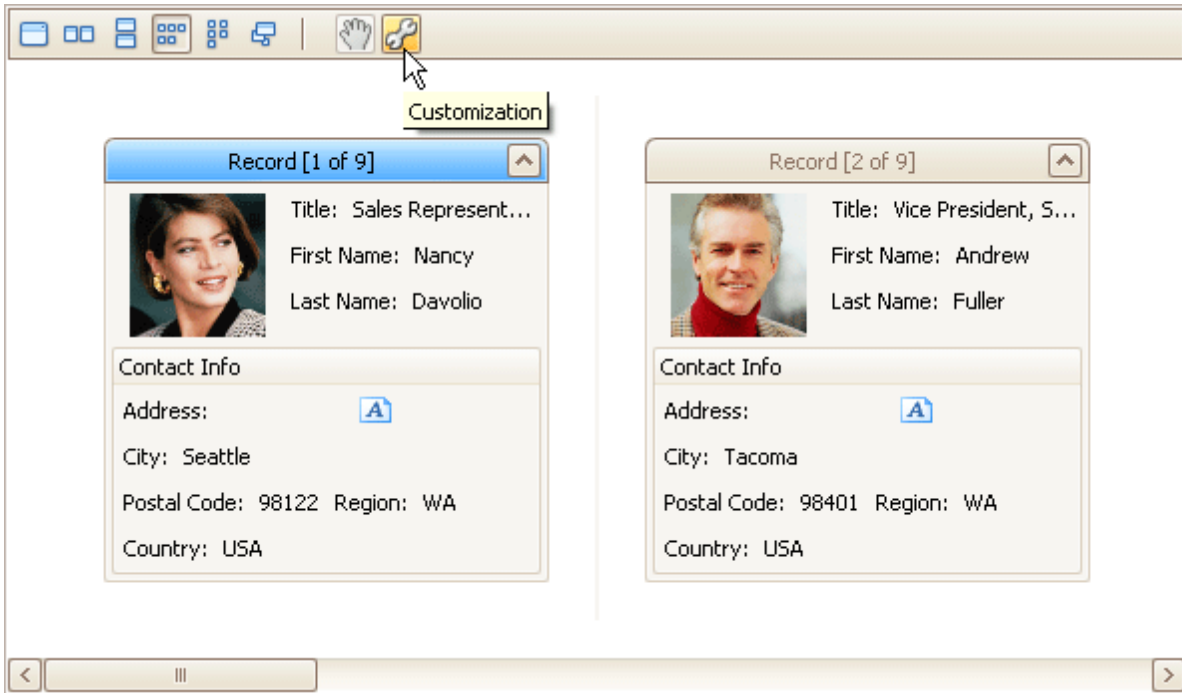
The LayoutView Customization window will open:
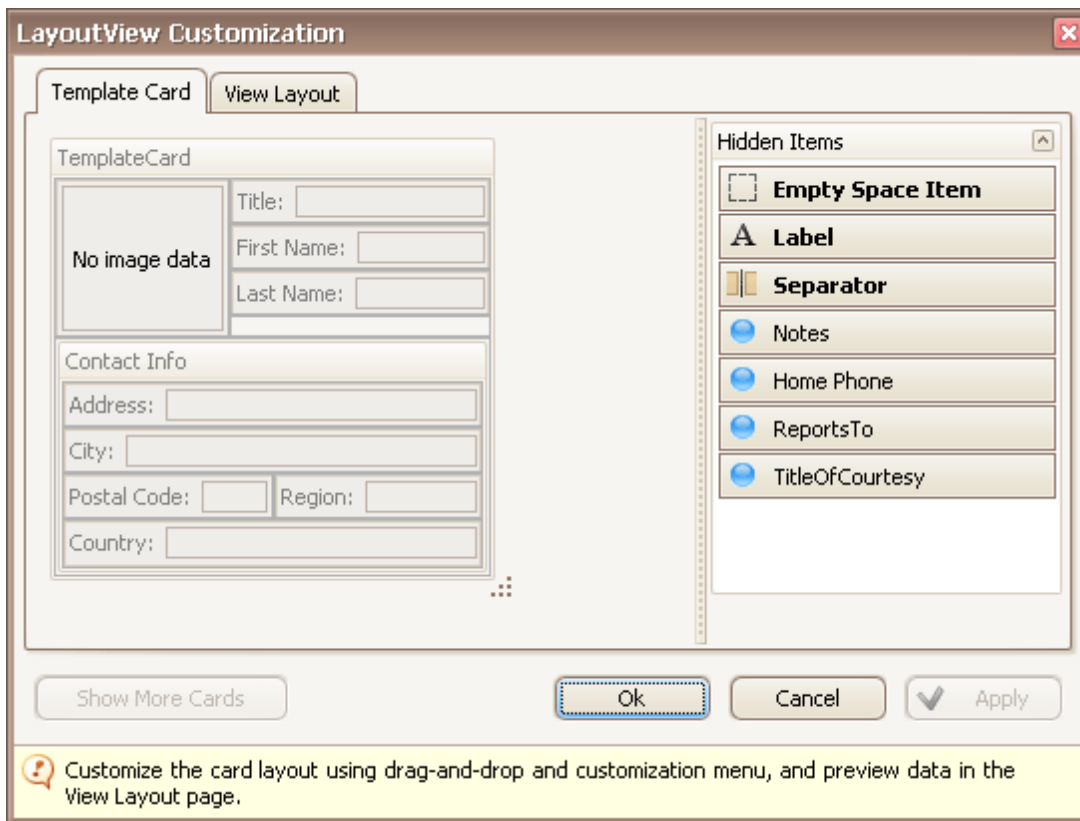
2. Rearrange fields using drag and drop, as required.

3. Close the Customization window to apply the changes.

Resize Cards in Grids

Resize Cards in Card Views

In Card Views, to resize cards horizontally, drag card separators (if they are visible):
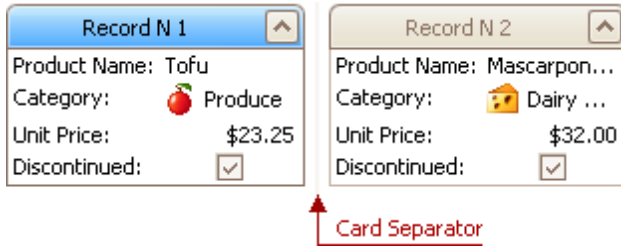
Resize Cards in Layout Views

In Layout Views, to resize cards do the following:
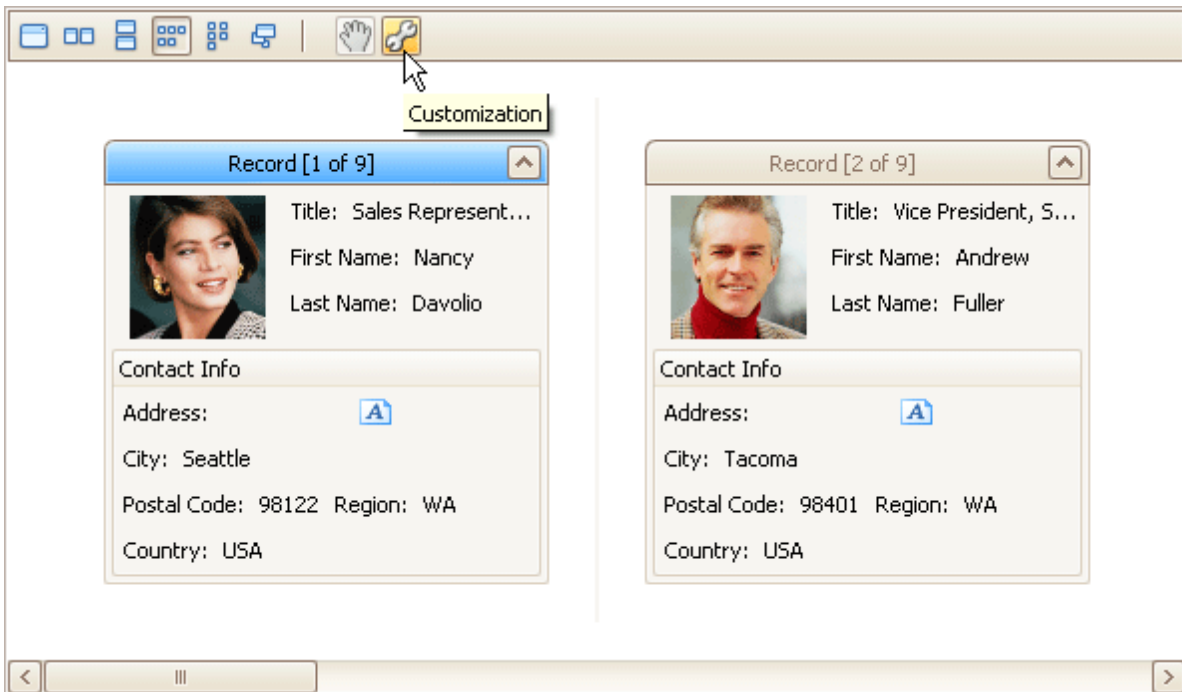
1. Click the Customization button displayed within the header panel:

The LayoutView Customization window will open:
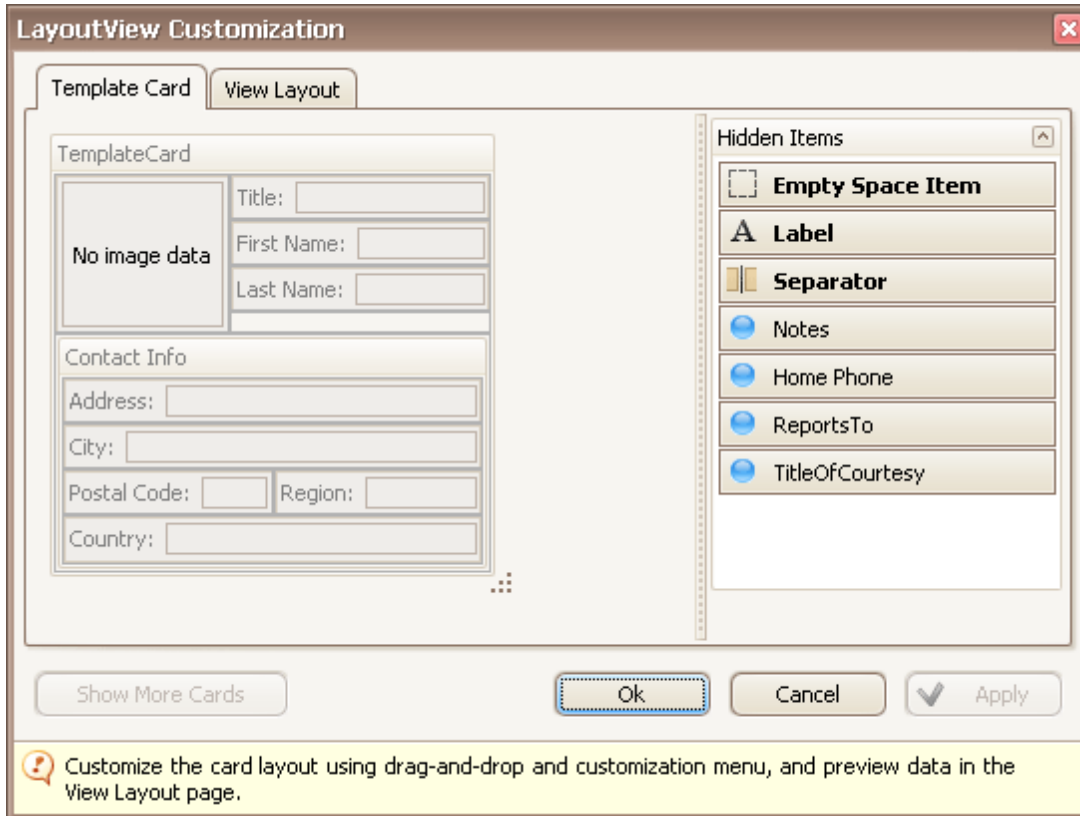
2. Resize the template card as required.
3. Close the Customization window to apply the changes.

Resize Grid Columns, Bands and Card Fields

Resize Columns and Bands in Grid Views

To resize columns and bands, drag the right edge of the target column/band header:

To change a column's width so that it displays its contents compactly in their entirety, do one of the following:

- Double-click the right edge of the column header.
- Right-click the column's header and select **Best Fit**:

To change the widths of all columns so that they display their contents in the best possible way, right-click the header of any column and select **Best Fit (all columns)**.

Resize Card Fields in Layout Views

To resize cards or card fields do the following:

1.Click the Customization button displayed within the header panel:
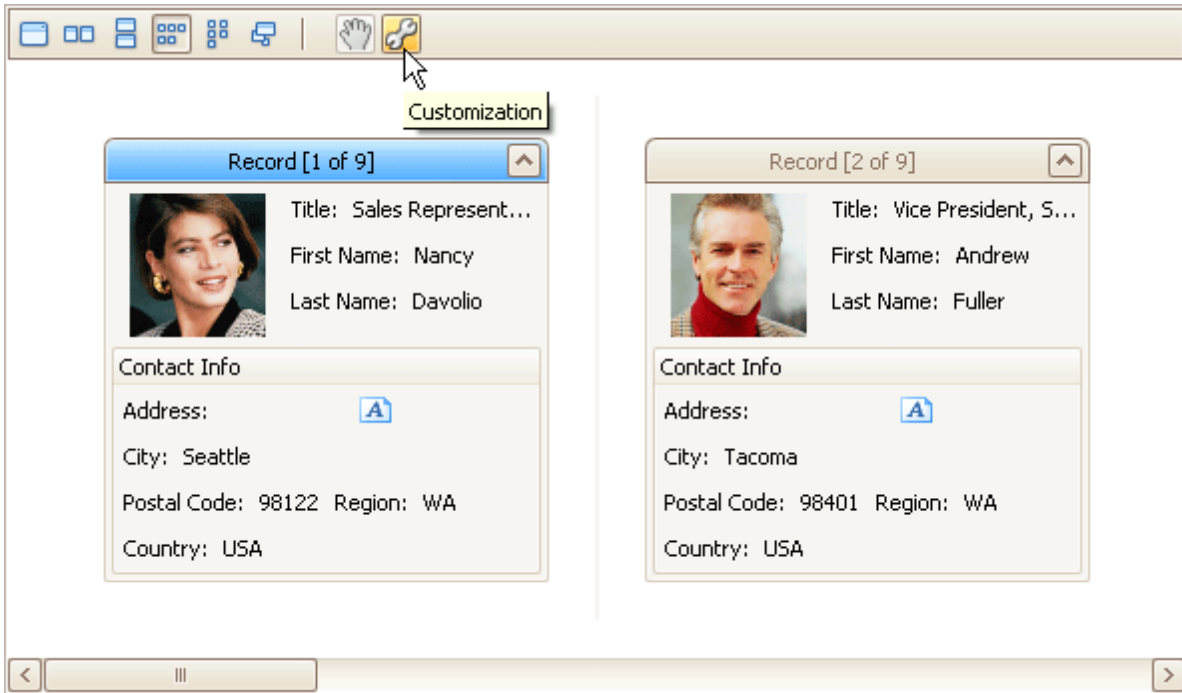
The LayoutView Customization window will open:
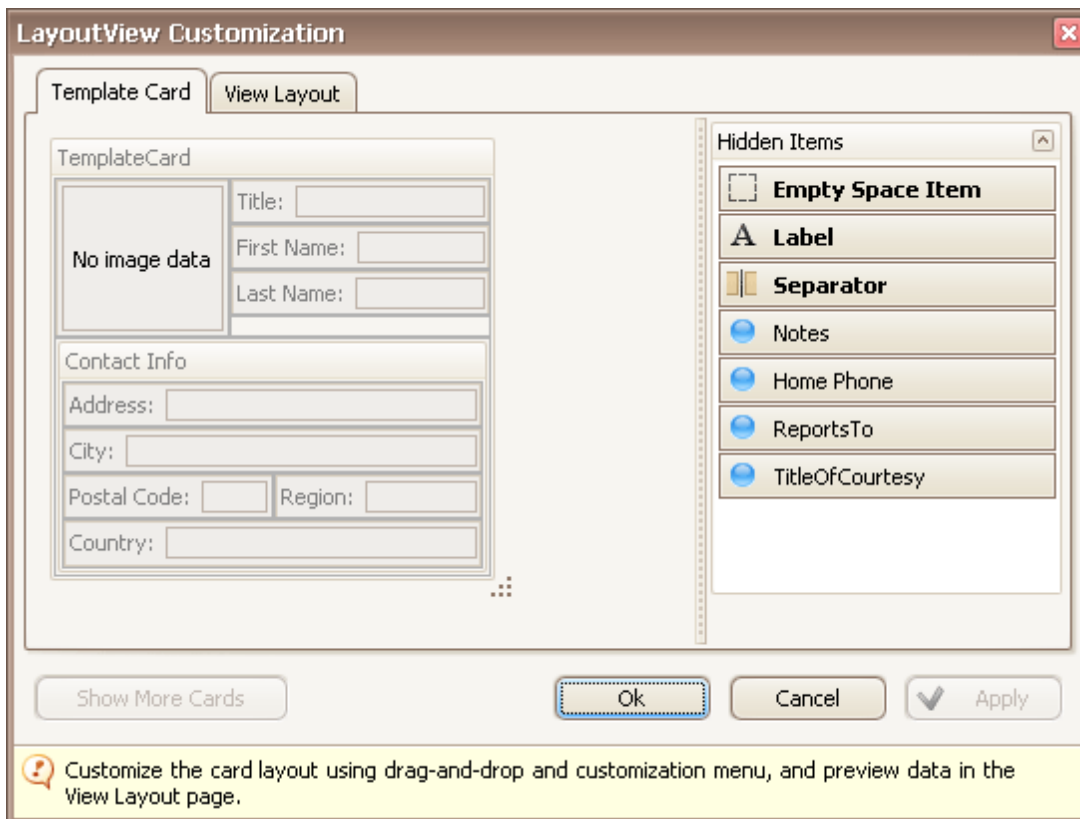
2.Resize the template card and/or fields within the template card as required.

3.Close the Customization window to apply the changes.

Selection and Navigation

Locate Grid Records

In Grid Views, you can locate a data row by typing the initial characters of the values contained in this row.

To locate the nearest row that contains a specific value in a specific column, do the following:

- Focus any cell in the column, against which a search will be performed.
- Type the initial character(s) of the value to be located. The nearest row that contains the specified value in the clicked column will be located.

To proceed with the search in the forward direction, press CTRL+DOWN ARROW.

To proceed with the search in the backward direction, press CTRL+UP ARROW.

To erase the previously typed characters in the search string, press BACKSPACE.

Navigate Through Grid Records

Move Focus Between Rows and Cards

To move focus between cells and rows use the ARROW, TAB, HOME, END, PAGE UP and PAGE DOWN keys. Note that the ARROW, HOME and END keys are used for navigation between rows/cards only when the focused cell is not being edited. Othewise, these keys affect focus movement within the currently edited cell.

To focus the next cell, do one of the following:

- Press TAB.
- In Grid Views, press RIGHT ARROW. In Card Views and Layout Views, press DOWN ARROW. If a cell editor is active, pressing RIGHT ARROW moves focus to the next cell if the caret is positioned at the end of the current cell's text, or if the cell's text is selected in its entirety.

To focus the previous cell, do one of the following:

- Press SHIFT+TAB.
- In Grid Views, press LEFT ARROW. In Card Views and Layout Views, press UP ARROW. If a cell editor is active, pressing LEFT ARROW moves focus to the previous cell if the caret is positioned at the beginning of the current cell's text, or if the cell's text is selected in its entirety.

To focus the first cell within the current row in Grid Views, press HOME.

To focus the last cell within the current row in Grid Views, press END.

To focus the first row/card:

- press CTRL+HOME in Grid Views.
- press HOME or CTRL+HOME in Card Views and Layout Views.

To focus the last row/card:

- press CTRL+END in Grid Views.
- press END or CTRL+END in Card Views and Layout Views.

To move focus to the Auto Filter Row displayed at the top of a Grid View, do one of the following:

- Click this row.
- If a top data row is focused, press CTRL+UP ARROW.

Move Focus Away From the Grid Control

Press CTRL+TAB or CTRL+SHIFT+TAB.

Select Grid Rows and Cards

Select Individual Rows/Cards

To select a row/card and clear the existing selection, do one of the following:
- In Grid Views, click the row's indicator cell or any of its data cells:
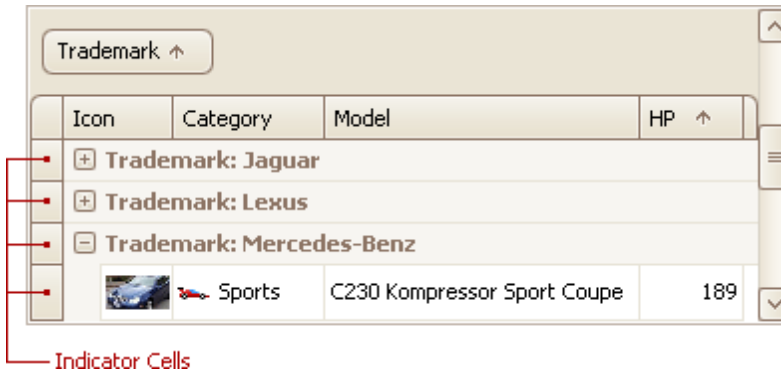
- In Card and Layout Views, click the card's caption or any of its data cells.
- Select the row/card using the ARROW keys.

Select Multiple Rows or Cards

To select a row/card while preserving the current selection, do one of the following:
- In Grid Views, click the row's indicator cell or any of its data cells, while holding the CTRL key down.
- In Card and Layout Views, click the card's caption or any of its data cells, while holding the CTRL key down.

To toggle the focused row's/card's selected state, do one of the following:
- Press CTRL+SPACE.
- Click the row/card while holding the CTRL key down.

To move focus between rows and cards while preserving the current selection, use CTRL+ARROW keyboard shortcut (supported by Grid and Card Views).

Select a Range of Rows/Cards

To select all rows/cards, press CTRL+A (supported by Grid and Layout Views). Before pressing this shortcut, ensure that the focused cell is not being edited

To select a continuous range or rows/cards, you can do the following
- Use ARROW, PAGE UP, PAGE DOWN keys while holding the SHIFT key down.
- To selects all rows/cards between the currently focused row/card and another one, click the target row/card while holding the SHIFT key down.
- To select a continuous range of cards in Layout Views, drag with the mouse around cards that are to be selected (marquee selection).

Copy Selected Records to the Clipboard

Press CTRL+C or SHIFT+INS.

Layout Manager

This section describes the capabilities provided by the Layout Manager. It maintains a consistent layout of controls within a form for you, so whenever you resize the form, the controls do not overlap. You can invoke customization mode to temporarily hide specific editors, and then show them again, resize the controls, save and then restore the layout, etc.

Layout Customization

- Start Layout Customization
- Finish Layout Customization
- Hide and Display Elements using a Layout Manager
- Change Element Layout
- Resize Interface Elements
- Add Empty Regions, Separators, Splitters and Labels
- Change Text Label Options
- Work with Interface Element Groups
- Create and Delete Tabbed Groups

Save and Restore Layout

- Save and Restore Interface Layout

Layout Customization

Start Layout Customization

The layout of controls can be modified in customization mode. To invoke customization mode, right-click an empty space within the Layout Manager and select **Customize Layout**:

As a result, the Customization Form opens a list of service items and currently hidden elements:

Now, you can modify the current layout using drag-and-drop and resizing operations and commands provided by context menus. Context menus that can be invoked by right-clicking within the Layout Manager provide various customization commands. Different commands are available depending upon the type of a layout item which has been right-clicked (a regular control, a group or tabbed group).

Finish Layout Customization

To finish [customization](), do one of the following:

- Close the Customization form by clicking on its close button.

- Right-click the form and select **Hide Customization Form**.
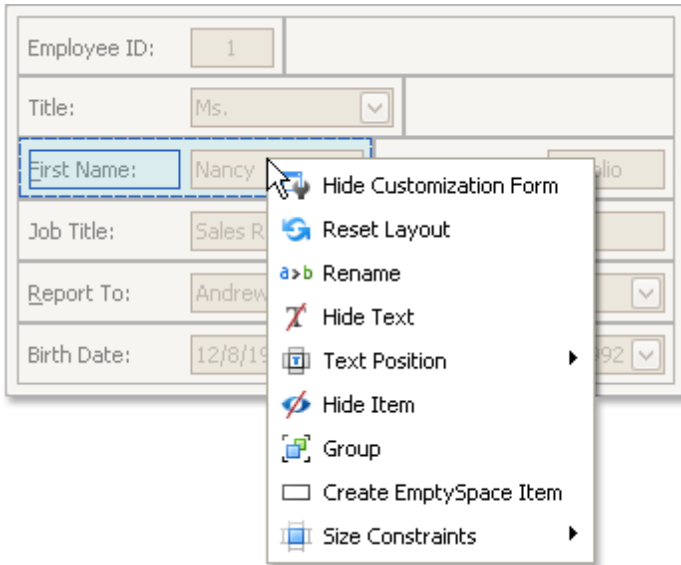
Hide and Display Elements using a Layout Manager

To perform layout customization, first invoke <u>Customization Mode</u>. After customization has been completed, <u>exit</u> customization mode.

Hide an Element

Do one of the following:

- Right-click on the layout item and select **Hide Item** from the context menu:
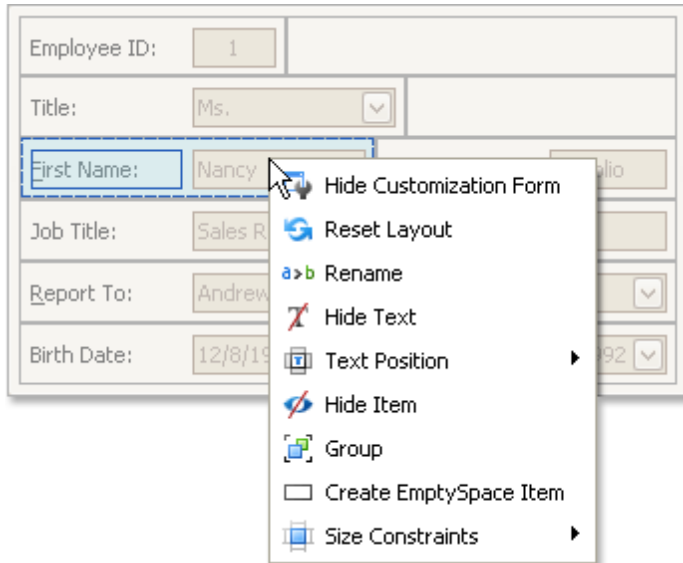
- Drag the layout item onto the **Hidden Items** list of the Customization Form.

Display a Hidden Element

Drag the required item from the Customization form's Hidden Items list onto the main form.

Change Element Layout

To perform layout customization, first invoke <u>Customization Mode</u>. After customization has been completed, <u>exit</u> customization mode.

Change Element Layout
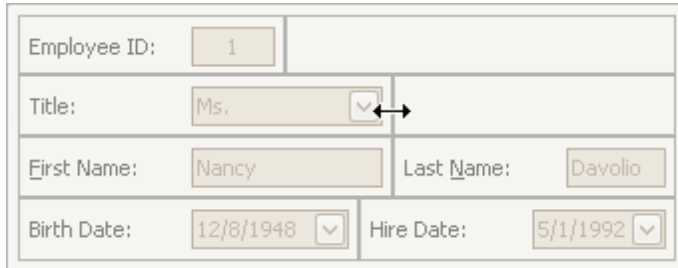
To rearrange items within the form, use drag-and-drop operations.

Resize Interface Elements

To perform layout customization, first invoke Customization Mode. After customization has been completed, exit customization mode.

Resize Layout Items
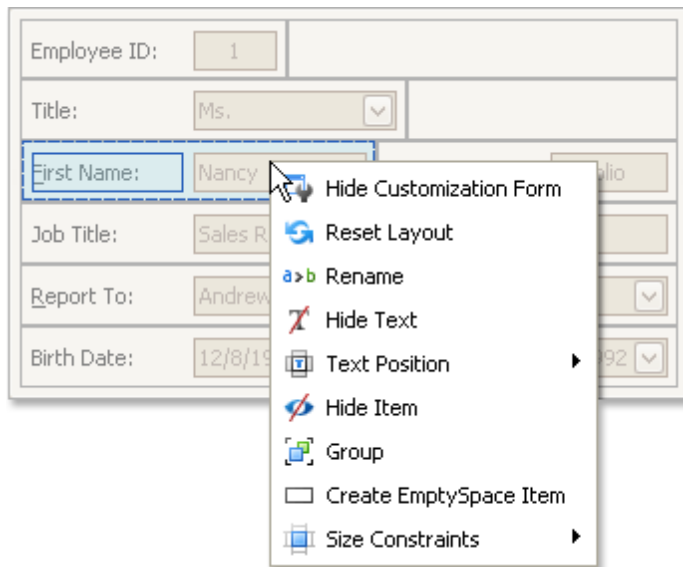
To resize a layout item, drag the layout item's edge:

Lock Size

To lock a layout item's size, and prevent it from being resized (for instance, when the size of the container changes), right-click on a layout item and select the **Size Constraints** | **Lock Size** menu command:

Add Empty Regions, Separators, Splitters and Labels

To perform layout customization, first invoke Customization Mode. After customization has been completed, exit customization mode.

Add Empty Regions

Empty regions enable greater control over element layout. They can be used, for example, if you want elements to be aligned to the right or bottom edge of a resizeable container. To add an empty region, do one of the following:

- Drag the **Empty Space Item** from the Customization form and drop at the required position on the form.
- Right-click the Layout Control and select **Create EmptySpace Item** from the context menu:
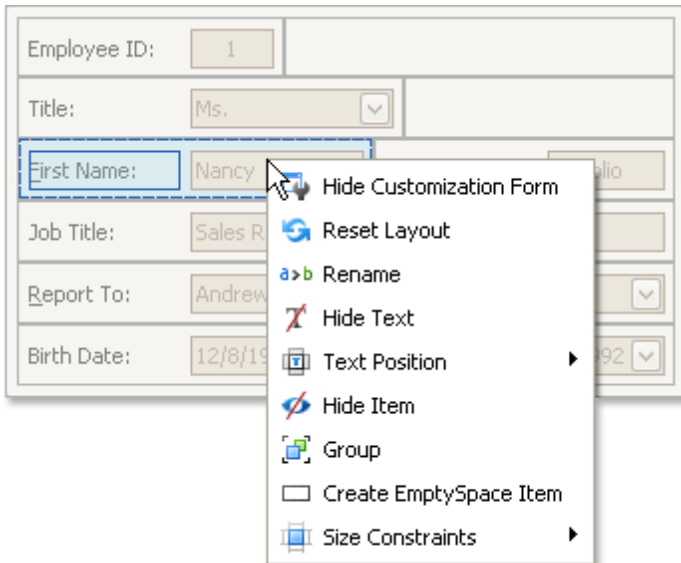
A new empty region will be added at the bottom of the Layout Control. Then, drag this item to the required position.

Add Splitters

To allow controls to be resized even when no customization is being performed, you can add a splitter between these controls. To add a splitter, drag the **Splitter** item from the Customization form onto the main form.

Add Separators

A separator is just a line that allows you visually separate the Layout Control's areas. To add a separator, drag the **Separator** item from the Customization form onto the main form.

Add Labels

To add a static text label to the Layout Control, do the following:

1. Drag the **Label** item from the Customization form onto the main form.
2. To rename the label, right-click the created label and select **Rename** from the context menu.

Change Text Label Options

To perform layout customization, first invoke Customization Mode. After customization has been completed, exit customization mode.

Rename Labels

To rename a layout item's text label, right-click the item and select **Rename** from the context menu.
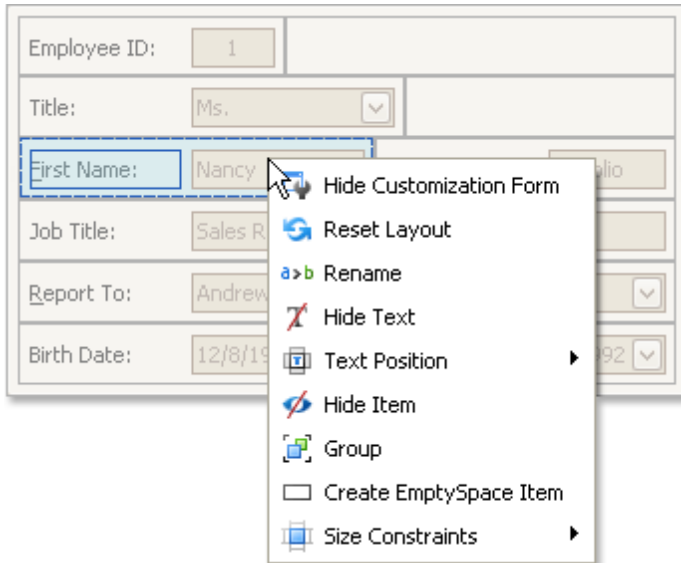
To rename a group, right-click the group's caption and select **Rename**.
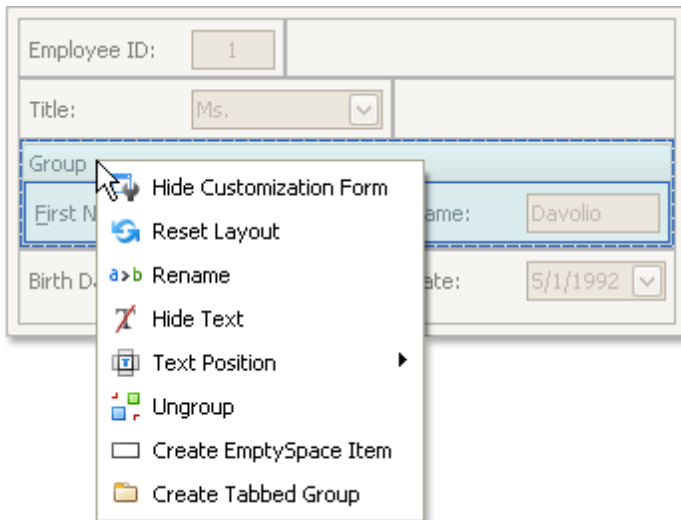
Change a Label's Visibility

To hide a layout item's text label or a group's caption, right-click the item/group and select **Hide Text** from the context menu.

To display a layout item's hidden text label or a group's hidden caption, right-click the item/group and select **Show Text**.

Change a Label's Position

To change the position of an item's label or a group's caption, right-click the item/group to open the context menu. Then, select **Text Position** and the required command from this submenu.

Work with Interface Element Groups

To perform layout customization, first invoke Customization Mode. After customization has been completed, exit customization mode.

Combine Layout Items into Groups

1. Select a layout item that is to be added to a new group by clicking it.

   You can select multiple items simultaneously by clicking them while holding the SHIFT key down.

2. Right-click any of the selected layout items and select **Group** from the context menu:
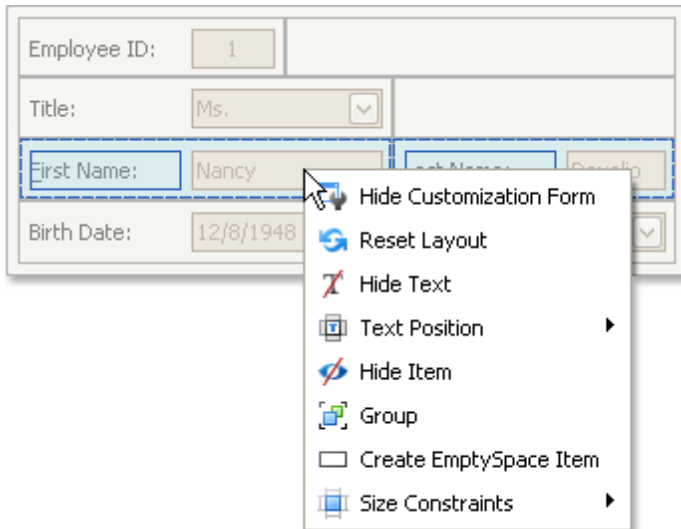
Note that only adjacent selected layout items can be combined into a group, and only if the region occupied by them forms a rectangle. Otherwise, the **Group** command is not available when right-clicking the selection.

As a result, a new group is created:
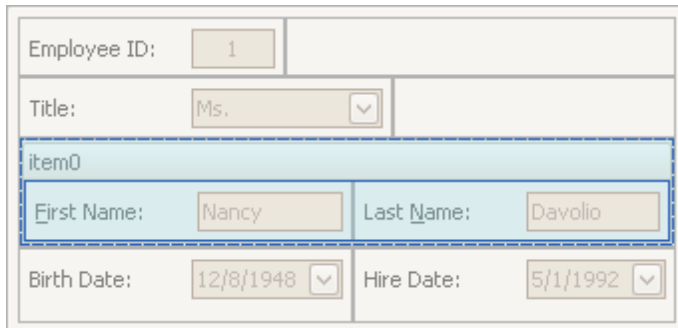
You can subsequently rename the group and customize its contents using drag-and-drop and context menus if required.

Rename Groups

Do the following:

1. Right-click the group's caption and select **Rename**:
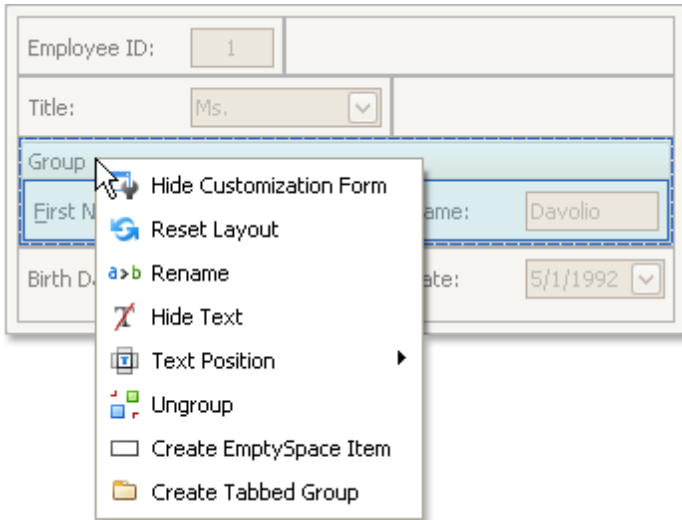
2. Type a new name and press ENTER.

Change Group Content

To customize the layout of controls within a group, use drag-and-drop.

Ungroup Elements

To ungroup elements, right-click the group's caption and select **Ungroup**:
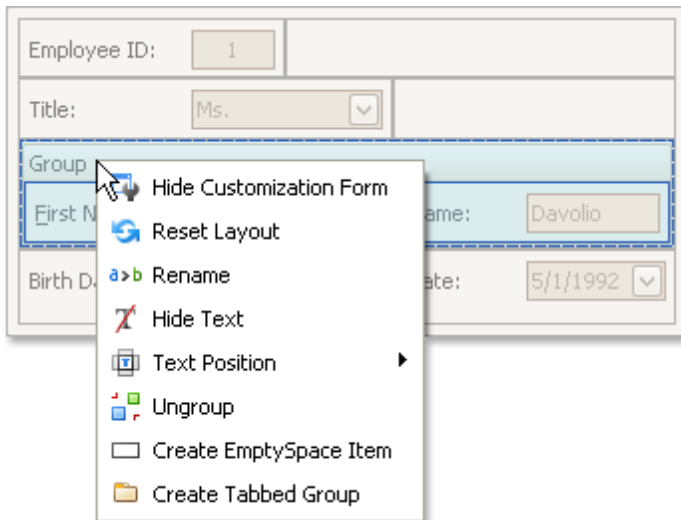
Create and Delete Tabbed Groups

To perform layout customization, first invoke Customization Mode. After customization has been completed, exit customization mode.

Combine Layout Items into a Tab Control

1. Select a layout item that is to be added to a tab control by clicking it.
   You can select multiple items simultaneously by clicking them while holding the SHIFT key down.

2. Right-click any of the selected layout items and select **Group** from the context menu:
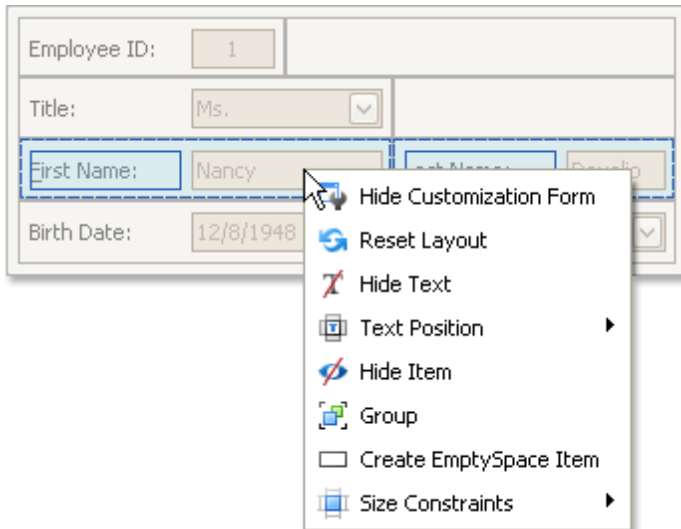
Note that only adjacent selected layout items can be combined into a group, and only if the region occupied by them forms a rectangle. Otherwise, the **Group** command is not available when right-clicking the selection.

As a result, a new group is created:
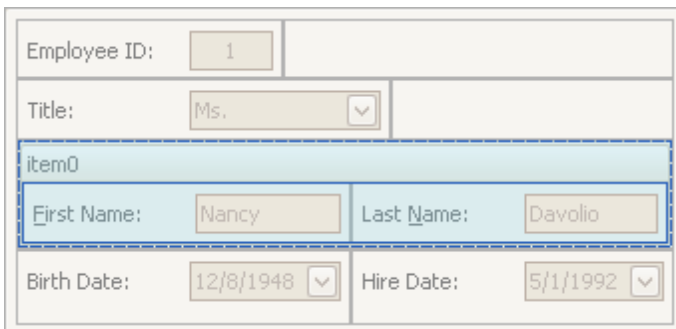
3. Right-click the group's caption and select **Create Tabbed Group**.
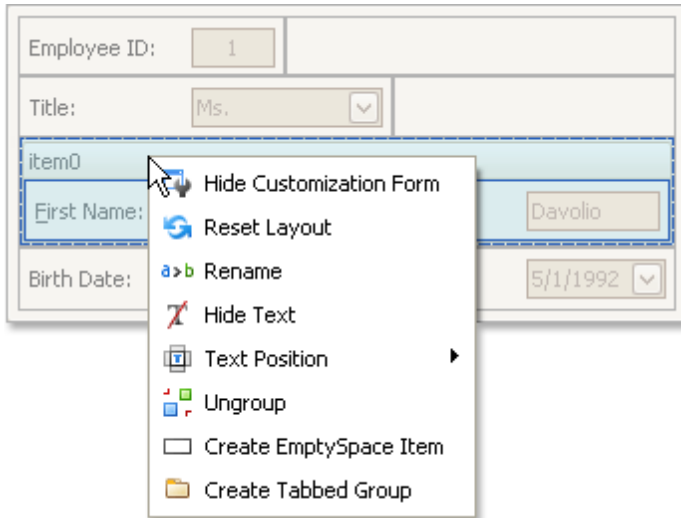
This creates a tab control with one tab displaying the contents of the original group.
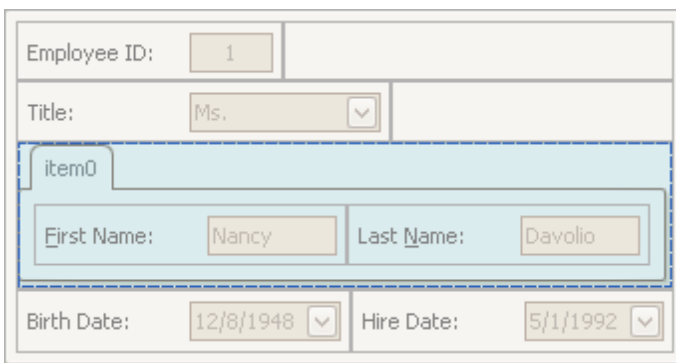
You can subsequently rename the created tab and customize the contents of tab pages using drag-and-drop and context menus, if required.

Combine Groups into a Tab Control

To transform a group into a tab control, right-click the group's caption and select **Create Tabbed Group**.
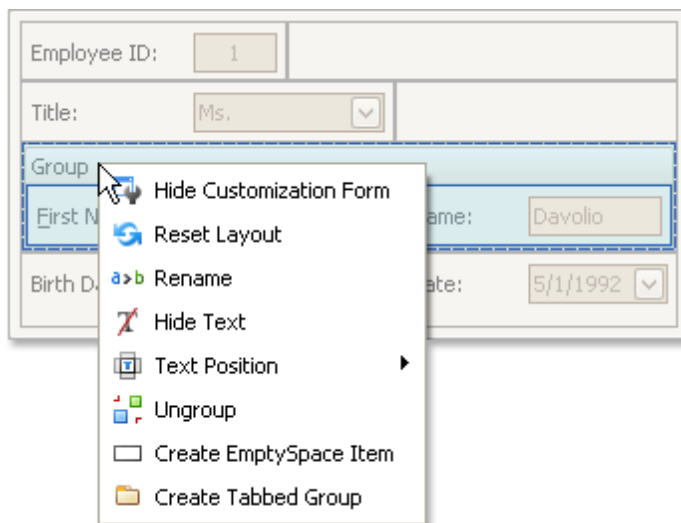
To add a group as a tab page to an existing tab control, drag the group's caption onto the tab control's header area.

Rename Tab Pages

Do the following:
    1.Right-click a tab header and select **Rename**:
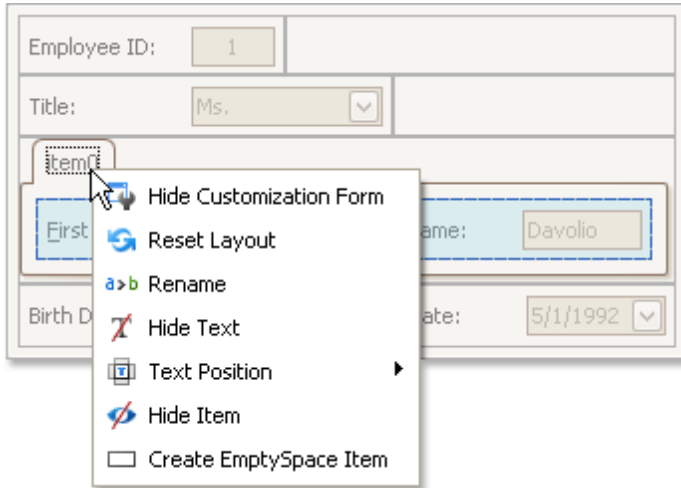
    2.Type a new name and press ENTER.

Customize Tabbed Groups

To customize the layout of controls and the order of tab pages within a tab control , use drag-and-drop.

Ungroup Tabbed Groups

To disassemble a tab control into regular groups, right-click the tab control's header area and select **Ungroup Tabbed Group**.
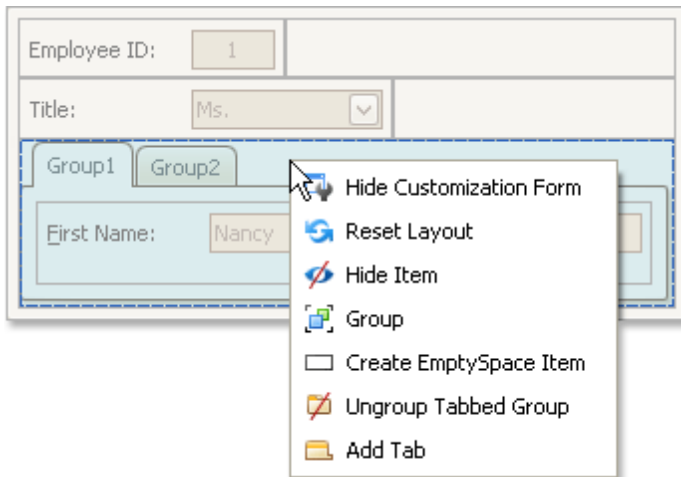
As a result, the tab control will be destroyed and all its tab pages will be displayed as regular groups, one below another.

Employee ID:	1	
Title:	Ms. ▾	

Group1

First Name:	Nancy	Last Name:	Davolio

Group2

Birth Date:	12/8/1948 ▾	Hire Date:	5/1/1992 ▾

Save and Restore Layout

Save and Restore Interface Layout

You can save the current layout of controls to an XML file, and subsequently, restore it.

Save the Layout of Controls

1. Invoke Customization mode.

2. In the Customization form that opens, click the **Save Layout** button ( ).

3. The Save As dialog will appear. It allows you to specify the XML file to which the layout is to be saved.

Load a Layout of Controls

1. Invoke Customization mode.

2. In the Customization form that opens, click the **Load Layout** button ( ).

3. The Open File dialog will appear. It allows you to specify the XML file from which the layout is to be loaded.

Navigation Bars

This section describes the capabilities provided by the Navigation Bars.
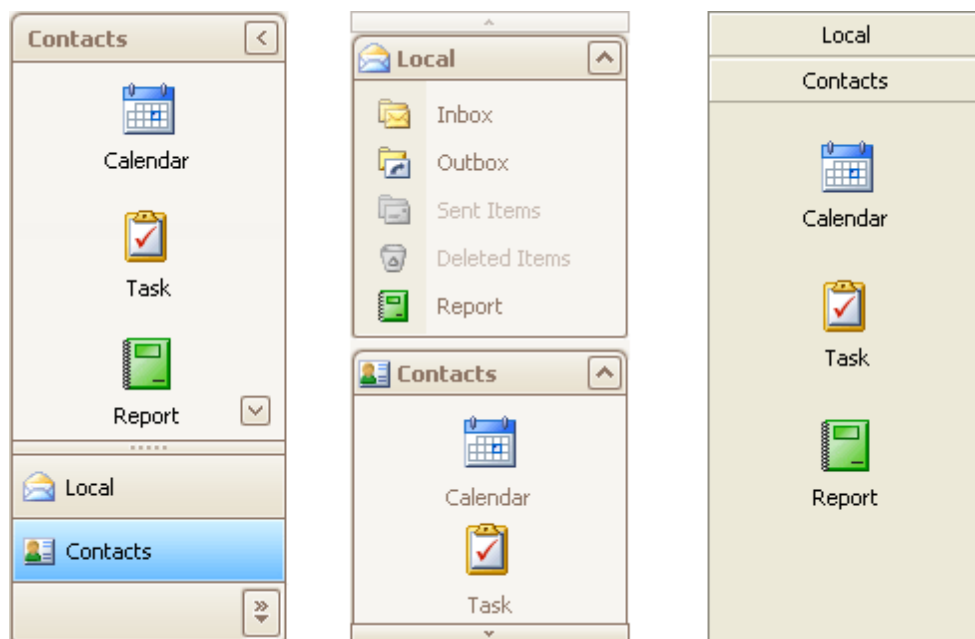
Topics in this section:

- [Navigation Pane](#)
- [Navigation Bar](#)

Navigation Pane

Expand Groups

A Navigation Pane displays only one group at a time. Other groups are collapsed and their buttons are displayed at the bottom or in the Overflow panel. You can use the horizontal splitter to control the number of group buttons shown outside of the Overflow panel.
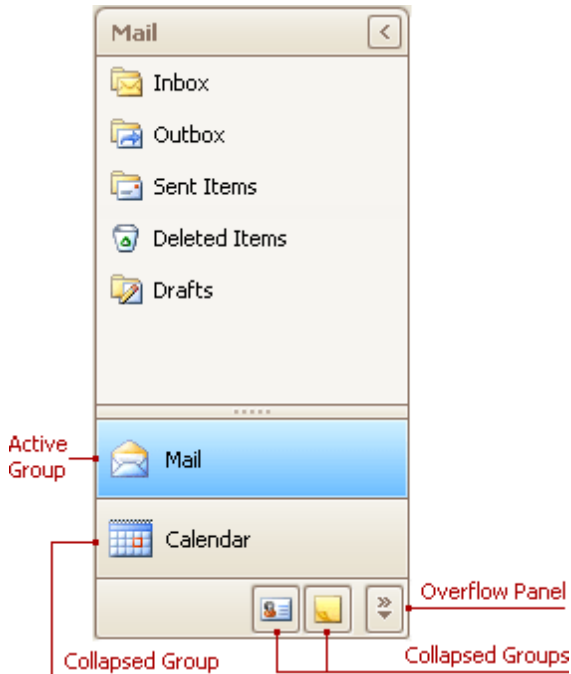
To activate a group, click its caption button.

Minimize the Navigation Pane

To minimize the Navigation Pane, click the Minimize button:
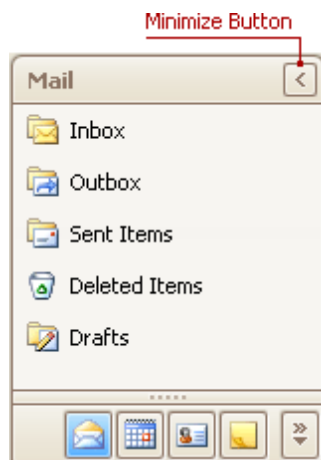
Display the Contents of the Minimized Navigation Pane

To display the contents of a minimized Navigation Pane, you can restore it to its normal state, or display its contents while it's in the minimized state.

To restore the minimized Navigation Pane to its normal size, click the Maximize button:

To display the contents of the Navigation Pane when it's in the minimized state, click the current group's button:

To display the contents of the group that is currently hidden, do the following:

1. Click the dropdown button at the bottom of the Navigation Pane:
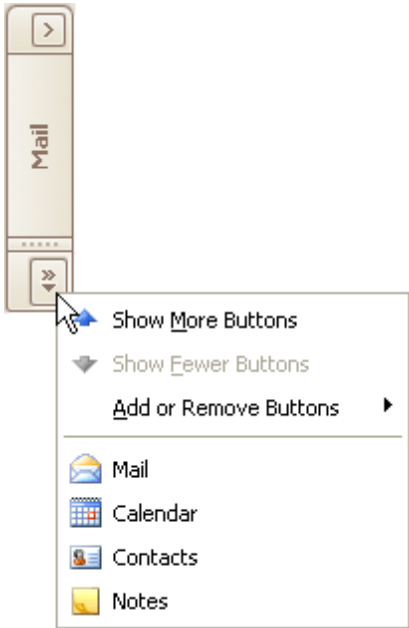
2. Select the required group in the menu that opens:
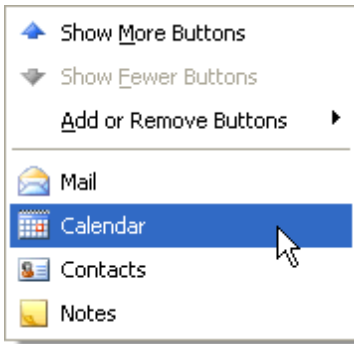
3. Click the current group's button:

Navigation Bar

Expand Groups in the Navigation Bar That Can Display Multiple Groups at One Time

Windows Explorer Bar style navigation bars can display multiple groups at one time, as in the image below:
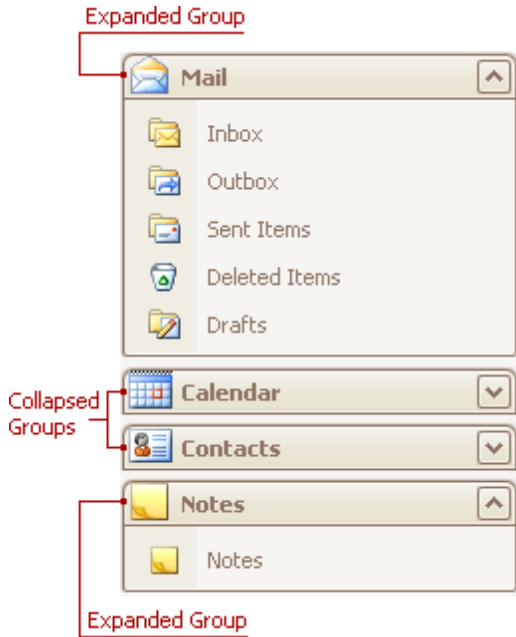
To collapse a specific expanded group, click the expand button within the group's header:

To expand a specific collapsed group, click the collapse button:

Expand Groups in the Navigation Bar That Displays One Group at a Time

To expand a specific collapsed group, click the group's button. The previously opened group will be collapsed.

Active Group

Mail

📁 Inbox
📁 Outbox
📁 Sent Items
📁 Deleted Items
📁 Drafts

Calendar

Contacts

Notes

Collapsed Groups
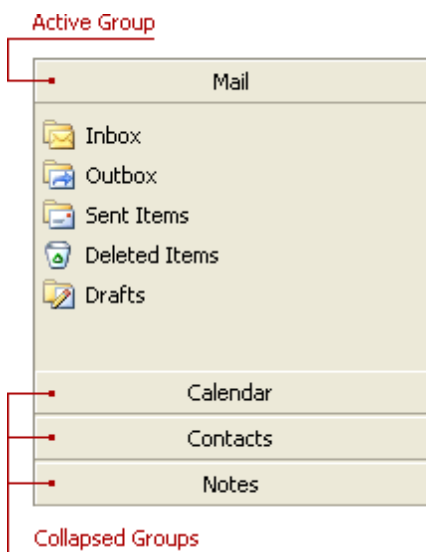
Pivot Table

This section describes the capabilities provided by the Pivot Table, which represents data in a cross-tabulated form:

Quantity		[−] Year ↑	Quarter ↑			
		[+] 1994	[+] 1995	[−] 1996		1996 Total
Sales Person ↑	Category Name ↑▼			Qtr 1	Qtr 2	
[−] Andrew Fuller	Beverages	121	274	326	348	674
	Condiments	110	327	52	220	272
	Confections	158	385	27	293	320
	Dairy Products	50	534	96	230	326
Andrew Fuller Total		439	1520	501	1091	1592
[−] Anne Dodsworth	Beverages	118	198	123	80	203
	Condiments	80	209	149	55	204
	Confections	116	18	75	156	231
	Dairy Products	70	223	103	243	346
Anne Dodsworth Total		384	648	450	534	984

Data Editing

- Edit Data in Pivot Tables

Data Presentation

- Sort Data in Pivot Tables
- Filter Data in Pivot Tables

Layout Customization

- Expand and Collapse Groups in Pivot Tables
- Hide and Display Pivot Table Fields
- Reorder Pivot Table Fields

Selection and Navigation

- Select Cells in Pivot Tables

Data Editing

Edit Data in Pivot Tables

Edit Cell Values

To edit a cell value, click the cell and specify a new value:

Perc...	CategoryName ▲					
	Beverages		Condiments		Confections	
Sales ... ▲	Extended Price	Percent Of Colu...	Extended Price	Percent Of Colu...	Extended Price	Percent Of Colu...
Andrew Fuller	$40,248.25	15%	$14,850.67	14%	$21,455.68	13%
Anne Dodsworth	$19,642.55	7%	$10,125.54	10%	$8,053.16	5%
Janet Leverling	$44,757.40	17%	13381.63	13%	$33,622.38	20%
Laura Callahan	$17,897.85	7%			$21,699.91	13%
Margaret Peacock	$50,308.21	19%			$27,768.70	17%
Michael Suyama	$9,450.20	4%			$6,859.63	4%
Nancy Davolio	$46,599.35	17%			$28,568.91	17%
Robert King	$27,963.83	10%			$14,518.98	9%
Steven Buchanan	$11,000.52	4%			$4,809.80	3%
Grand Total	$267,868.16	100%	$106,047.05	100%	$167,357.15	100%

Calculator buttons: Back, CE, C, MC, 7, 8, 9, /, sqrt, MR, 4, 5, 6, *, %, MS, 1, 2, 3, -, 1/x, M+, 0, +/-, ., +, =

Cell values are specified via editors of different types (e.g. text editor, calculator, etc.), depending on the cell data type and pivot table settings.

Edit Expressions

Specific columns allow you to set a regular or Boolean expression which will be used to calculate their values. Clicking the column header invokes the Expression Editor used to specify the expression:

To learn more about using the Expression Editor, see [Expression Editor](#).

Data Presentation

Sort Data in Pivot Tables

Values of dimension fields are always arranged in ascending or descending order. The sort order is indicated by an Up or Down arrow displayed within a corresponding dimension field's header:

To toggle the sort order for a dimension field, click this field's header:

You can also sort the values of a particular dimension field by the summary values calculated against a specific data field. To do this, right-click a column or row header, and choose the dimension field whose values should be sorted by the column/row summary values. A specific indicator marks the column/row whose summary values are used to define the sort order.

You can sort values of multiple dimension fields against a single column/row. To cancel the sorting, click the same item again, or 'Remove All Sorting' to cancel sorting for all dimension fields.

Filter Data in Pivot Tables

By default, a Pivot Table processes all records when calculating its values. Data filtering allows you to process only those records that meet your requirements.

Simple Filtering

To filter against a field, do the following:

- Hover over the field header. The filter button (▾) will be highlighted:
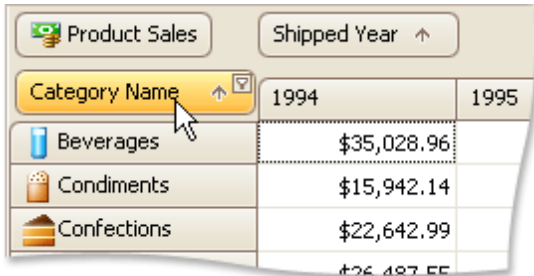
- Click the filter button to display the filter drop-down list containing field values that can be filtered:
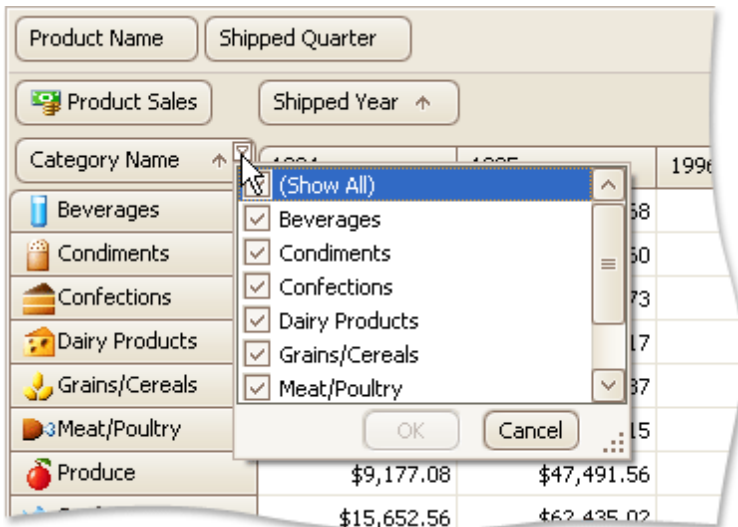
- Deselect field values that must be hidden, and select fields that must be visible. Then, click **OK** to close the drop-down filter list and apply the filter.

In this manner, you can filter data against multiple fields.

The filter drop-down, invoked for fields arranged into a group, has a tree-like interface which allows you to manipulate the values of all fields in the group via a single drop-down.
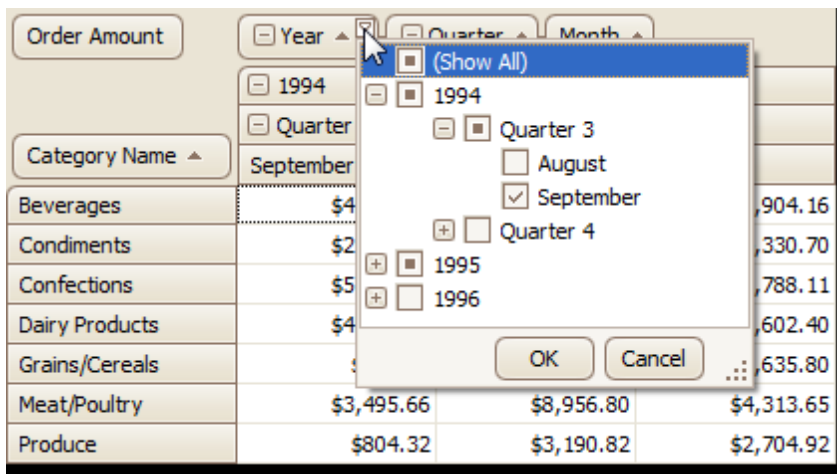
To remove filtering against a specific field, invoke the field's filter drop-down list and select **(Show All)**.

You can tell whether a field is being filtered by looking at its header. Filter buttons for these fields are visible even when you're not hovering over the field headers:
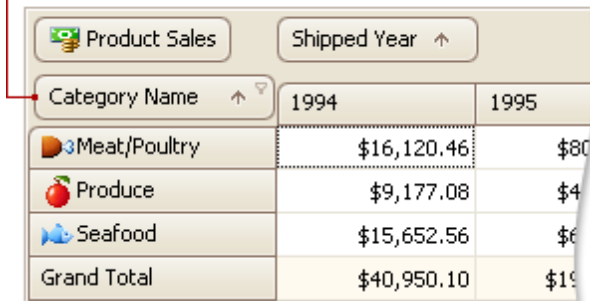
Build Complex Filter Criteria

To build complex filter criteria consisting of multiple filter clauses using various filter operators, you can use the Prefilter (Filter Editor):
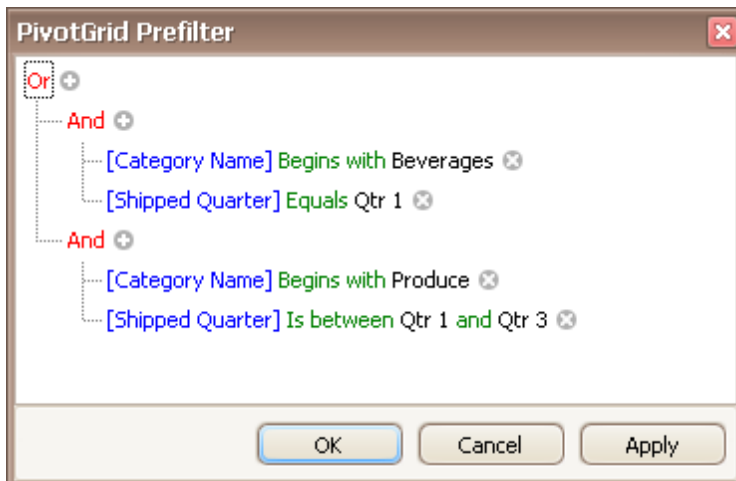
The Prefilter doesn't affect filtering via filter drop-down lists of fields (see above).

To invoke the Prefilter, click an empty space within the Pivot Table's header region and select **Show Prefilter** from the context menu:
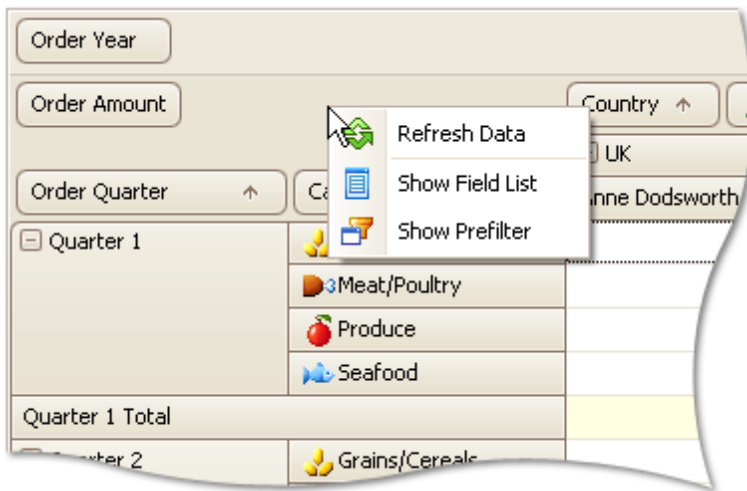
After building and applying a filter via the Prefilter, the filter panel at the bottom of the control becomes visible. It displays the current filter criteria:

To modify the current filter, open the Prefilter. You can now open it by clicking the **Edit Prefilter** button.

To temporarily disable the filter, uncheck the ☑ button.

To remove filtering, click the ☒ button.

See Filter Data via the Filter Editor for information on the filtering capabilities of the Prefilter. To learn how to create filter criteria via the Prefilter, please see Examples of Using the Filter Editor.

See Also
Filter Data via the Filter Editor
Examples of Using the Filter Editor

Layout Customization

Expand and Collapse Groups in Pivot Tables

Expand/Collapse Groups of Values

To expand/collapse groups of values, do one of the following:

- Click a corresponding expand button:

- Right-click a value that has nested values, and select the required Expand or Collapse command from the menu that opens:

Expand/Collapse Fields

To expand/collapse a group of fields, click a corresponding field expand button:

Hide and Display Pivot Table Fields

Hide Fields

To hide fields, do the following:

- Right-click on an empty space within the header region, and select **Show Field List** from the context menu that opens:
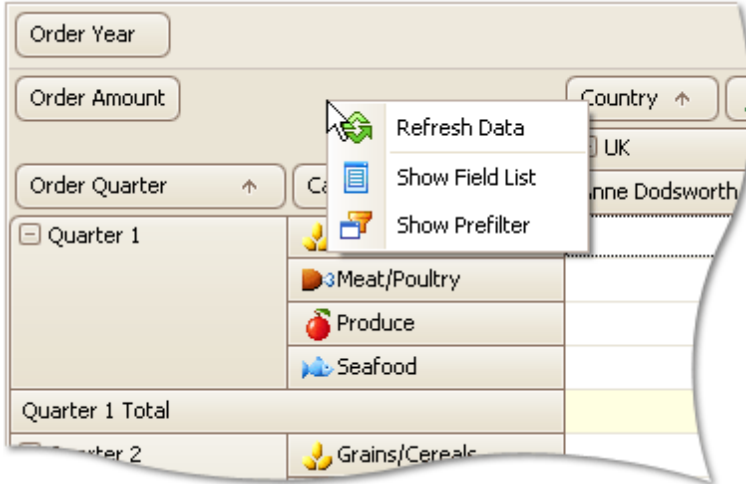
The Customization Form that provides access to hidden fields will be displayed:

Then do one of the following:

- Drag a field away from the header panel, until the cursor changes its image to the big 'X'. Then, drop the header:

- Drag and drop a field onto the Customization Form:

Display Hidden Fields

To display hidden fields do the following:

- If the Customization Form is hidden, open it by right-clicking the control's header region and selecting **Show Field List** from the context menu.
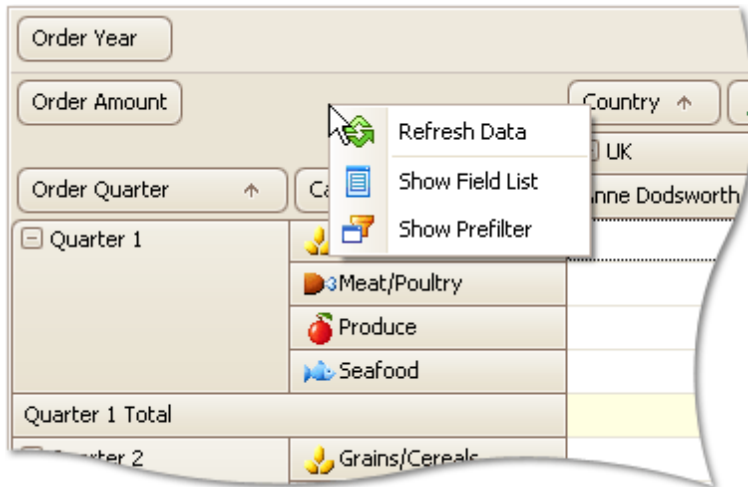
The Customization Form that provides access to hidden fields will be displayed:

Then, you can display the required field using the functionality provided by the Customization Form, as follows:

1. Click the required field in the Customization Form.

2. In the dropdown combobox, select the Pivot Table's area within which the field is to be displayed.

3. Click the **Add To** button:

Alternatively, you can drag-and-drop the field from the Customization Form onto the required area of the Pivot Table:
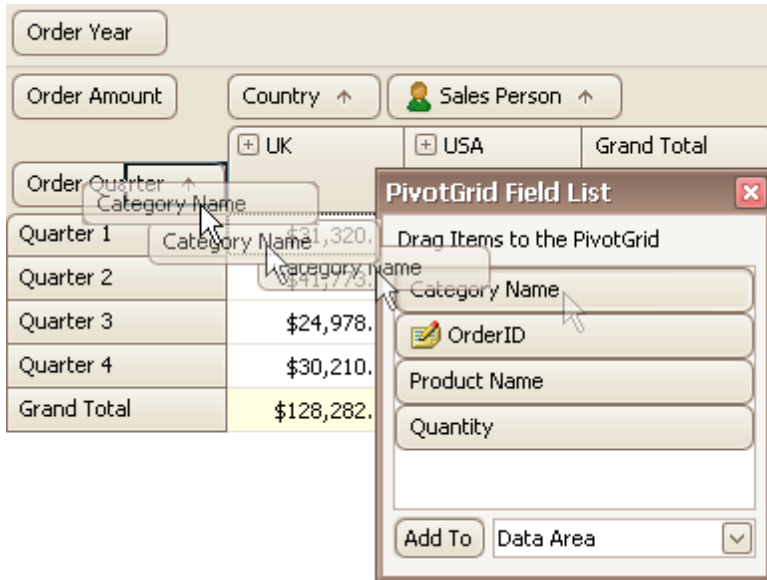
Reorder Pivot Table Fields

To move a field to another position, use drag-and-drop operations.

To move a field to a different position within the same area, you can also use the field's context menu:

- Right-click the field's header to activate the context menu:
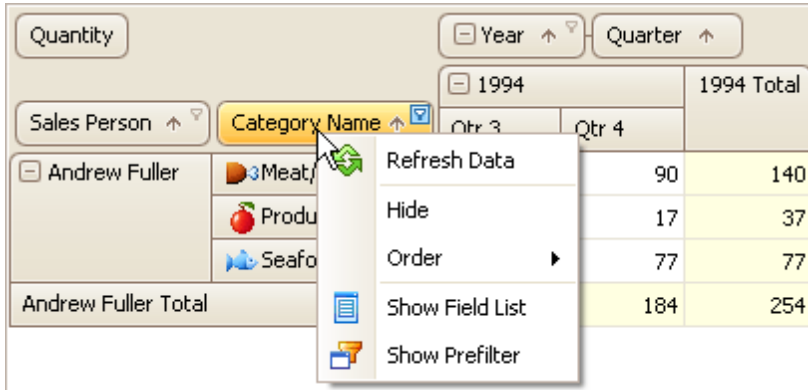
- Select the required command from the **Order** menu:
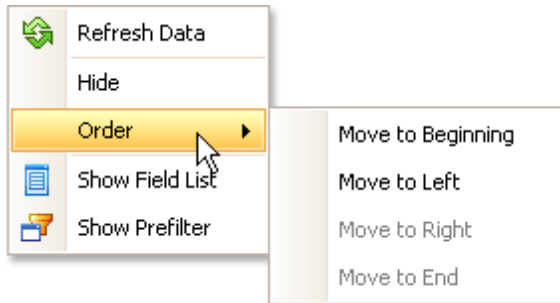
Selection and Navigation

Select Cells in Pivot Tables

Multiple cells can be selected simultaneously, and their contents can then be copied to the clipboard. This topic shows how.

Select Cells and Clear the Current Selection

To select a single cell, do one of the following:

- Click the cell.

- Focus the cell using the ARROW keys.

To select a row or column of cells, click the appropriate header:

To select a continuous range of cells, do one of the following:

- Use ARROW, PAGE UP, PAGE DOWN keys while holding the SHIFT key down.
- Press the mouse button over the starting cell and drag the mouse cursor towards the ending cell. Then release the mouse button.

- Click the starting cell. Then click the ending cell while holding the SHIFT key down.

To select a continuous range of columns or rows, do one of the following:

- Press the mouse button over the starting column/row header and drag the mouse cursor towards to the ending column or row header. Then release the mouse button.

Quantity		Year ↑ ▽	Quarter ↑		
		☐ 1994		1994 Total	☐ 1995
Sales Person ↑	Category Name ↑ ▽	Qtr 3	Qtr 4		
Janet Leverling Total		120	172	292	1523
☐ Laura Callahan	🌾 Grains/Cereals	2	28	30	389
	🍖 Meat/Poultry	40	29	69	214
	🍎 Produce	15		15	187
	🐟 Seafood	65	55	120	313
Laura Callahan Total		122	112	234	1103
☐ Margaret Peacock		195	479	674	2053

- Click the starting column or row header. Then click the ending column/row header while holding the SHIFT key down.

To select all the cells, press CTRL+A.

Select Cells While Preserving the Current Selection

Hold the CTRL key down while selecting cells.

Copy Selected Cells to the Clipboard

Press CTRL+C or SHIFT+INS.

Print Preview

This section describes the capabilities provided by the Print Preview form:
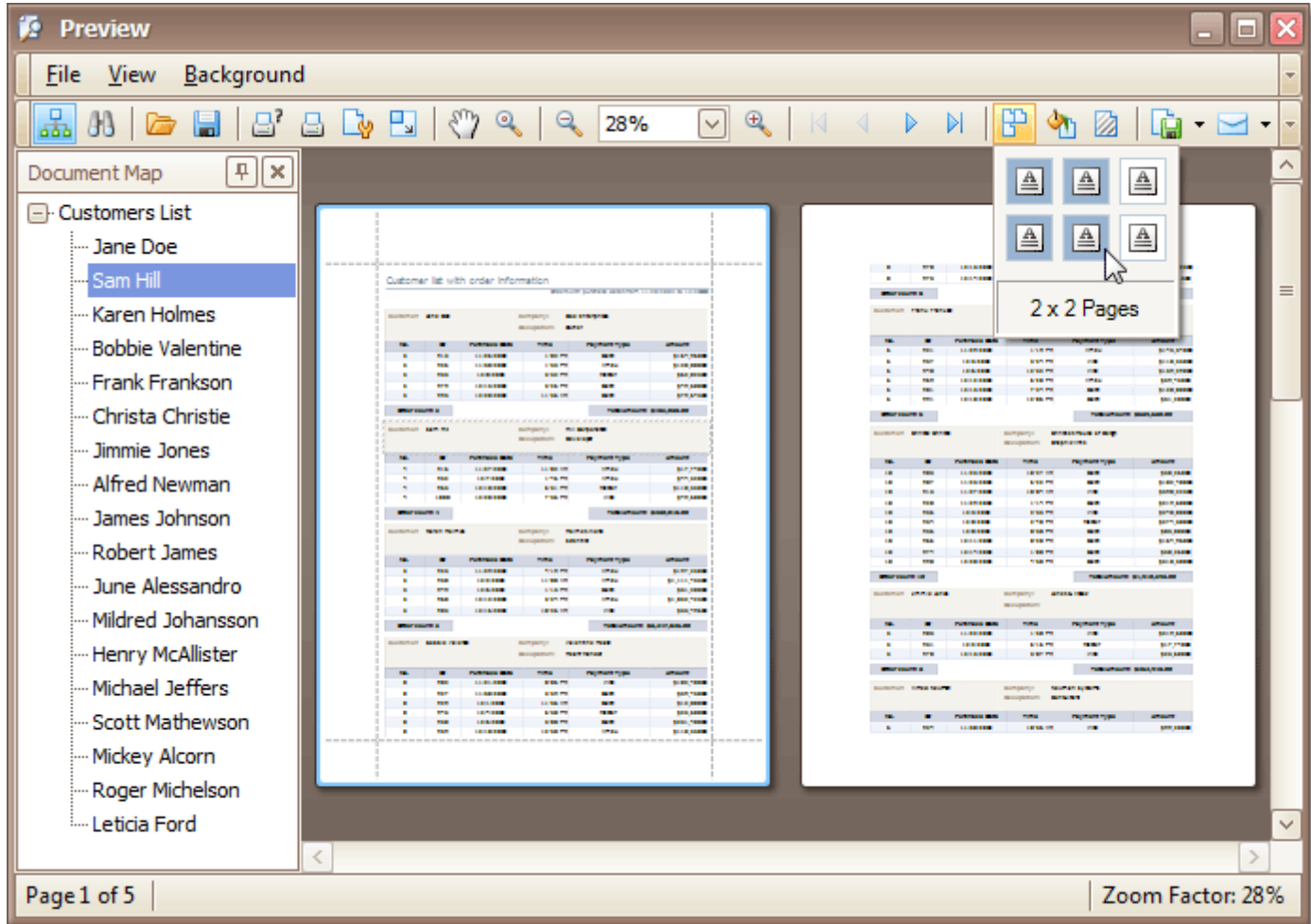
File Management
- [Save a Print Preview to a File](#)
- [Load a Print Preview from a File](#)

Printing and Page Setup
- [Print a Document via the Print Dialog](#)
- [Print a Document Using Default Settings](#)
- [Change Printing Settings via the Page Setup Dialog](#)
- [Specify Page Margins in Print Preview](#)

Headers and Footers
- [Insert Page Header and Page Footer into Printed Documents](#)
- [Insert Page Numbers into Printed Documents](#)
- [Insert Date and Time into Printed Documents](#)
- [Insert the User Name into Printed Documents](#)

Warnings and Error Messages

- [Warnings and Error Messages in Print Preview](#)

File Management

Save a Print Preview to a File

If you've modified your document, and there's a chance you'll need to print out this document version more than once, you can save the document to a file on disk. After that, you can simply load your document and print it out, without having to apply the same changes again.

To save a document to the file, click the **Save** 🖫 button on the toolbar, or press CTRL+S.

On the invoked **Save As** dialog, locate a folder where you want to store your file, enter the document's name and click **Save**.
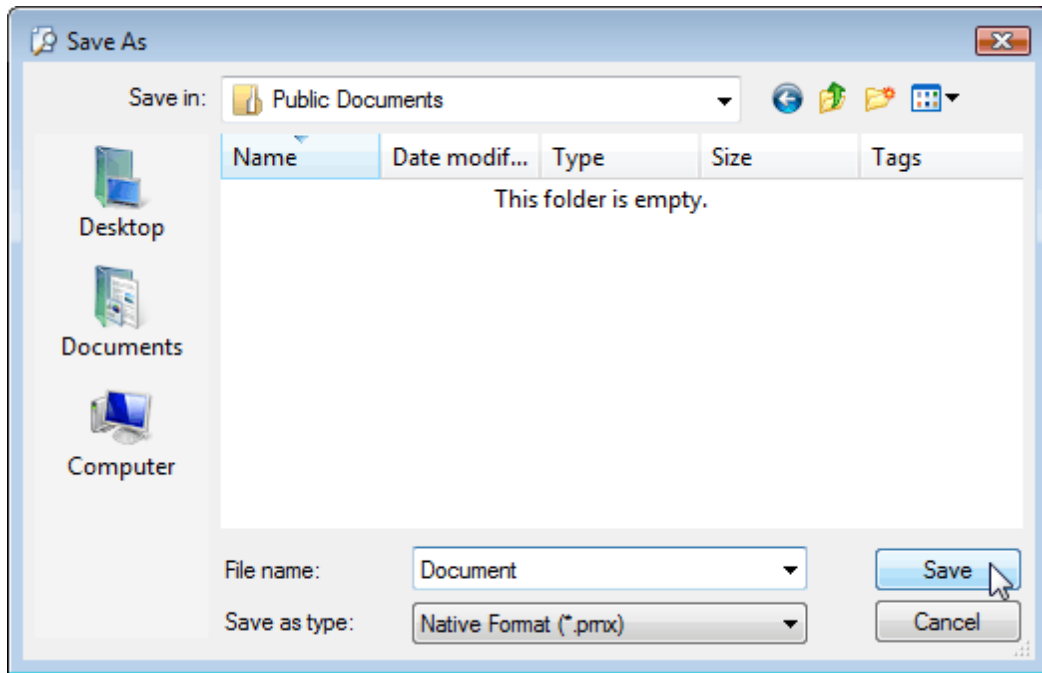
Your document will be saved with the **.prnx** file extension. Note that this extension will be added to the file name even if you enter another one.

🗏**Note**

If you [open a document](#) which was previously saved to the hard drive, it is impossible to change its page settings (e. g. page size, orientation, margins, etc.). So, the **Page Setup** and the **Scale** buttons will be disabled.

Load a Print Preview from a File

To open a previously saved document, click the **Open** 📂 button on the toolbar, or press CTRL+O.

On the invoked **Open** dialog, define the file and click **Open**.
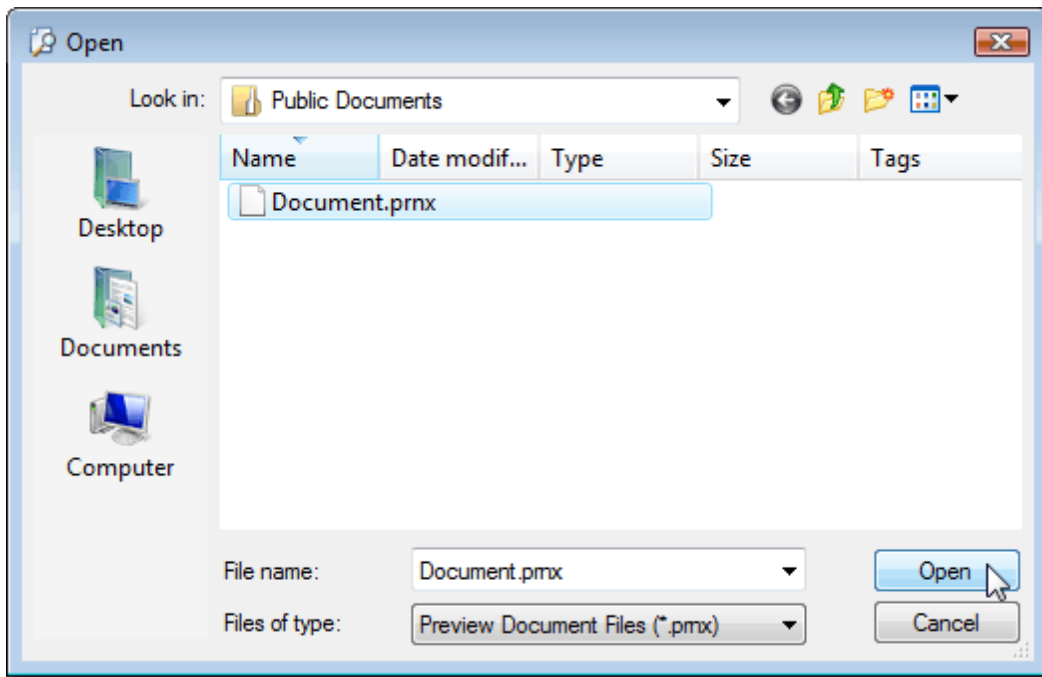
Note

If you open a document previously saved to the hard drive, it is impossible to change its page settings (e.g. page size, orientation, margins, etc.). So, the **Page Setup** and **Scale** buttons will be disabled.

Printing and Page Setup

Print a Document via the Print Dialog

To print a document, do one of the following.

- Click the **Print** 🖨 button on the toolbar, or press CTRL+P.
- On the **File** menu, click **Print...**.

The **Print** dialog will be invoked.
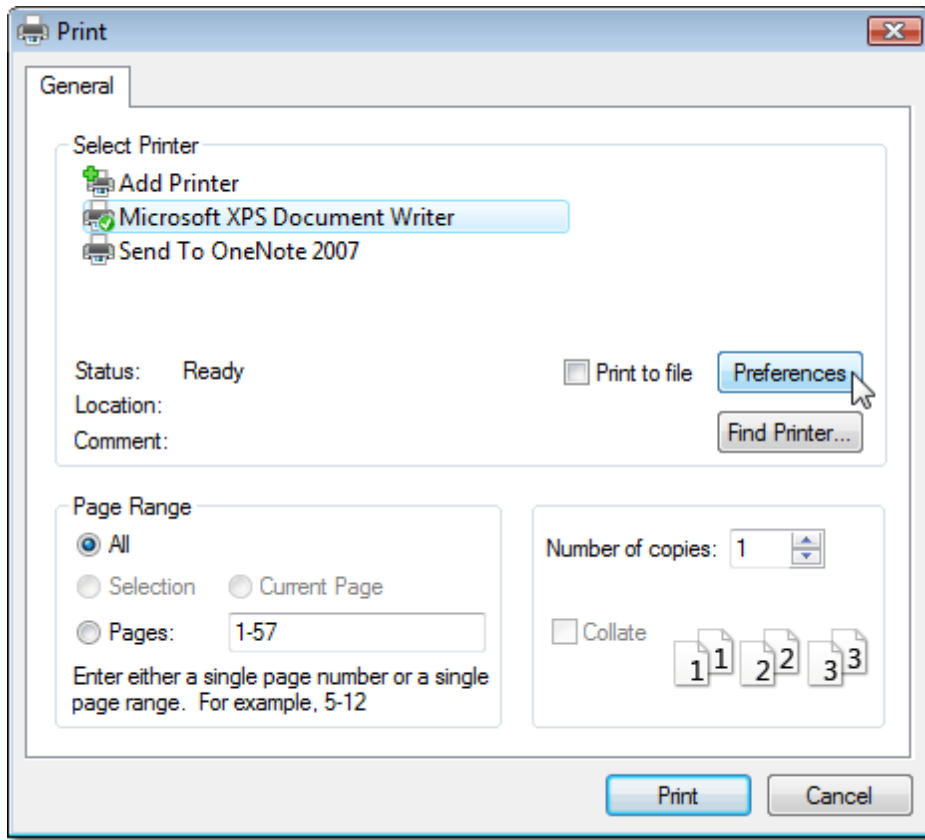
Specify the necessary settings and click **Print**.

To print a document without invoking the **Print** dialog, see the Print a Document Using Default Settings topic.
📝**Note**

If you try to print a document whose margins are outside of the printable area, you'll see a warning message. Click **Yes** to print the document anyway, if you are sure that your printer supports the specified page margins.

Print a Document Using Default Settings

To send a document directly to the default printer without customizing print settings, do one of the following.

- Click the **Quick Print** ⊟ button on the toolbar.
- On the **File** menu, click **Print**.

To learn how to select a printer, number of copies, and other printing options, refer to the Print a Document via the Print Dialog topic.

Note

If you try to print a document whose margins are outside of the printable area, you'll see a warning message. Click **Yes** to print the document anyway, if you're sure that your printer supports the specified page margins.

Change Printing Settings via the Page Setup Dialog

To start the page setup dialog box, do one of the following.

- Click the **Page Setup** button on the toolbar.
- On the **File** menu, click **Page Setup...**

The following dialog will be invoked.
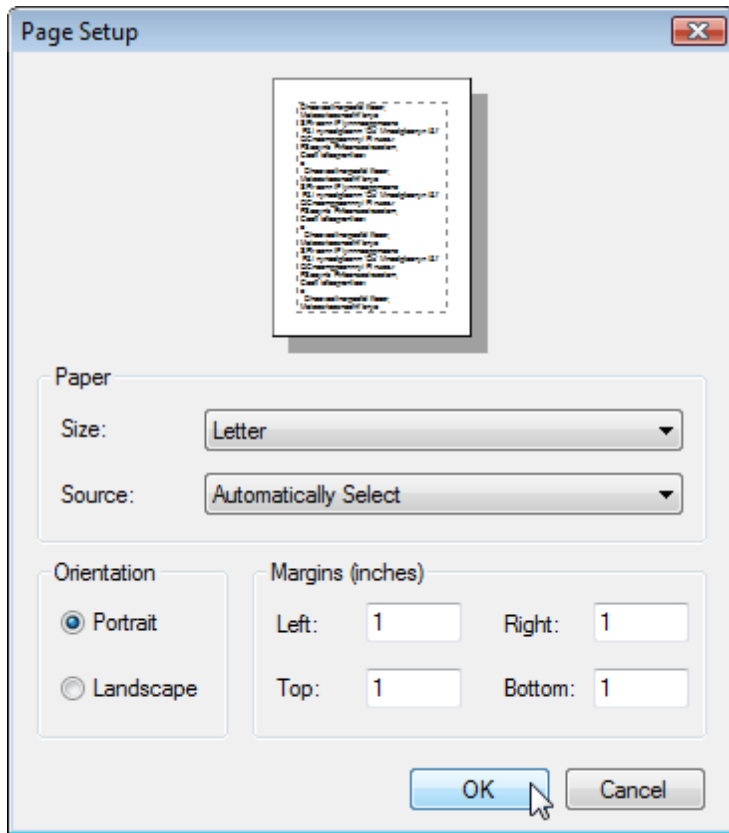
This dialog allows you to do the following:

- Change page orientation (choose Portrait or Landscape).
- Select paper size.
- Choose paper source.
- Change page margins. (This can also be done in the Print Preview dialog)

Note

If you're working with a document that was loaded from file, the **Page Setup** commands on the toolbar and main menu will be disabled.

Specify Page Margins in Print Preview

To set document page margins, do one of the following.

- **Use the Page Setup dialog**

  In the Page Setup dialog, enter the required top, left, bottom and right page margins' values into the appropriate editors.

  Then, click OK to save changes.

- **Use drag-and-drop in the Print Preview window**

  To use this approach, point to the dotted line indicating the margin's border. When the pointer changes to ✥, drag the pointer to move the margin.
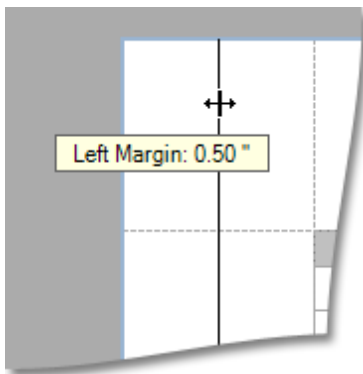
Note

If you're working with a document that was loaded from file, it is impossible to change its page settings (e.g. page size, orientation, margins, etc.).

Headers and Footers

Insert Page Header and Page Footer into Printed Documents

To insert a page header and page footer into a document, click the **Header and Footer** button on the toolbar. This will invoke the **Header and Footer** dialog.
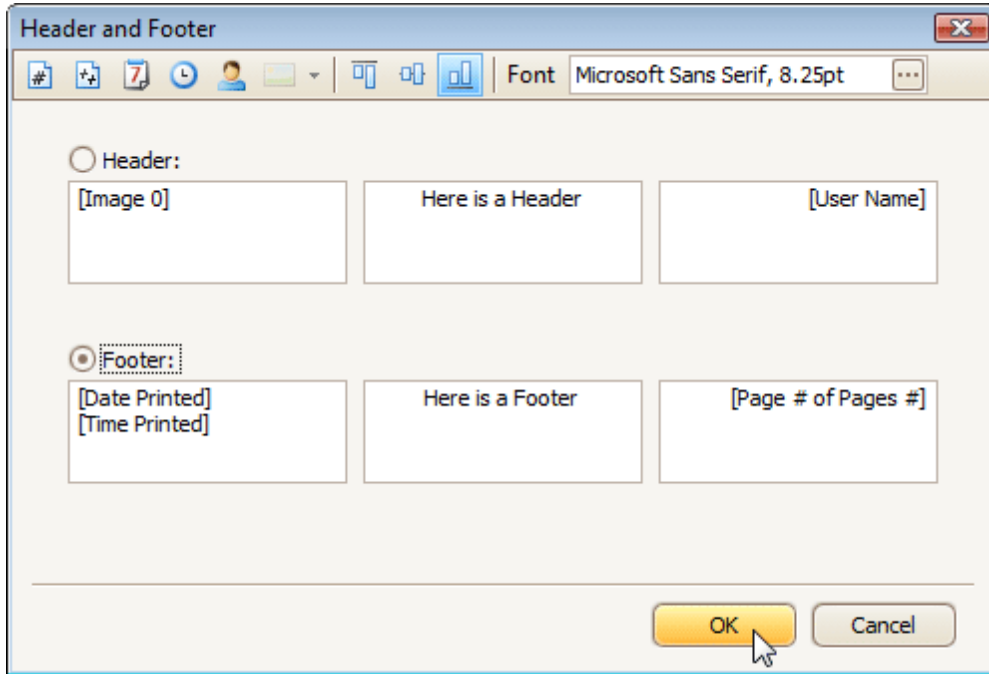
Specify header and footer content using the appropriate text boxes, depending on the required alignment.

If needed, you can also adjust vertical alignment and font settings.

Click OK to save changes and close the dialog.

Insert Page Numbers into Printed Documents

To insert or remove page numbers from a document, first invoke the Header and Footer dialog.

Focus a text box, depending on the required alignment, and do one of the following:

- If you need to simply display the current page number, click the **Page Number** button.
- If you need to display the page number out of the total number of pages, click the **Page # of Pages #** button.

When you click one of these buttons, the dialog adds an alias within square brackets at the current cursor position. You can surround this alias with any text you like. If you no longer need page numbers in your document, delete this alias.

Click OK to save changes and close the dialog.

Insert Date and Time into Printed Documents

If you need to display the date and time when a document is printed, first invoke the Header and Footer dialog.

Then, click on the appropriate text box, depending on the required alignment, and do the following:

- To add a date stamp, click the **Date Printed** ⬜ button.
- To add a time stamp, click the **Time Printed** 🕐 button.

When you click one of these buttons, the dialog adds an alias within square brackets at the current cursor position. You can surround this alias with any text you like. If you no longer need to display date and time in your document, delete this alias.

Click OK to save changes and close the dialog.

Insert the User Name into Printed Documents

To insert user name into a document's header or footer, first invoke the Header and Footer dialog.

Then, focus an appropriate text box, depending on the required alignment, and click the **User Name** button.

When you click this button, the dialog adds an alias within square brackets at the current cursor position. You can surround this alias with any text you like. If you no longer need to display user name in your document, delete this alias.

Click OK to save changes and close the dialog.

Insert a Logo into Printed Documents

To insert a logo into a document's header or footer, first invoke the Header and Footer dialog.

Then, focus an appropriate text box, depending on the required alignment, and click the **Image** button.

Select the image from the dropdown list.

Click OK to save changes and close the dialog.

Note

If the **Image** button is disabled, then logo insertion is not supported by your software vendor.

Scaling

Scale Print Preview by Entering a Zoom Factor

To scale a document, click the **Scale** ⬚ button on the toolbar. The **Scaling** dialog will be invoked.

Set the required percentage value in the editor.

⊙ Adjust to: 80 ⬚ % normal size

Click **OK** to save changes and close the dialog.

Note

If you're working with a document loaded from file, you cannot use scaling.

Scale Print Preview by Specifying Width in Pages

To scale a document to fit into X pages, click the **Scale** button on the toolbar. The **Scaling** dialog will be invoked.

Set the required number of pages in the editor.

Click **OK** to save changes and close the dialog.

Note

If you're working with a document loaded from file, you cannot use scaling.

Zooming

Zoom Print Preview In or Out

Zoom In and Out of a Document

- To zoom in a document, click the **Zoom In** button on the toolbar, or press CTRL+PLUS SIGN.
- To zoom out of a document, click the **Zoom Out** button on the toolbar, or press CTRL+MINUS SIGN.

To zoom in or out of a document, you can also hold down CTRL and rotate the mouse wheel.

Use the Magnifier Tool

Use the **Magnifier Tool** to switch between 100% and "fit whole page" views. Simply click anywhere in the document, to toggle views.

Zoom Print Preview by Entering a Zoom Factor

To zoom to a specific zoom factor, do one of the following.

- Click the **Zooming** dropdown list button. The following list will be invoked.

100%
500%
200%
150%
100%
75%
50%
25%
Page Width
Text Width
Whole Page
Two Pages
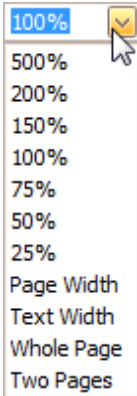
Choose one of the zoom factor presets.

- You can manually enter any value into the **Zooming** box.

46%

Zoom Print Preview to Show Whole Pages or Fit Content

Zoom Documents to Fit Page Content

To zoom to the page or text width, click the **Zooming** box. The following list will be invoked.
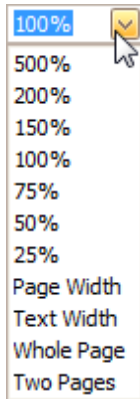
- To zoom to the page width, click **Page Width**.
- To zoom to the text width, click **Text Width**.

Note

If the preview window will be resized later, the current zoom factor will also be changed, to fit the current page or text width.

Zoom Documents to Display Whole Pages

First, invoke the zooming dropdown (see above).

- To display one whole page at a time, click **Whole Page**.
- To fit two pages into the current view, click **Two Pages**.

Note

If the preview window will be resized later, the current zoom factor will be also changed in order to fit one or two pages.

If you want to preview more pages simultaneously, refer to the Show Two or More Pages in Print Preview topic.

Show Two or More Pages in Print Preview

To preview two or more pages at one time, click the **Multiple Pages** button on the toolbar.

Then, in the invoked dialog, hover over the page icons, depending on the required number of pages to preview.
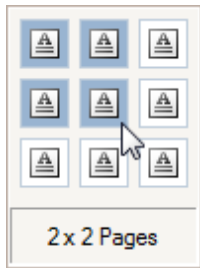
When the required number of pages has been selected, click the popup window to close it and apply changes to the document view.

Viewing and Navigating

Navigate Between Pages in Print Preview

To navigate between pages, use the scrollbars or navigation buttons ◄ ◄ ▶ ▶ on the toolbar. These buttons allow you to switch to the first, previous, next, or last page of a document.

Use the Hand Tool in Print Preview

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The **Hand Tool** enables you to scroll content by dragging the document instead of using scrollbars.

To activate the **Hand Tool**, click the **Hand Tool** button on the toolbar.

Then, after you click a document's page, the mouse pointer is changed from to . Drag the mouse pointer to scroll the document.

Navigate in Print Preview Using Bookmarks

If a document contains bookmarks, you can use the **Document Map** feature to quickly navigate to a required section.

Show or Hide the Document Map

To show or hide the document map, click the **Document Map** button on the toolbar.

Go to a Specific Bookmark

To go to the specific bookmark, click it in the Document Map, and the appropriate text will be highlighted in the document.

Search for a Specific Text in Print Preview

To search for a specific text within a document, click the **Search** 🔍 button on the toolbar, or press CTRL+F. The **Find** dialog will be invoked.
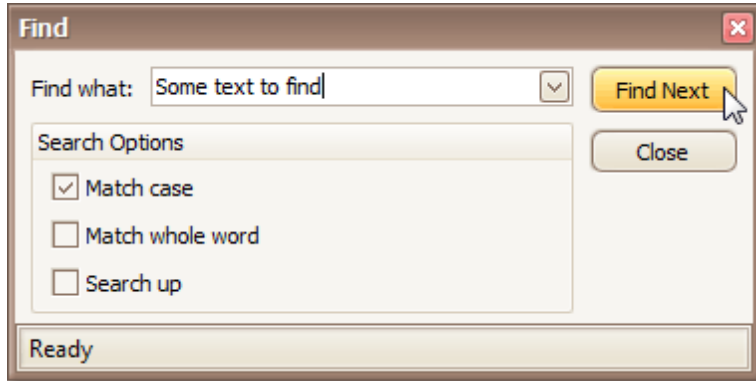
In this dialog, you can input the text to find, and specify whether to match case or the whole word during the search, or set the search direction.

To start searching, or search again, click **Find Next** or press ENTER.

Switch Print Preview Display Mode

Enable the Facing Layout View

To enable the facing layout view, on the **View** menu, point to **Page Layout**, and then click **Facing**.
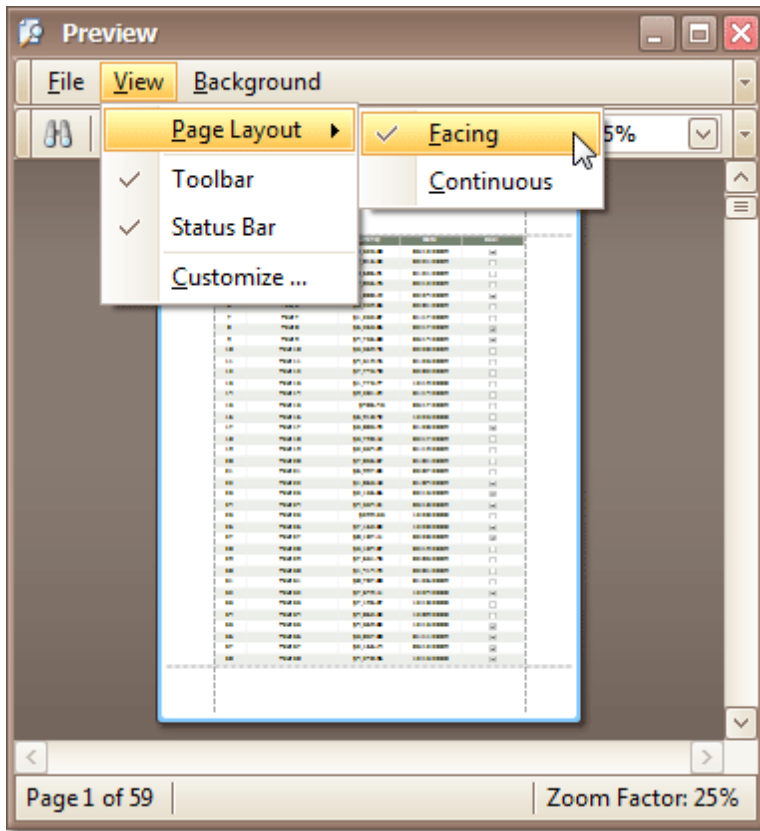
This allows you to preserve an entire page view, whether you resize the preview window, scroll a document or choose a multiple page view mode.

Enable the Continuous Layout View

To enable the continuous layout view, on the **View** menu, point to **Page Layout**, and then click **Continuous**.
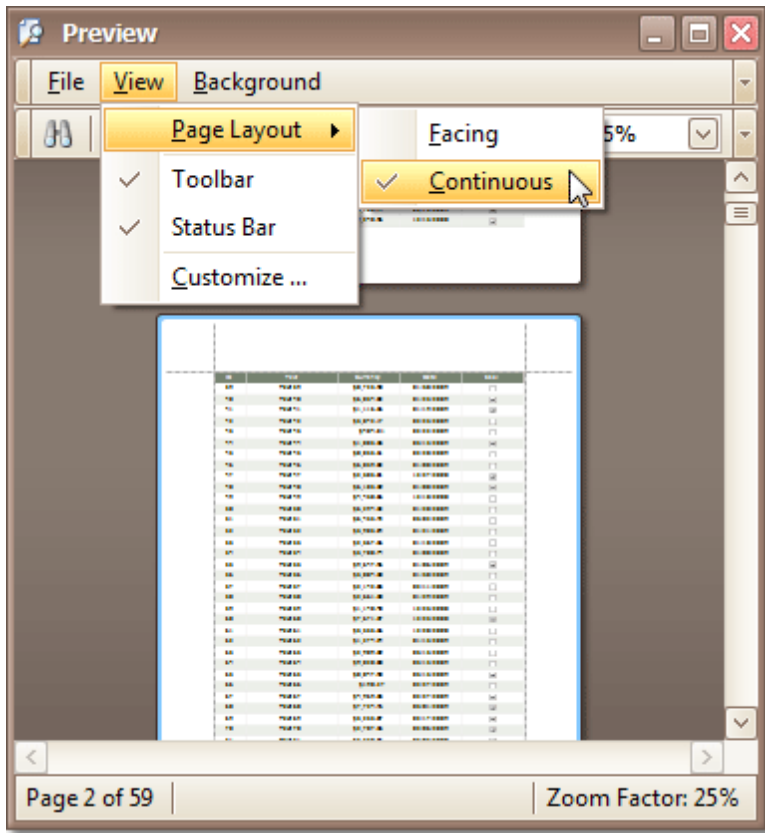
This allows you to continuously scroll a page layout view.

Watermark and Background

Change Watermark and Background Settings in Print Preview

Invoke the Watermark Dialog

To add a watermark to a document, click the **Watermark** ▧ button on the toolbar, or click **Watermark...** on the **Background** menu. The **Watermark** dialog will be invoked.

Add a Text Watermark

To add a text watermark, open the **Text Watermark** tab.
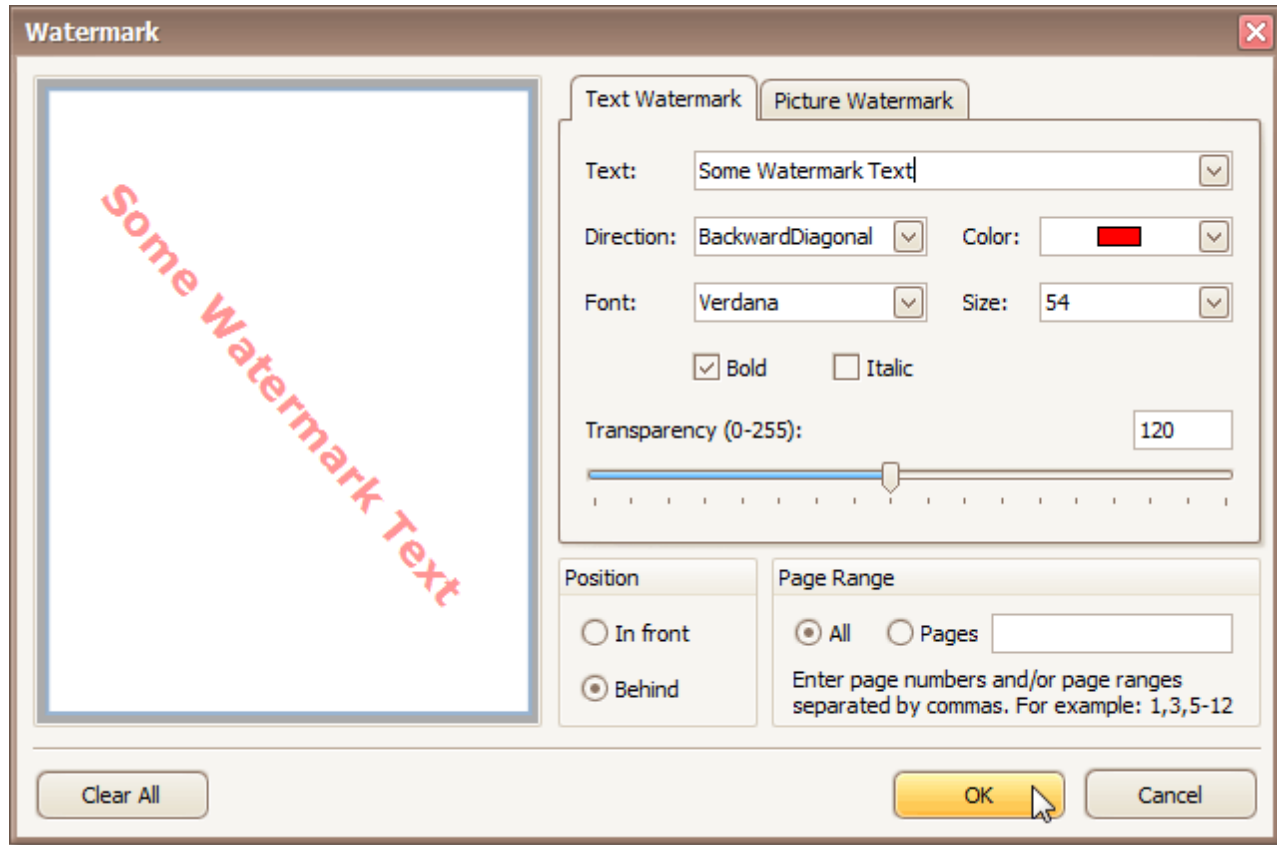
Input the required text, or choose one from the provided options. If required, define other text properties, such as direction, color, font, size, transparency, etc.

Add an Image Watermark

To add a picture watermark, open the **Picture Watermark** tab.
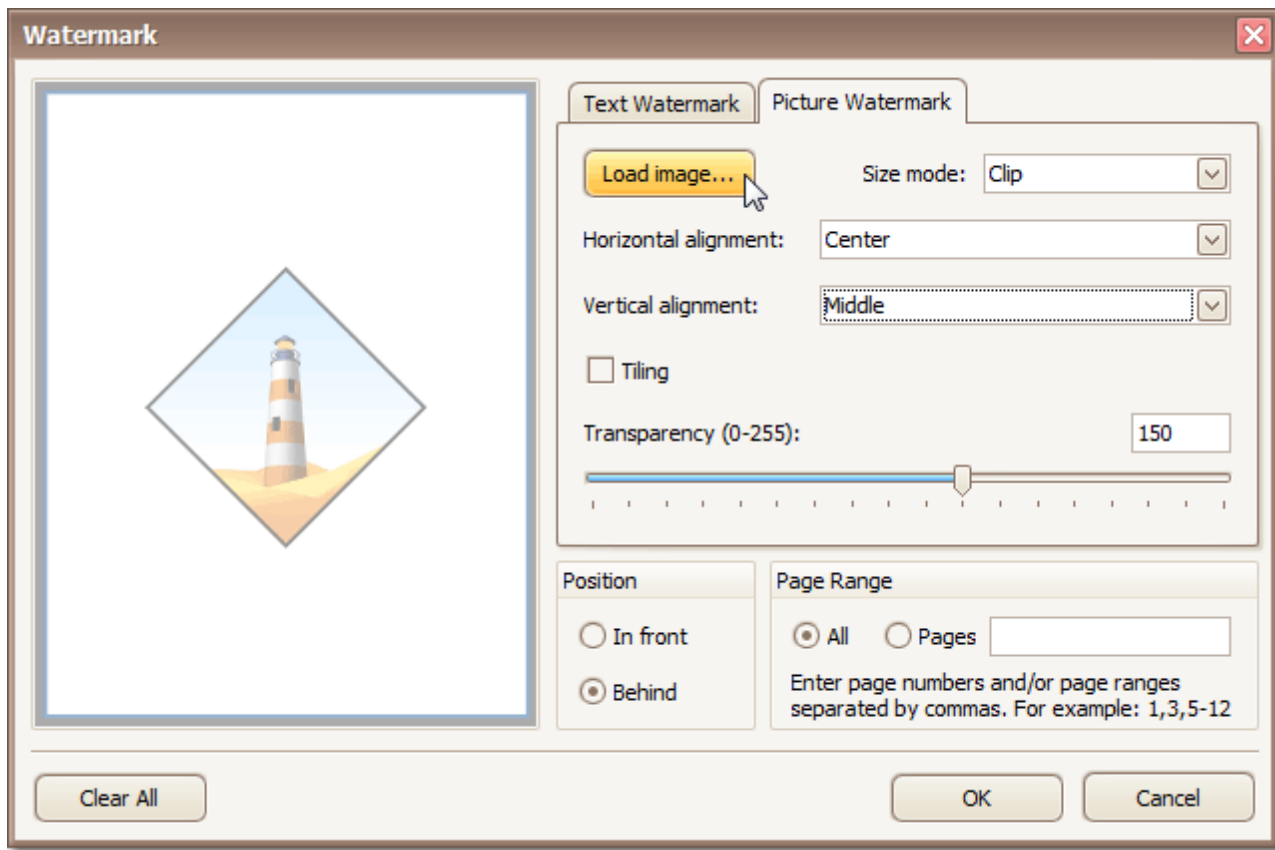
Load the image and customize its properties, such as size mode, horizontal and vertical alignment, tiling, transparency, etc.

Specify the Pages Where you will Display Your Watermark

Specify the required pages to apply a watermark in the **Page Range** section of the dialog.
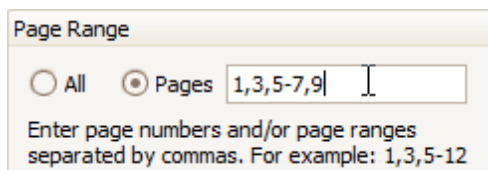
Separate page numbers with commas, or specify page ranges using a dash.

Add a Background Color to a Document

To add a background color to a document, click the **Background Color** button on the toolbar, or click **Color...** on the **Background** menu. The **Background Color** dialog will be invoked.
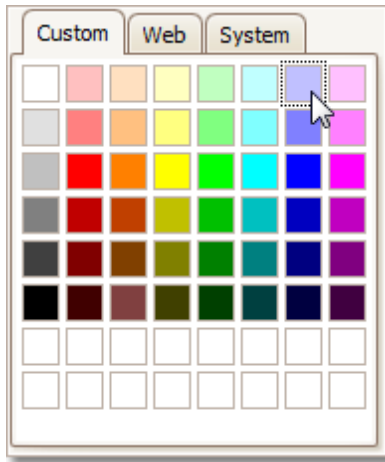
Then, choose a color from the **Custom**, **Web** or **System** palettes.

See Also

[Remove a Watermark in Print Preview](#)

Remove a Watermark in Print Preview

To remove a watermark from a document, invoke the <u>Watermark dialog</u>. Click **Clear All**, then click OK to save changes and close the dialog.

See Also
<u>Change Watermark and Background Settings in Print Preview</u>

Exporting

Exporting from Print Preview

There are two options available for a document being exported to.

- Export Document to a File on Disk
- Send Exported File via E-Mail

Export Document to a File on Disk

To export a document and save the resulting file on your hard drive, do one of the following.

- On the toolbar, click the arrow near the **Export Document...** button .
- On the **File** menu, choose the **Export Document...** item.

Choose the required format from the invoked list.
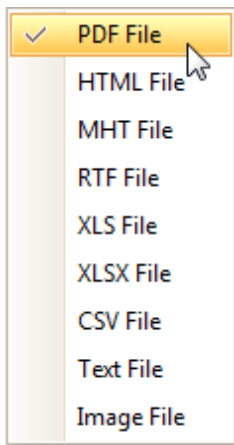
Then, you may be prompted to define format-specific options. See corresponding help topics in this documentation for details, e.g. PDF-Specific Export Options.

Once you've specified exporting options, the **Save As** dialog appears, allowing you to enter the file name. Then, the following message will be invoked.
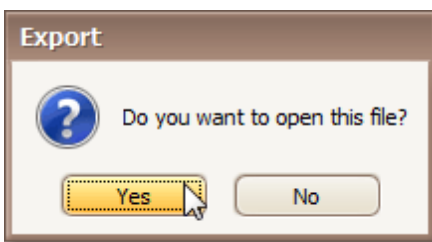
Click **Yes**, if you want to preview the exported file.

Send Exported File via E-Mail

To send the resulting PDF file via e-mail, do one of the following.

- On the toolbar, click the arrow near the **Send via E-Mail...** button .
- On the **File** menu, choose the **Send via E-Mail...** item.

Choose the required format in the invoked list.
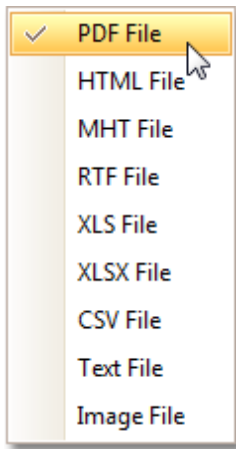
Then, you may be prompted to define format-specific options. See corresponding help topics in this documentation for details, e.g. PDF-Specific Export Options.

Once you've specified exporting options, the **Save As** dialog appears, allowing you to enter the file name.

Finally, the created document will be attached to a new empty message, created in your default mail program.

PDF-Specific Export Options

When exporting a document, you can define PDF-specific exporting options using the following dialog.
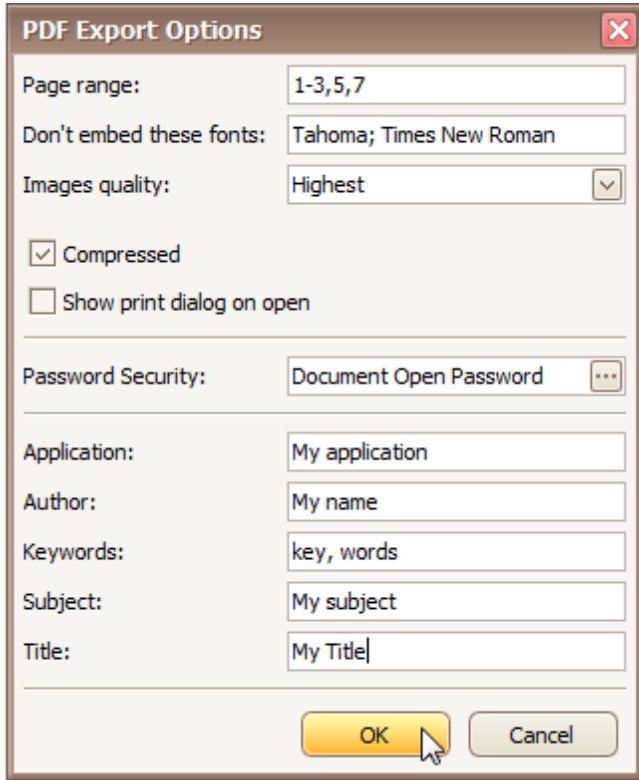
General Options

- **Page range**
  Define the pages which will be included in the complete file. Separate the pages with a comma, set a range of pages with a dash.
- **Don't embed these fonts**
  Define the fonts that will not be embedded in the complete file, to reduce the file size. Separate the fonts with a semicolon.
- **Images quality**
  Choose the required document's image quality level. The higher the quality, the bigger the file, and vice versa.
- **Compressed**
  Check this to enable compression.
- **Show print dialog on open**
  Check this, if desired.

Password Security Options

These options allow you to adjust the security options of the resulting PDF file (e.g. enable open document, editing, printing and copying protection, and specify which changes are allowed).

Additional Options

You can also fill the **Application**, **Author**, **Keywords**, **Subject**, and **Title** fields.

See Also
Exporting from Print Preview

HTML-Specific Export Options

When exporting a document, you can define HTML-specific exporting options using the following dialog.
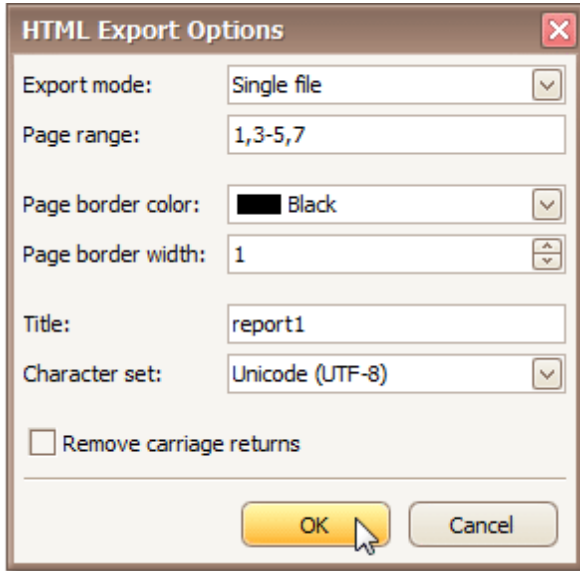
- **Export mode**
  The following modes are available.

  - The **Single file** mode allows export of a document to a single file, without preserving the page-by-page breakdown.

  - The **Single file page-by-page** mode allows export of a document to a single file, while preserving page-by-page breakdown. In this mode, the **Page range**, **Page border color** and **Page border width** options are available.

  - The **Different files** mode allows export of a document to multiple files, one for each document page. In this mode, the **Page range**, **Page border color** and **Page border width** options are available.

- **Page range**
  Specify the pages which will be included in the resulting file. Separate page numbers with commas; set page ranges using hyphens.

- **Page border color**
  Choose the color for the page border from the available palettes.

- **Page border width**
  Define the page border width.

- **Title**
  Enter the required document title.

- **Character set**
  Define the character set for your HTML document.

- Also, using the appropriate check box, you can choose whether to remove carriage returns.

See Also
MHT-Specific Export Options

MHT-Specific Export Options

When exporting a document, you can define MHT-specific exporting options using the following dialog.

- **Export mode**
  Choose one from the available modes to export a document.

  - The **Single file** mode allows export of a document to a single file, without dividing it into pages.

  - The **Single file page-by-page** mode allows export of a document to a single file, divided into pages. In this mode, the **Page range**, **Page border color** and **Page border width** options are available.

  - The **Different files** mode allows export of a document to multiple files, one for each document page. In this mode, the **Page range**, **Page border color** and **Page border width** options are available.

- **Page range**
  Define the pages which will be included in the result. Separate page numbers with commas; set page ranges using hyphens.

- **Page border color**
  Choose the color for the page borders from the available palettes.

- **Page border width**
  Define the width of page borders.

- **Title**
  Enter the required document title.

- **Character set**
  Define the character set, which will be used in the exported document.

- Also, using the appropriate check box, you can choose whether to remove carriage returns.

See Also
HTML-Specific Export Options

RTF-Specific Export Options

When exporting a document, you can define RTF-specific export options using the following dialog.

- **Export mode**
  Choose one from the available modes to export a document.

  - The **Single file** mode allows export of a document to a single file, without dividing it into pages.

  - The **Single file page-by-page** mode allows export of a document to a single file, divided into pages. In this mode, the **Page range**, **Page border color** and **Page border width** options are available.

  - The **Different files** mode allows export of a document to multiple files, one for each document page. In this mode, the **Page range**, **Page border color** and **Page border width** options are available.

- **Page range**
  Define the pages which will be included in the result. Separate page numbers with commas, set page ranges using hyphens.

- Also, using the appropriate check box, you can choose whether the exported document should include watermarks (if they exist).

XLS-Specific Export Options

When exporting a document, you can define XLS-specific export options using the following dialog.

- **Export mode**
  Choose one of the available modes to export a document.
  - The **Single file** mode allows export of a document to a single file, without dividing it into pages.
  - The **Different files** mode allows export of a document to multiple files, one for each document page.

- **Page range**
  Define the pages which will be included in the result. Separate page numbers with commas; set page ranges using hyphens.

- **Sheet name**
  Define the sheet name.

- **Text export mode**
  Choose whether value formatting should be converted to the native XLS format string (if it is possible), or embedded into cell values as plain text.

- **Show grid lines**
  Check if it's required to show grid lines in the resulting XLS file.

- **Export hyperlinks**
  Check if it's required to export hyperlinks.

See Also
XLSX-Specific Export Options

XLSX-Specific Export Options

When exporting a document, you can define XLSX-specific export options using the following dialog.

- **Export mode**
  Choose one of the available modes to export a document.
  - The **Single file** mode allows export of a document to a single file, without dividing it into pages.
  - The **Single file page-by-page** mode allows export of a document to a single file, with each shown in a separate sheet.
  - The **Different files** mode allows export of a document to multiple files, one for each document page.

- **Page range**
  Define the pages which will be included in the result. Separate page numbers with commas; set page ranges using hyphens.

- **Sheet name**
  Define the sheet name.

- **Text export mode**
  Choose whether value formatting should be converted to the native XLSX format string (if it is possible), or embedded into cell values as plain text.

- **Show grid lines**
  Check if it's required to show grid lines in the resulting XLSX file.

- **Export hyperlinks**
  Check if it's required to export hyperlinks.

See Also
XLS-Specific Export Options

CSV-Specific Export Options

When exporting a document, you can define CSV-specific exporting options using the following dialog.
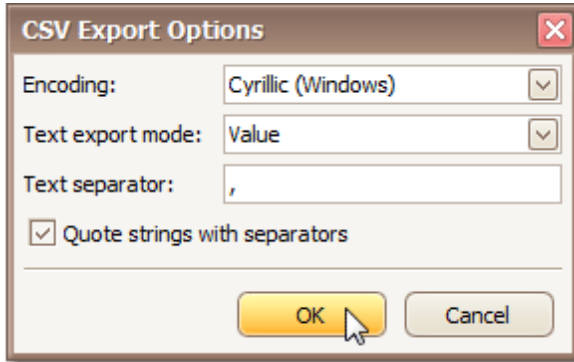
- **Encoding**
  Define the encoding used in the exported document.

- **Text export mode**
  Choose whether to use the formatting of the data fields in the bound dataset for the cells in the exported document. Note that if this property is set to Text, all data fields are exported to the CSV file as strings, with the corresponding formatting embedded into those strings.

- **Text separator**
  Define a text separator (comma by default).

- You can also specify whether to quote strings with separators.

TXT-Specific Export Options

When [exporting a document](#), you can define TXT-specific exporting options using the following dialog.
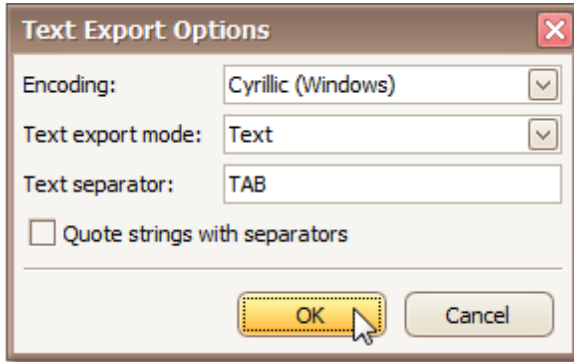
- **Encoding**
  Define the encoding used in the exported document.

- **Text export mode**
  Choose whether to use the formatting of the data fields in the bound dataset for the cells in the exported document. Note that if this property is set to Text, all data fields are exported to the Text file as strings, with the corresponding formatting embedded into those strings.

- **Text separator**
  Define a text separator (TAB by default).

- You can also specify whether to quote strings with separators.

Image-Specific Export Options

When <u>exporting a document</u>, you can define image-specific exporting options using the following dialog.

Image Export Options

Image format:	PNG
Resolution (dpi):	96
Export mode:	Single file
Page range:	1,3-5,7
Page border color:	Black
Page border width:	1

OK   Cancel
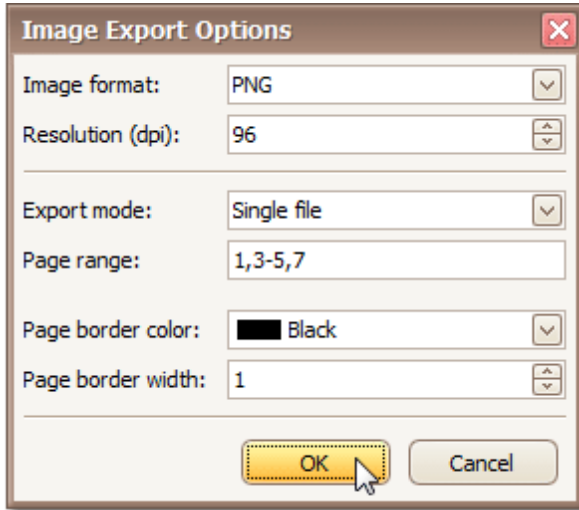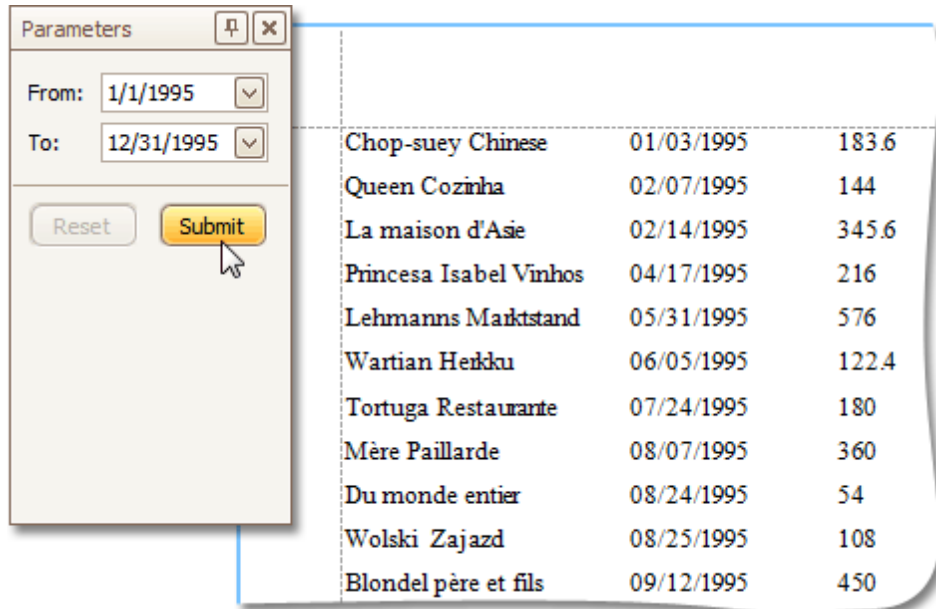
- **Image format**
Choose one from the available image formats to export a document: BMP, EMF, WMF, GIF, JPEG, PNG or TIFF.
- **Resolution (dpi)**
Define the required image resolution.
- **Export mode**
Choose one from the available modes to export a document.
  - The **Single file** mode allows export of a document to a single file, without dividing the output into pages.
  - The **Single file page-by-page** mode allows export of a document to a single file, divided into pages. In this mode, the **Page range**, **Page border color** and **Page border width** options are available.
  - The **Different files** mode allows export of a document to multiple files, one for each document page. In this mode, the **Page range**, **Page border color** and **Page border width** options are available.
- **Page range**
Defines the pages which will be included in the result. Separate page numbers with commas; set page ranges using hyphens.
- **Page border color**
Specifies page border color.
- **Page border width**
Sets page border width.

Passing Parameters

Some documents or reports allow you to control data display, and what data is to be displayed by specifying parameter values.

To show the Parameters window, click the **Parameters** [?] button on the main toolbar. A window allowing you to change parameter values will be invoked.

Enter the required values and click **Submit**. To reset settings, click **Reset**.

Chop-suey Chinese	01/03/1995	183.6
Queen Cozinha	02/07/1995	144
La maison d'Asie	02/14/1995	345.6
Princesa Isabel Vinhos	04/17/1995	216
Lehmanns Marktstand	05/31/1995	576
Wartian Herkku	06/05/1995	122.4
Tortuga Restaurante	07/24/1995	180
Mère Paillarde	08/07/1995	360
Du monde entier	08/24/1995	54
Wolski Zajazd	08/25/1995	108
Blondel père et fils	09/12/1995	450

Parameters

From: 1/1/1995
To: 12/31/1995

Reset   Submit

Miscellaneous

Customize Printing Settings of Charts

If allowed by your application vendor, you can customize additional print settings of a document. For example, if you are about to print out a chart, you may be able to customize the chart's printing options.

To do this, click the **Customize** 🖳 button on the toolbar. The **Print Options** dialog will be invoked.
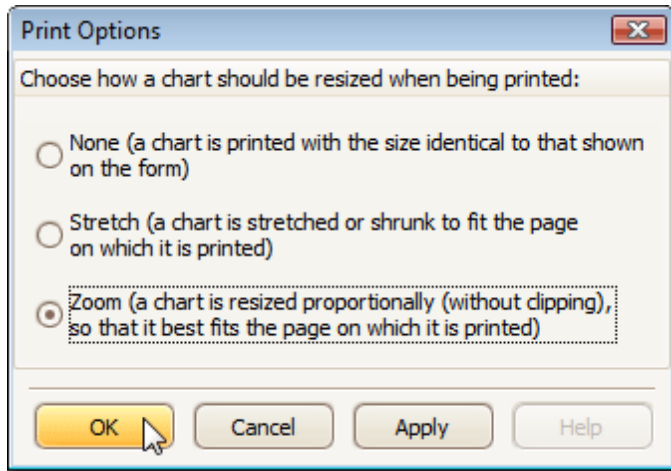
- **None**
  A chart is printed in the identical size shown on the form.
- **Stretch**
  A chart is stretched or shrunk to fit the page on which it is printed.
- **Zoom**
  A chart is resized proportionally (without clipping), so that it best fits the page on which it is printed.

Customize Printing Settings of Grids

If allowed by your application vendor, you can customize additional print settings of a document. For example, if you are about to print out a grid, you may be able to customize grid printing options.

To do this, click the **Customize** button on the toolbar. The **Print Options** dialog will be invoked.
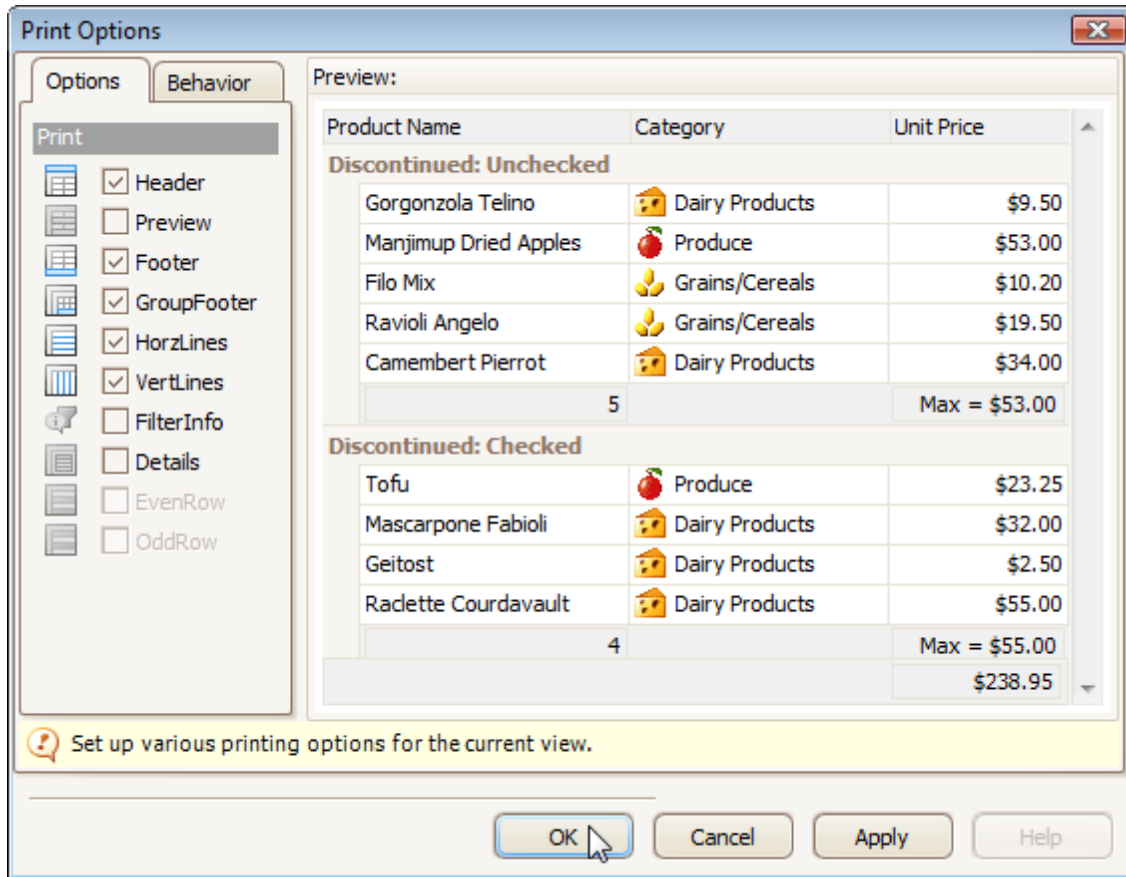
- **Options tab**
  Allows you to uncheck elements that you don't want to print.
- **Behavior tab**
  Allows you to pre-process a grid before printing it. For instance, you can enable automatic column width calculation, or automatic group row expansion.

Customize Printing Settings of Pivot Tables

If allowed by your application vendor, you can customize additional print settings of a document. For example, if you are about to print out a Pivot Table, you may be able to customize its printing options.

To do this, click the **Customize** 🖰 button on the toolbar. The **Print Options** dialog will be invoked.

Print Options						✕

Options | **Behavior**

Lines
- Horizontal Lines — Default
- Vertical Lines — Default

Headers
- Filter Headers — Default
- Data Headers — Default
- Column — Default
- Row Headers — Default
- ☐ Headers On Every Page
- ☑ Unused Filter Fields

Preview:

Employee Name

Sale		Year		
Category Name	Product Name	1995	1996	Grand Total
Beverages	Chai	$5,070.60	$6,295.50	$11,366.10
	Ipoh Coffee	$10,034.90	$8,560.60	$18,595.50
Beverages Total		$15,105.50	$14,856.10	$29,961.60
Confections	Chocolade	$1,282.01	$86.70	$1,368.71
	Scottish Longbreads	$3,909.00	$4,175.00	$8,084.00
Confections Total		$5,191.01	$4,261.70	$9,452.71
Grand Total		$20,296.51	$19,117.80	$39,414.31

OK   Cancel   Apply   Help

- **Options tab**
  Allows you to specify which elements are to be printed.
- **Behavior tab**
  Allows you to pre-process a Pivot Table before printing it. For instance, you can enable field value merging.

Customize Printing Settings of Tree Views

If allowed by your application vendor, you can customize additional print settings of a document. For example, if you are about to print out a tree view, you may be able to customize its printing options.

To do this, click the **Customize** 🖉 button on the toolbar. The **Print Options** dialog will be invoked.
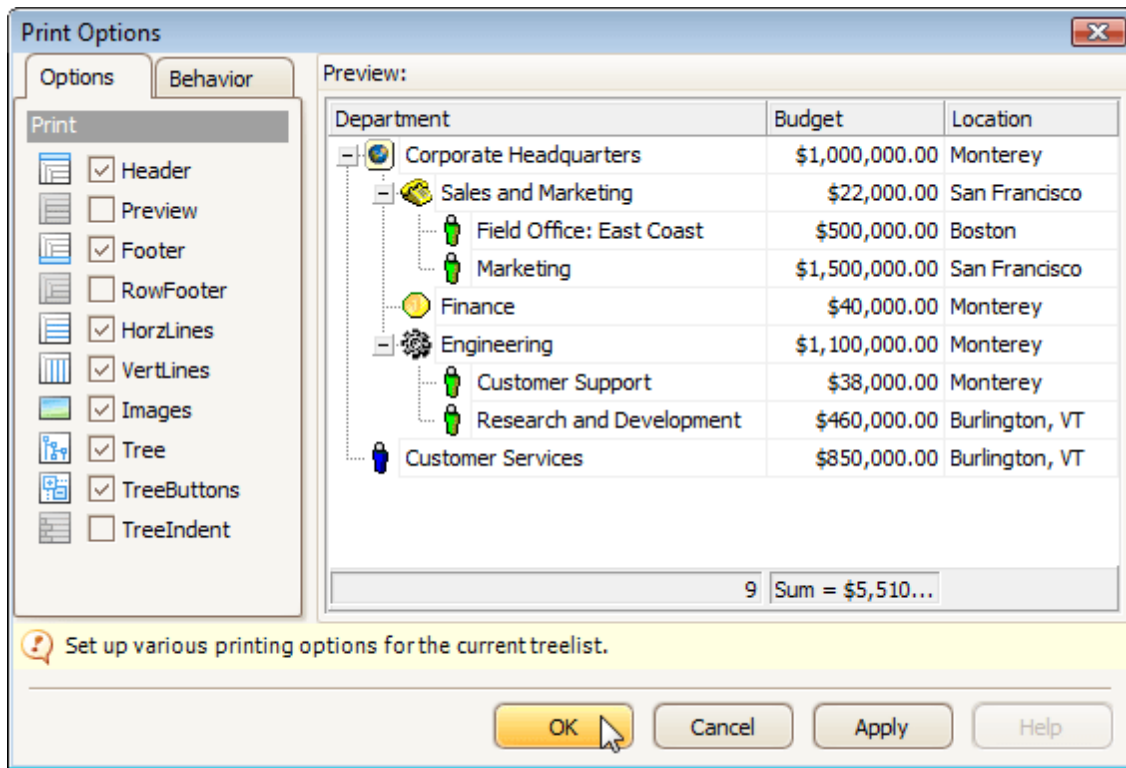
- **Options tab**
  Allows you to specify which elements are to be printed.

- **Behavior tab**
  Allows you to pre-process a tree view before printing it. For instance, you can enable automatic column width or row height calculation.

Warnings and Error Messages

Warnings

Warning Text	Description
The specified file doesn't have a PRNX extension.	This message is invoked if you try to open a file with an extension different from PRNX. Click **Yes** if you are sure that the file contains the compatible markup. Otherwise, click **No**.
One or more margins are set outside the printable area of the page.	This message is invoked when you try to print a document, whose margins are outside of the printable area of the page. Click **Yes** if you are sure that your printer supports the specified page margins. Otherwise, click **No**.

Errors

Error Text	Description
The specified file doesn't contain valid XML data in the PRNX format. Loading is stopped.	This message is invoked if you try to open a file with an incompatible markup. This file cannot be loaded in the Print Preview. Try to open a file with a compatible markup.

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.
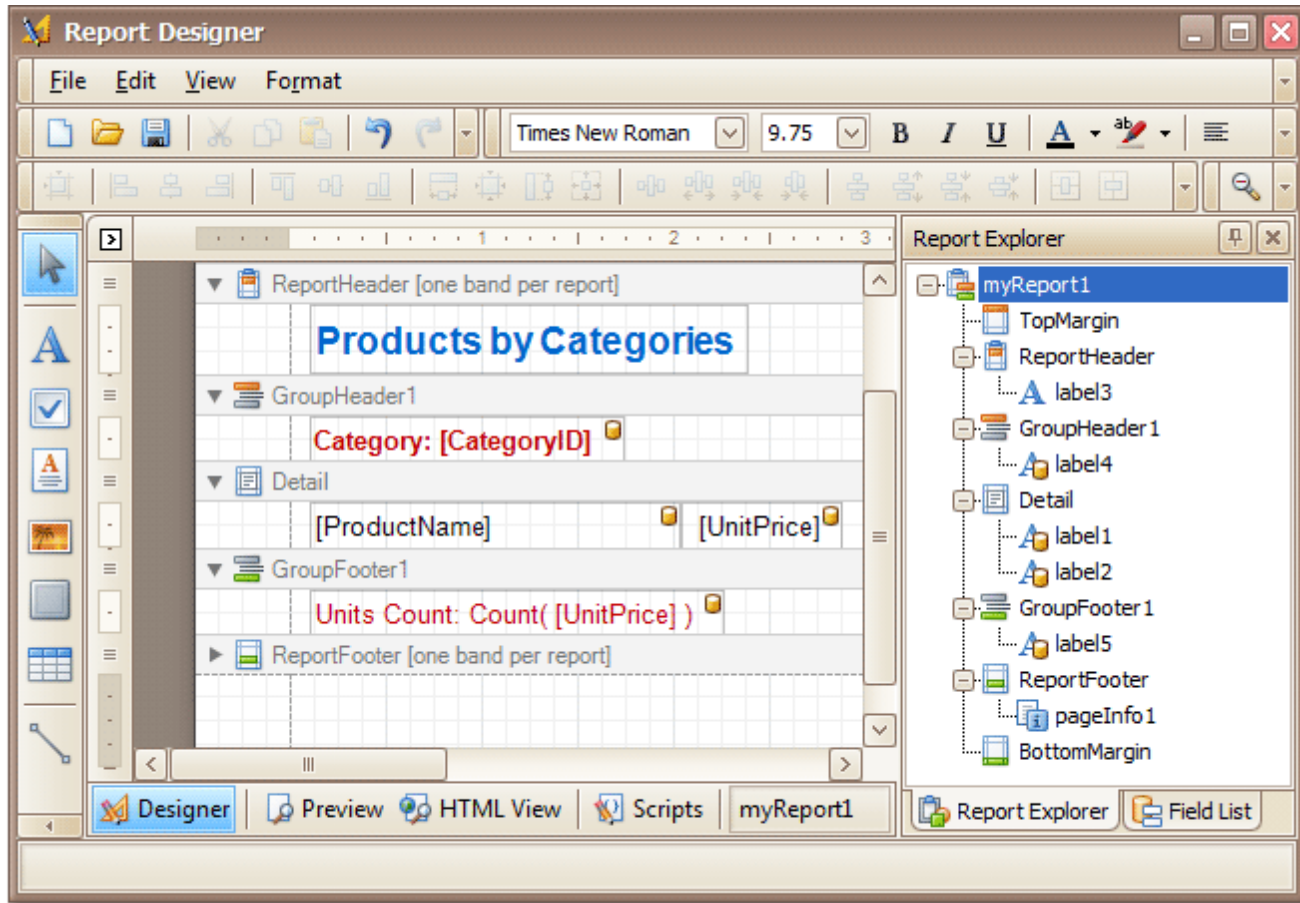
The following sections are available in this guide.

- 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

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 Element Layout in Your Report
- Change Fonts and Colors of Report Elements
- Delete Report Elements

Providing Data

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

Data Representation

- 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

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

- To save a copy of your report, in the <u>Main Menu</u>, select **File** | **Save As**.
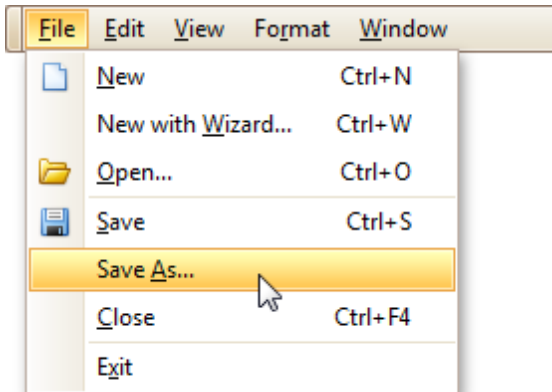
  Then, in the invoked standard **Save File** dialog, specify the folder and file name.

- 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.
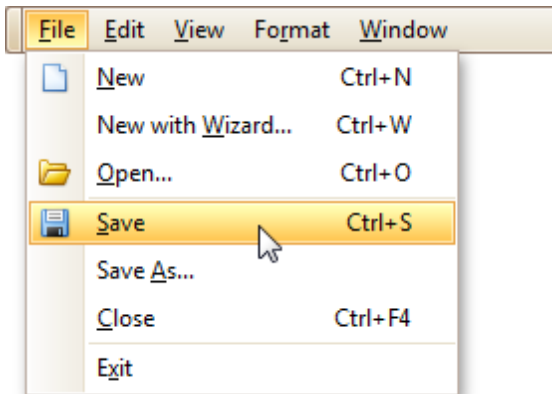
After your report is saved, its path is displayed in the Report Designer's title bar.
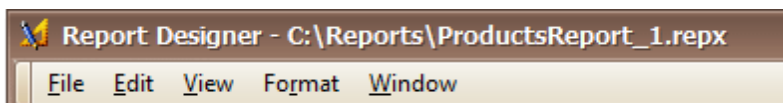
- To load a previously saved report, in the Main Menu, click **File** | **Open**, or press CTRL+O. The standard **Open File** dialog will allow you to locate and open report files.

See Also
<u>Change Element Layout in Your Report</u>
<u>Delete Report Elements</u>

Manually Update Report Output

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

To export a report, switch to the Preview Tab and click the arrow near the **Export Document...** button .
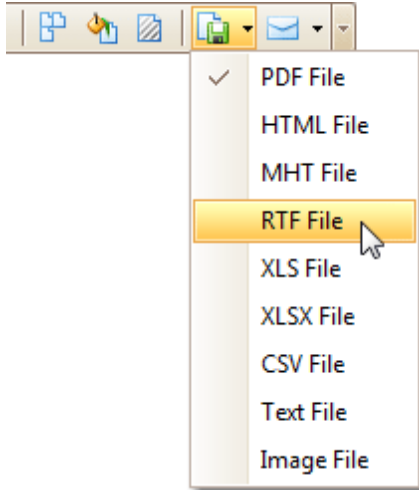
To learn more about report exporting, see Exporting from Print Preview.

Change Element Layout in Your Report

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

Individual controls can be moved, using either mouse or keyboard.
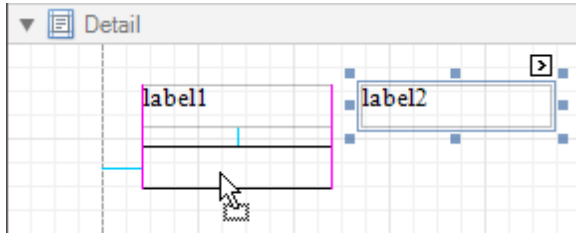
They can be precisely aligned to each other using either *Snap Gird* or *Snap Lines*. For details on this, refer to Controls Positioning.

To resize a control using the mouse, select it, and then drag a rectangle drawn on its edge or corner.
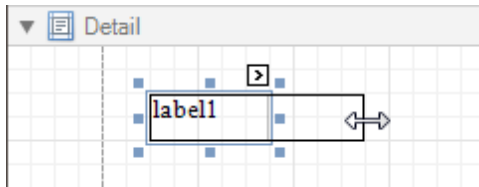
To resize a band, drag its header strip.
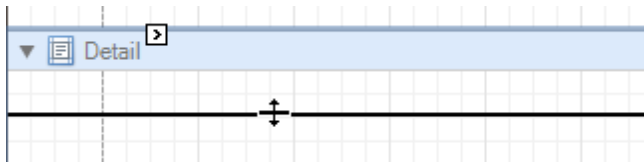
To resize an element using the keyboard, press SHIFT+ARROW or CTRL+SHIFT+ARROW.

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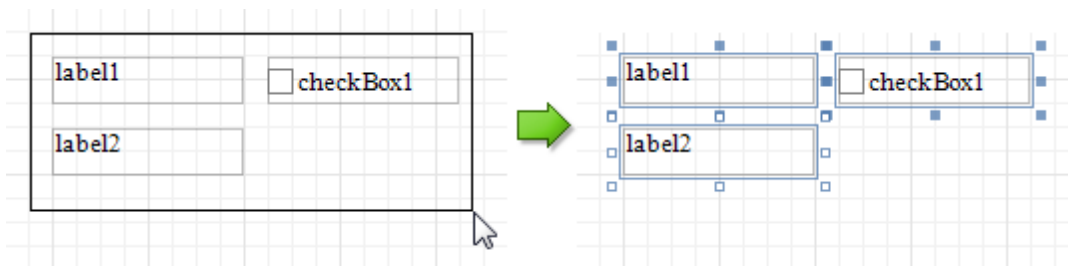
You can also easily align multiple controls or make them the same size, by utilizing the Layout Toolbar.

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

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.
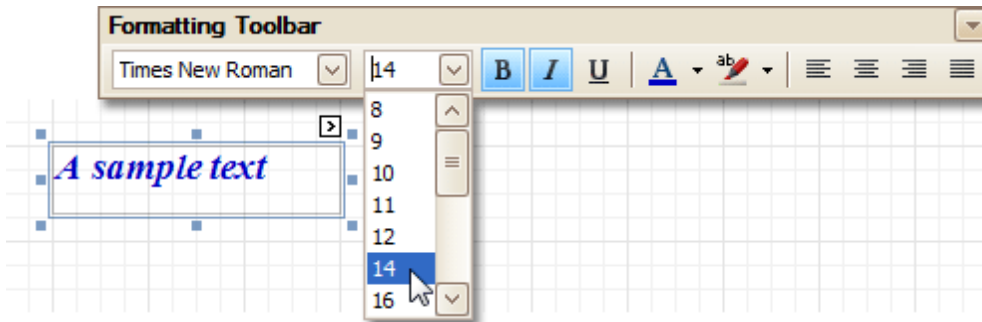
- Use the Property Grid, where all appearance-related properties are located under the **Appearance** category.
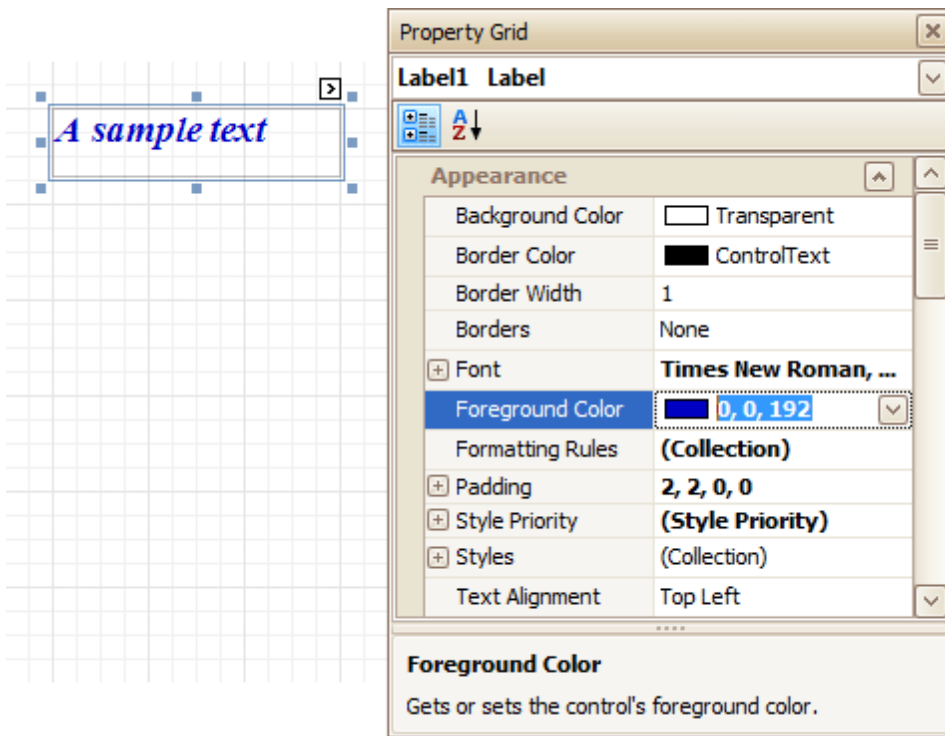
Note that the appearance settings of a band are applied to all controls contained within it.

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

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**.
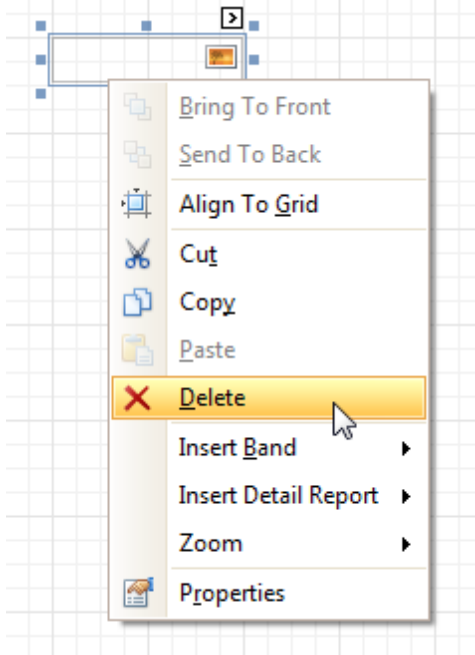
- In the [Main Menu](#), select **Edit | Delete**.
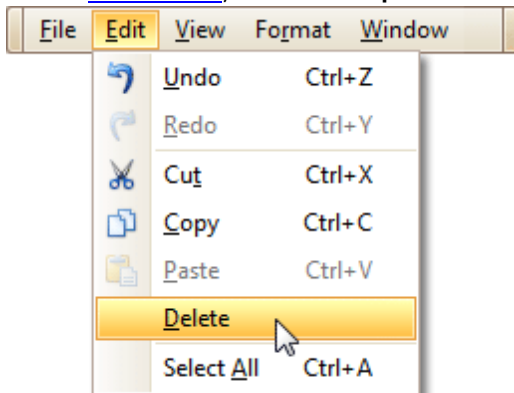
You can cancel the operation by pressing CTRL+Z.

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

See Also
[Change Element Layout in Your Report](#)

Add or Modify Static Information in Your Report

In a report, *static* and *dynamic* information is displayed using appropriate [controls](#).

Dynamic information changes through a report, such as [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: [Display Values from a Database (Bind 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](#)).
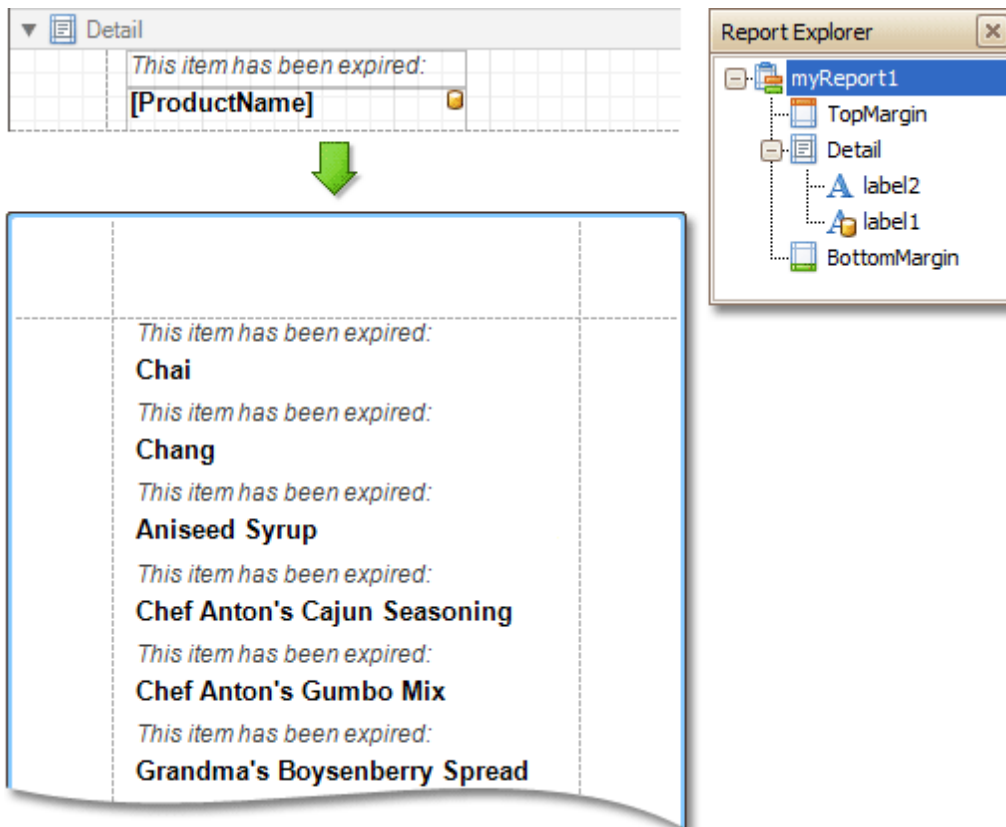
Static information can be either [edited in-place](#), or [loaded from an external file](#).

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.
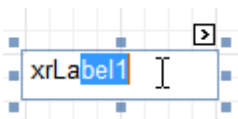
Note

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.
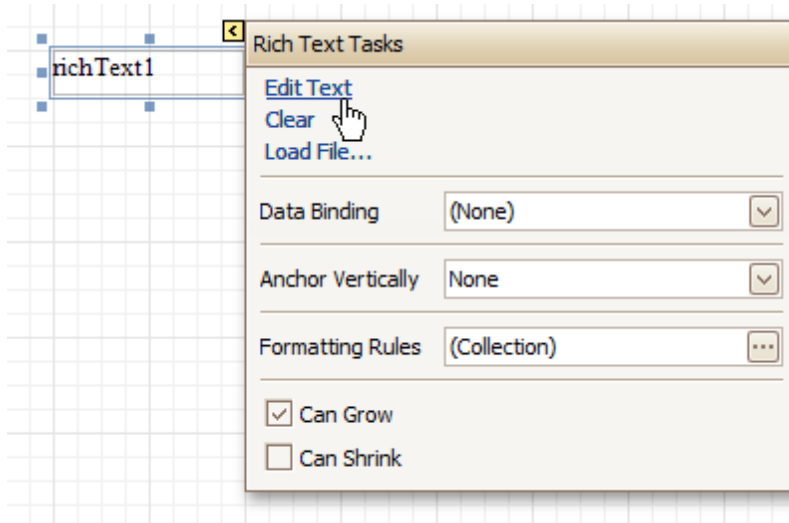
Load Static Information to Your Report

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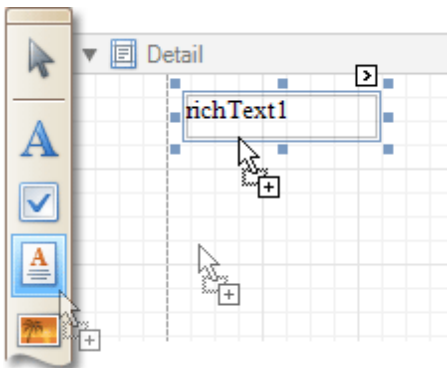
2. To load content from an external RTF or TXT file, select the created control and click its Smart Tag. In the invoked actions list, click the **Load File...** link.
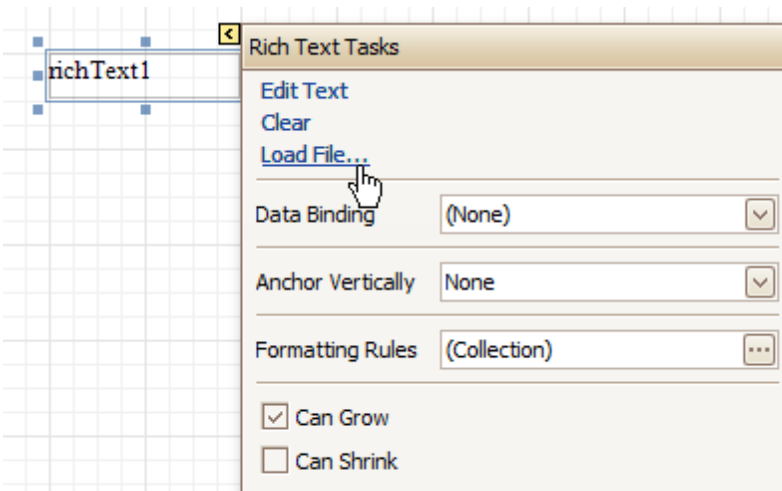
Then, in the invoked dialog, locate the required file, and click **Open**.

See Also

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

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

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

Data-bound controls are indicated by a yellow database icon in their top-right corner, both in the Design Panel and Report Explorer.
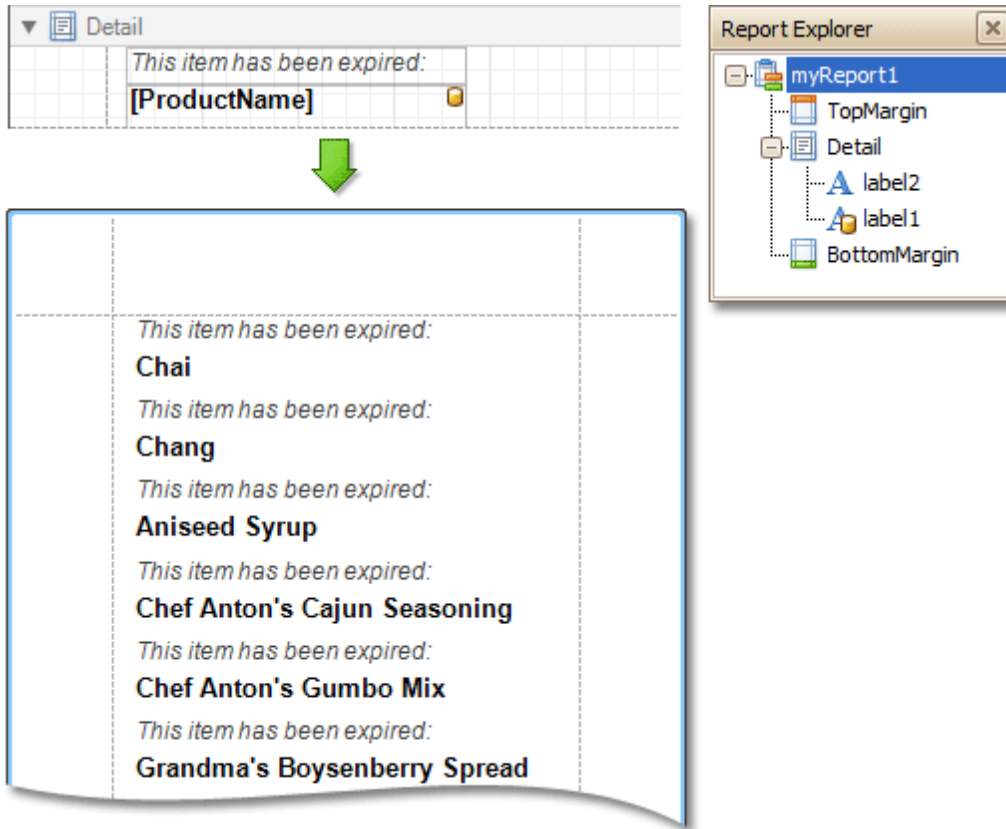
To embed dynamic information to a report, if this information is contained in the report's data source, this can easily be done using one of the following approaches.

- 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.
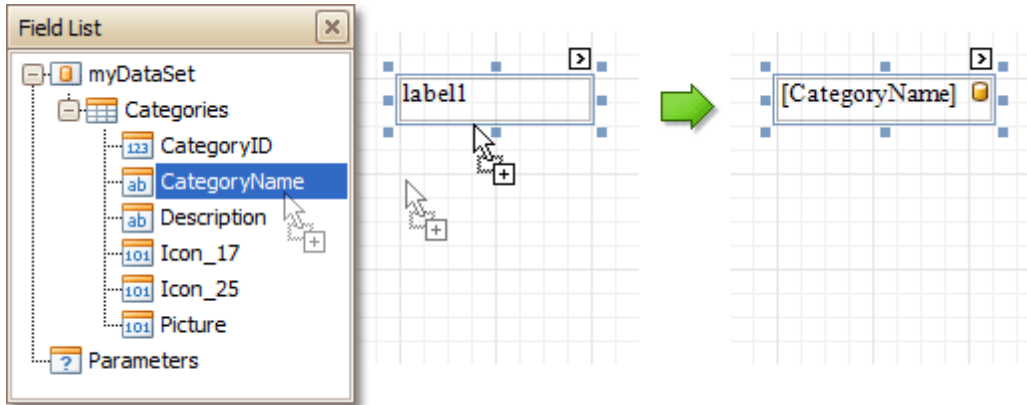
- To add a new data-bound control, simply drag the required data field from the Field List onto a report band. This will create a Label bound to this data field.
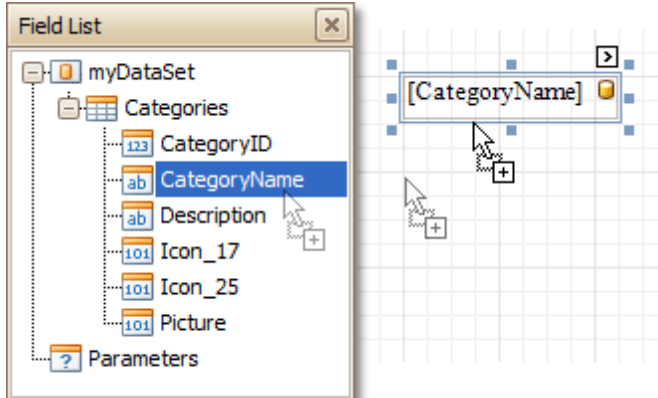
- A more flexible way to create data-bound elements is to right-click a Field List item, and then drag and drop it onto a report. This will invoke the Context Menu, where you can choose which control should represent your data, and it will be automatically created and bound to the selected data field.
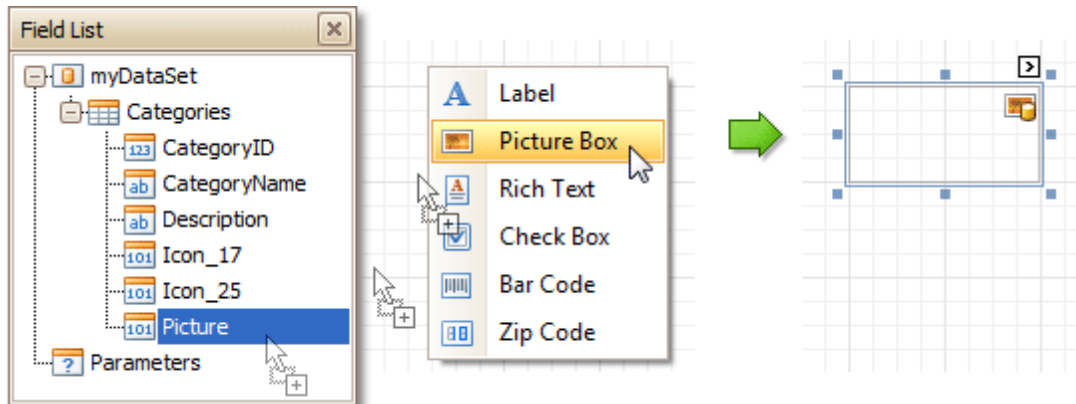
Using the Smart Tag

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.
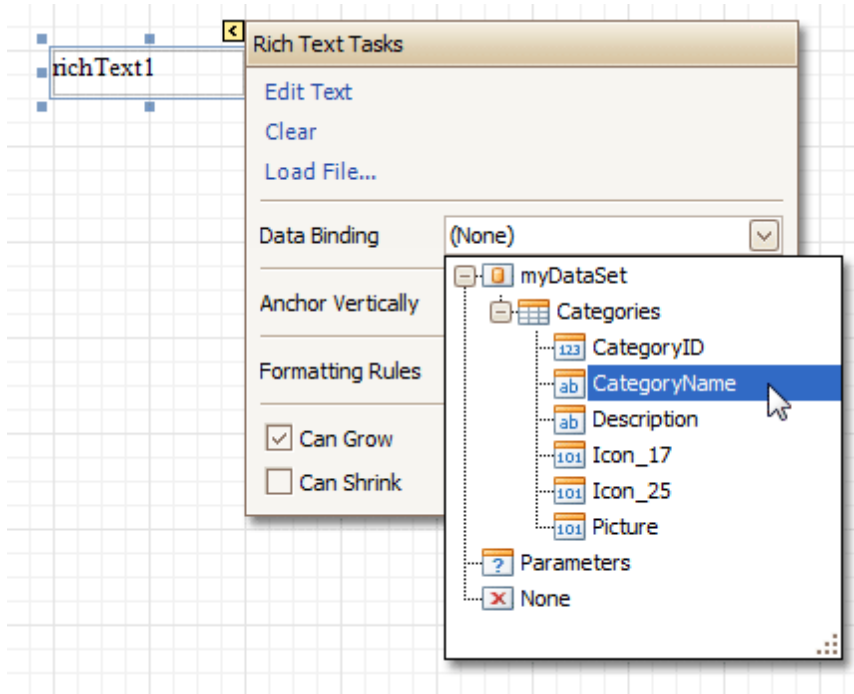
Using the Property Grid

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**).
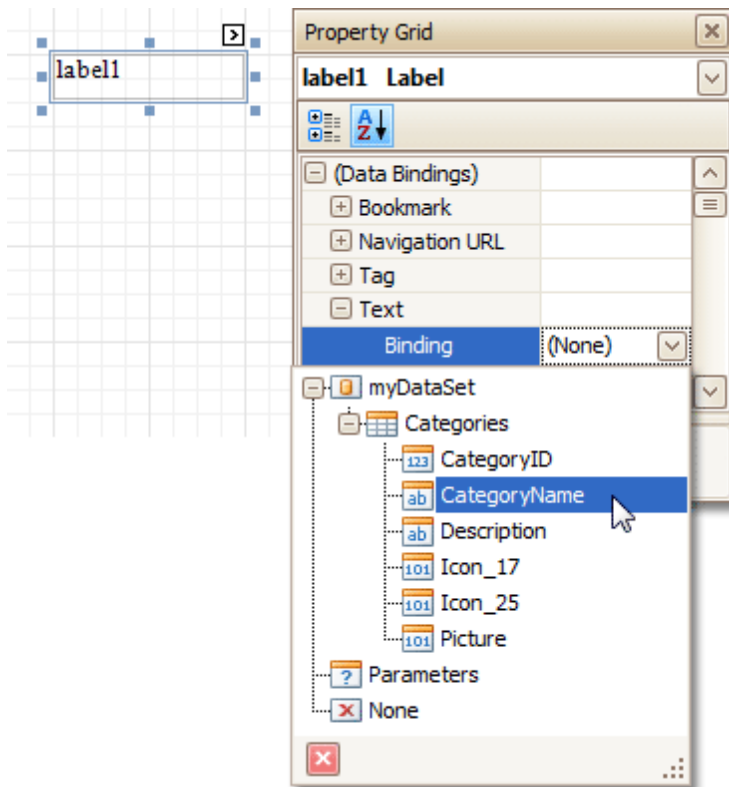
Special Capabilities

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

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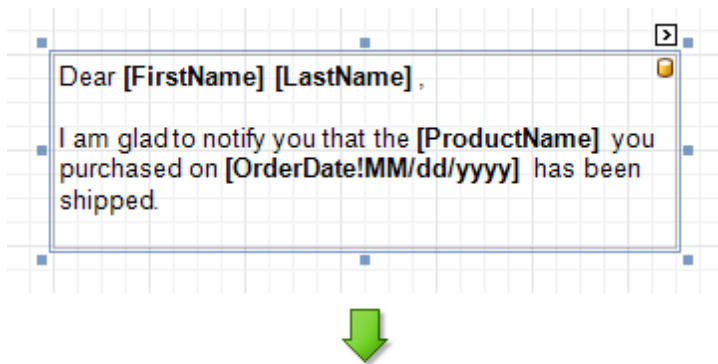
To learn how *values formatting* can be applied to the embedded data fields (e.g. for them to be treated as *currency*, or *date-time* content), refer to Change Value Formatting of Report Elements.

Add Calculated Fields to a Report

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**.
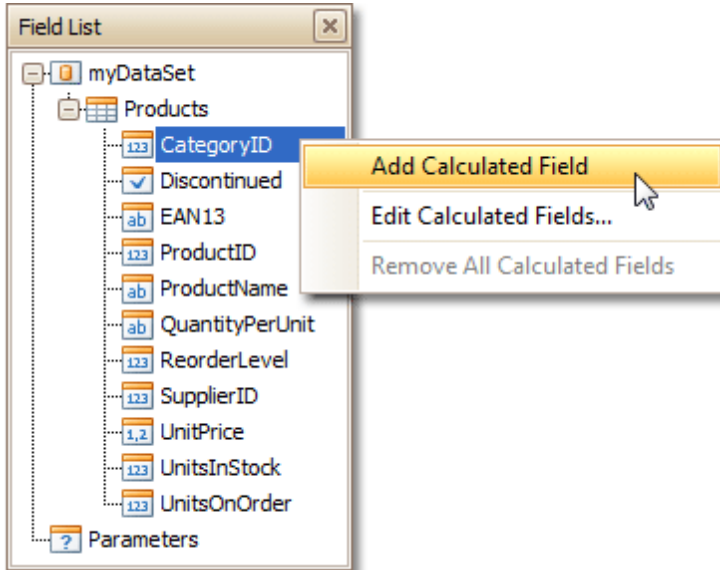
2. In the Field List, select the created field to show its properties in the Property Grid. Among these options, make sure to change the **Field Type** property to an appropriate value.
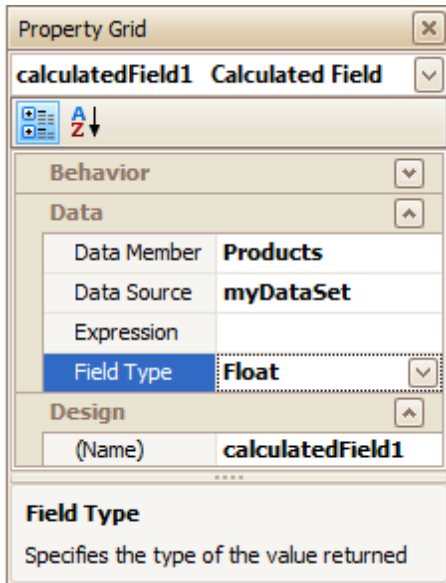
3. Now, let's create an expression for the calculated field.

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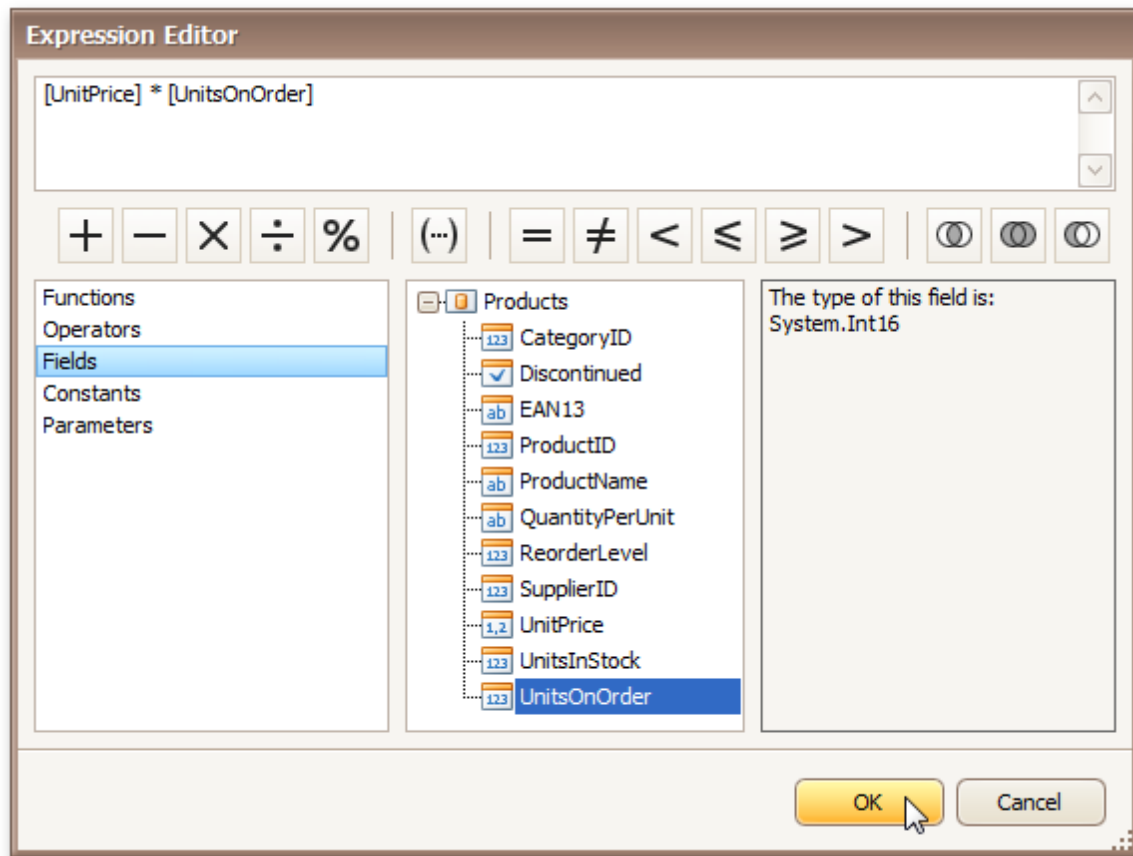
Click **Fields** to see the field list. Double-click field names to add them to the expression string. Use the toolbar to add operators between field names.

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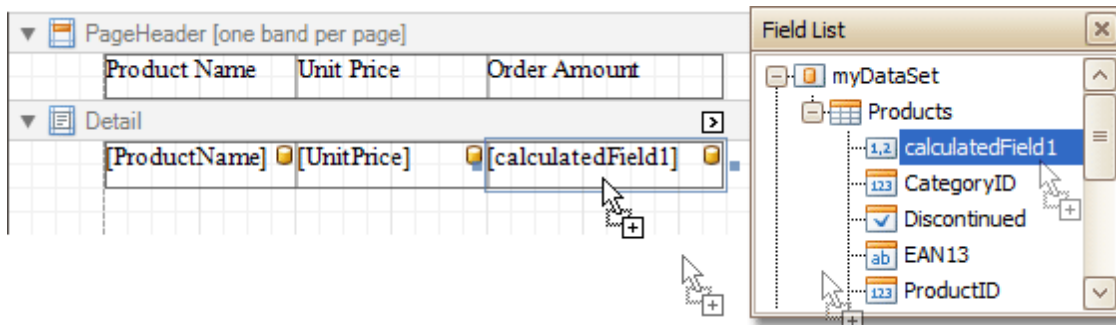
The report with a calculated field is now ready. Switch to the Preview Tab, and view the result.

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

For your report, you can employ *parameters*, which can be requested each time the report is being previewed. And, based on specified values, the report will then being filtered. It's 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**.

Repeat this action to create the second parameter.

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

Then, repeat this step for the second parameter.

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

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

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

3. Click your report's 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**.

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

Change Value Formatting of Report Elements

To apply value formatting for a 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.
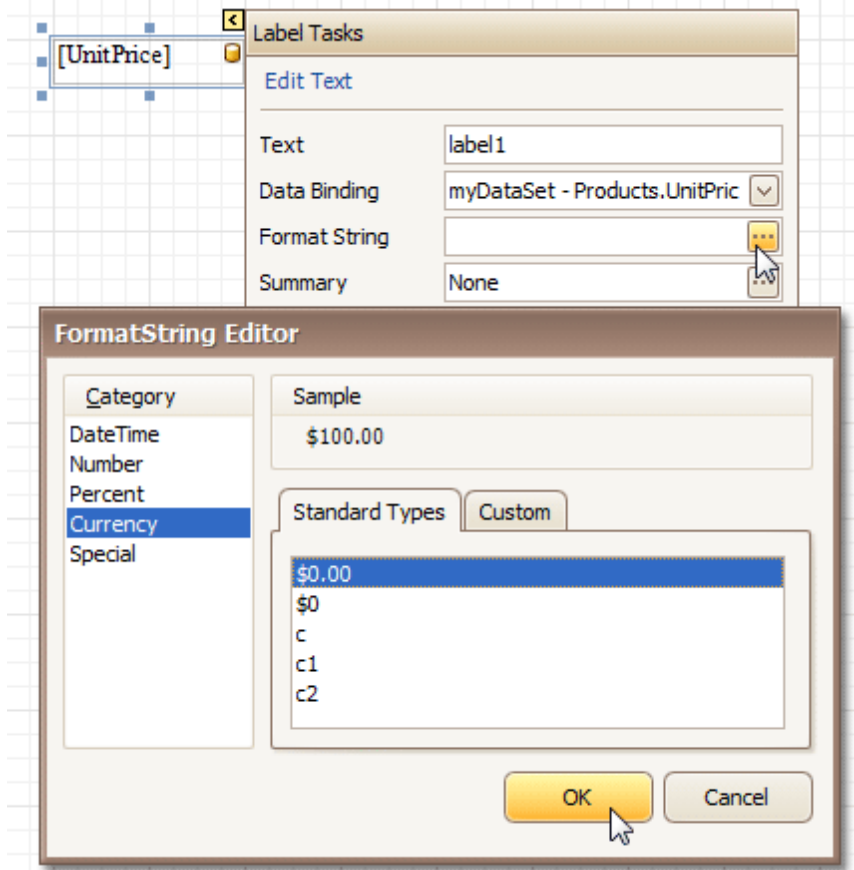
To quit the dialog and apply the changes, click **OK**.

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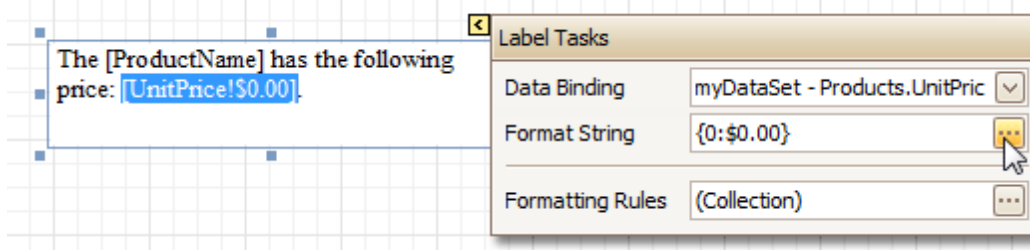
Note that when a *summary function* is being applied to a control's dynamic content, value formatting is applied separately, via the **Summary Editor**, as described at Add Totals to a Report.

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

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.
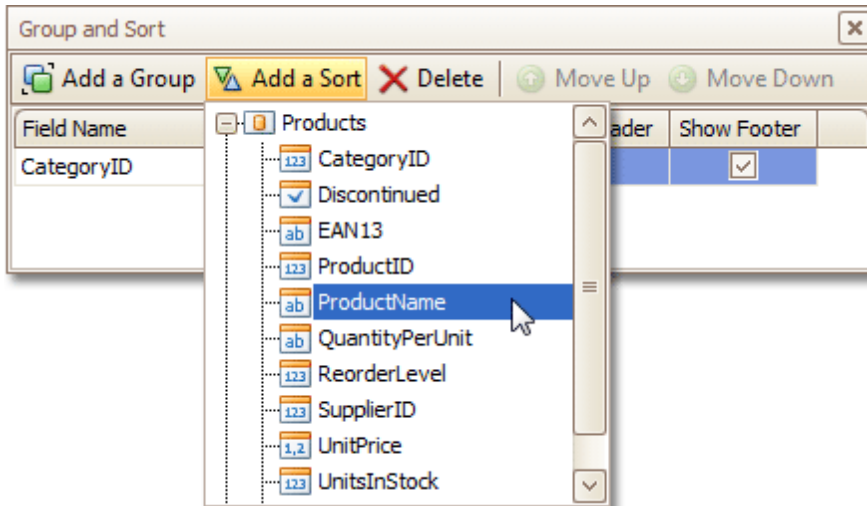
   Note that sorting across calculated fields is supported, as well.

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 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.
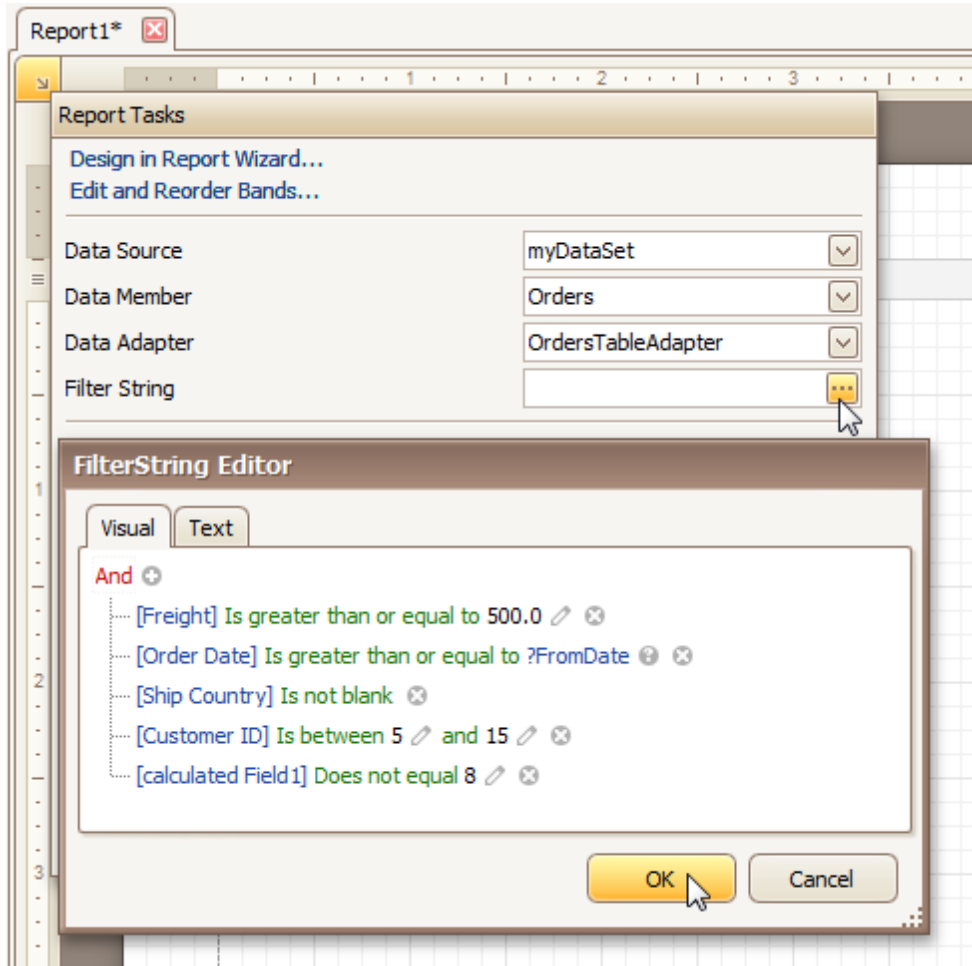
In the **Filter String Editor**, you can either use the **Visual** expression builder, or specify the expression in **Text**.
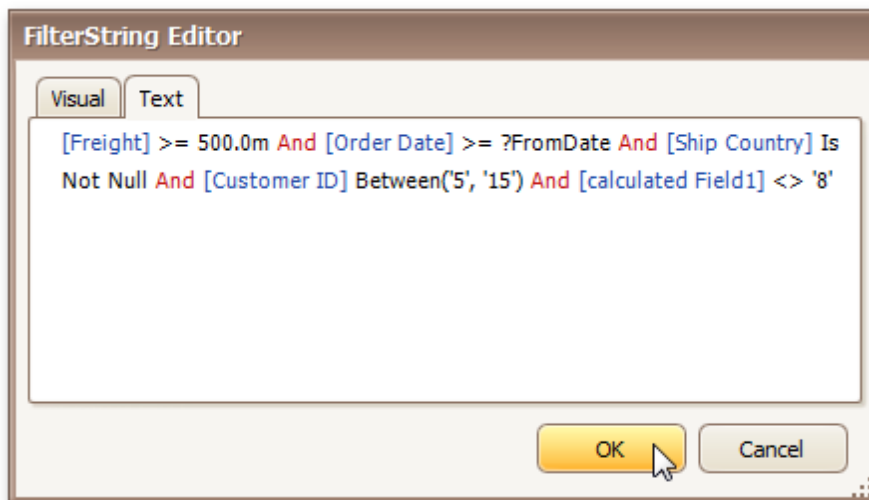
Note that it is possible to embed parameters into the expression, and also request them each time a report is

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

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.
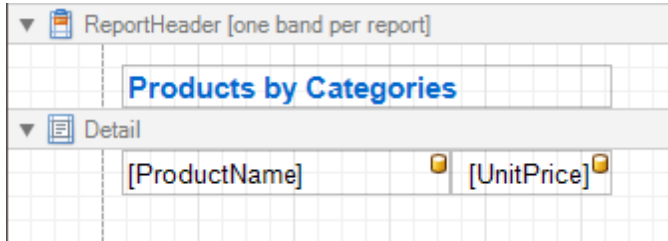
2. Now, switch to the Group and Sort Panel, and click **Add a Group**. In the invoked list, choose a data member across which the report is to be grouped. Note that grouping across calculated fields is supported, as well.
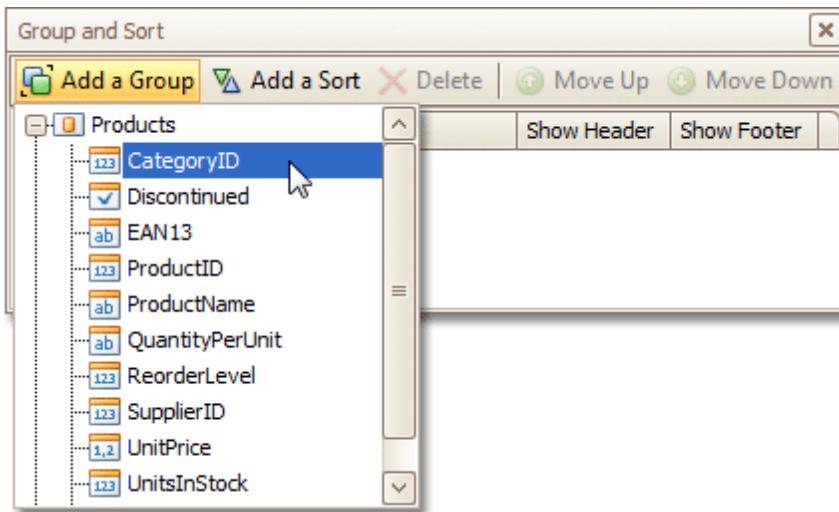
   If multiple groups are created, you can specify the priority for each group, by selecting it in the Group and Sort Panel, and using the **Move Up** and **Move Down** buttons.

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.
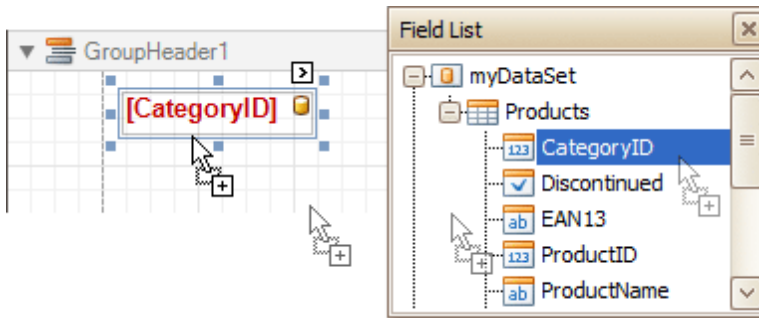
   If required, you also can apply mail merge to this label.

4. In addition, you can enable the corresponding Group Footer band, by checking the **Show Footer** option in the Group and Sort Panel.
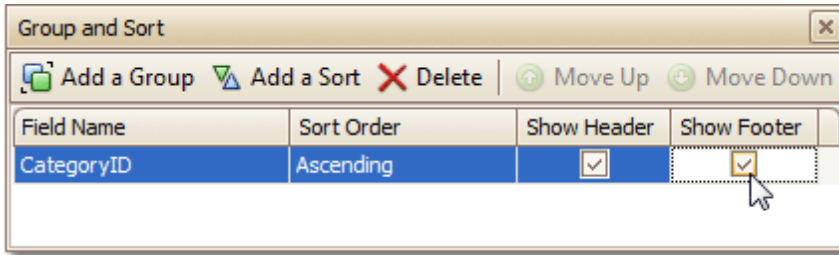
To manage the sorting order of the group's items (ascending or descending), use the **Sort Order** drop-down list.

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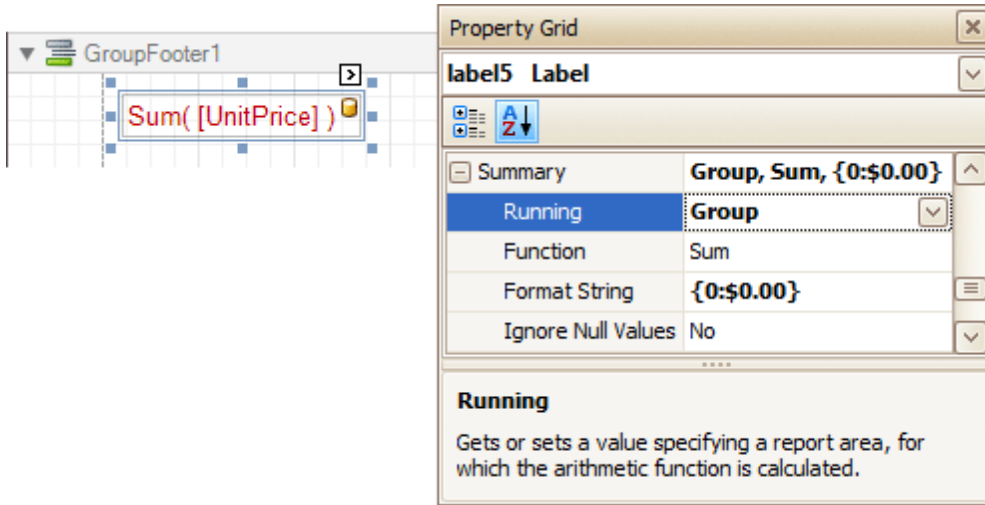
Note also that *value formatting* is applied to a summary independently of the general formatting, and has a greater priority.

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

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**.
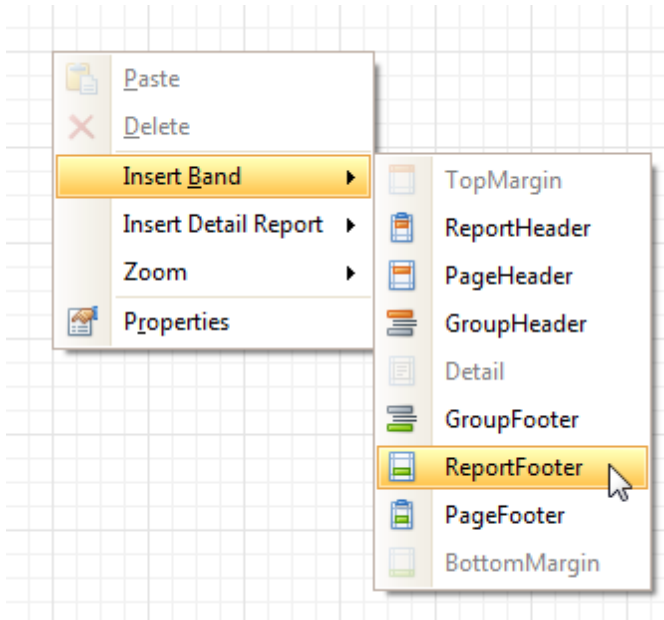
2. Click the field for which a summary will be calculated, to select it. Then, hold down CTRL and drag the field onto the Report Footer area, to create an exact copy of the [Label](#) that will display the summary.
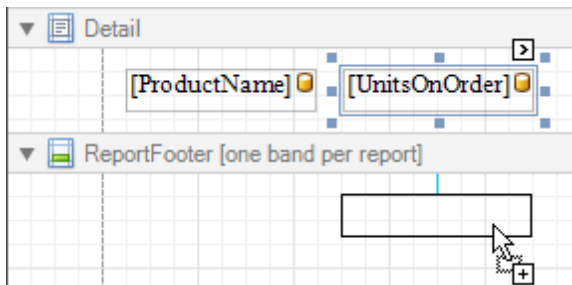
🗏Note
You can also create a new label for your total by simply dragging it from the [Control Toolbox](#).

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.
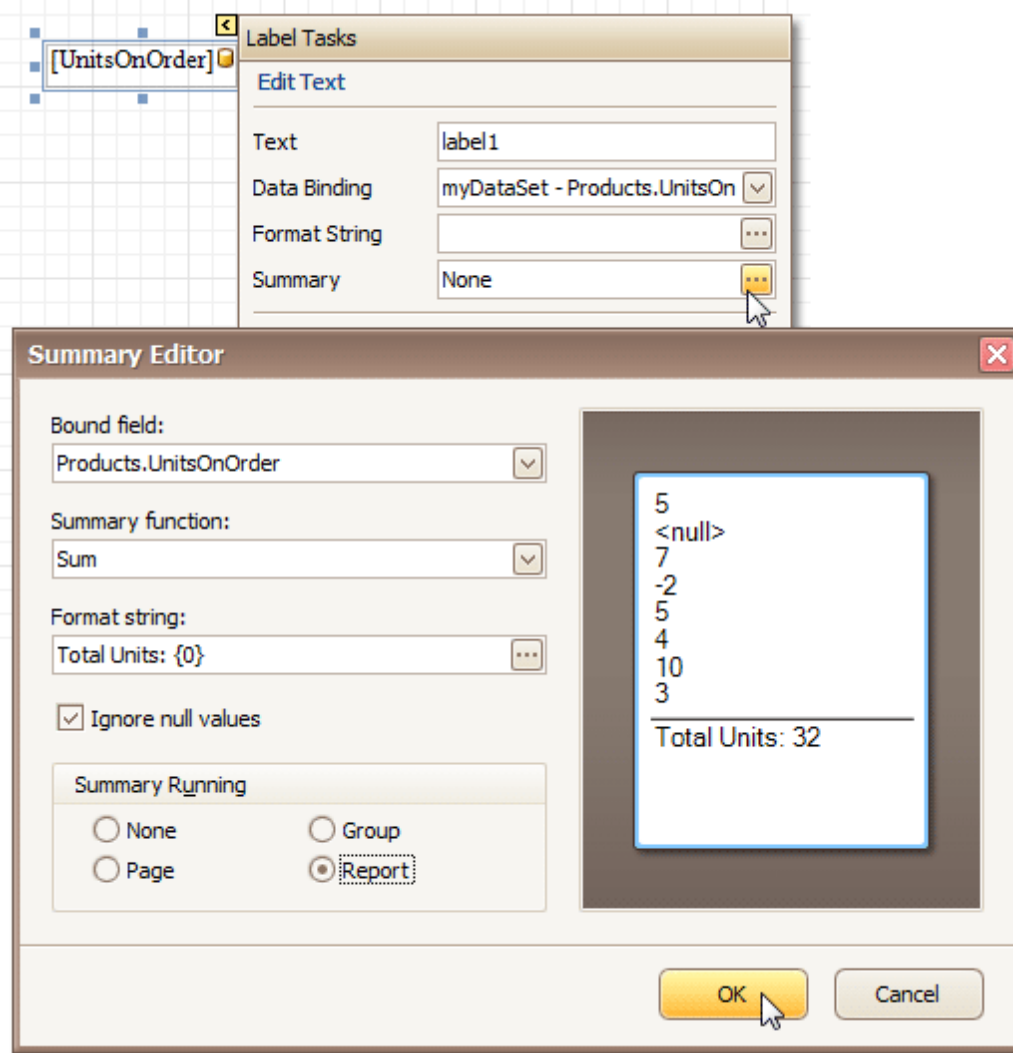
Note

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

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

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.
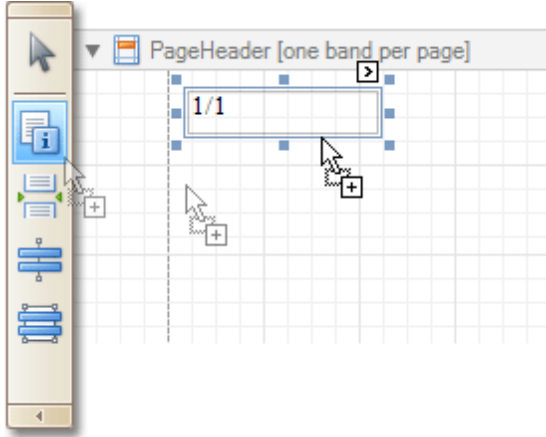
Then, follow the instructions below for your specific task.

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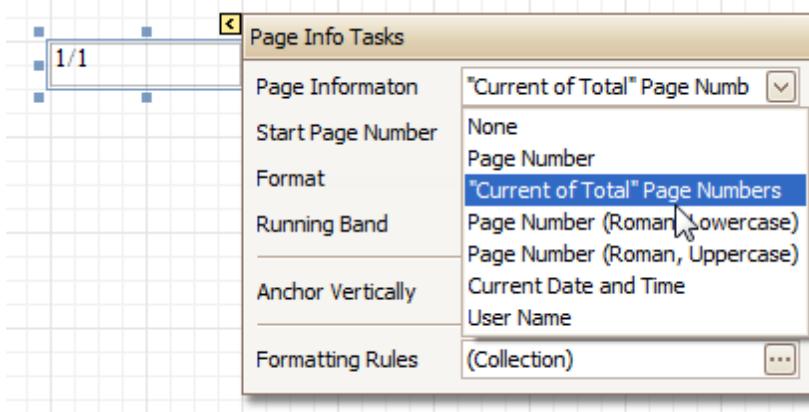
   Select whether to display only the page number (Latin or Roman - uppercase or lowercase), or the current page number with total pages.

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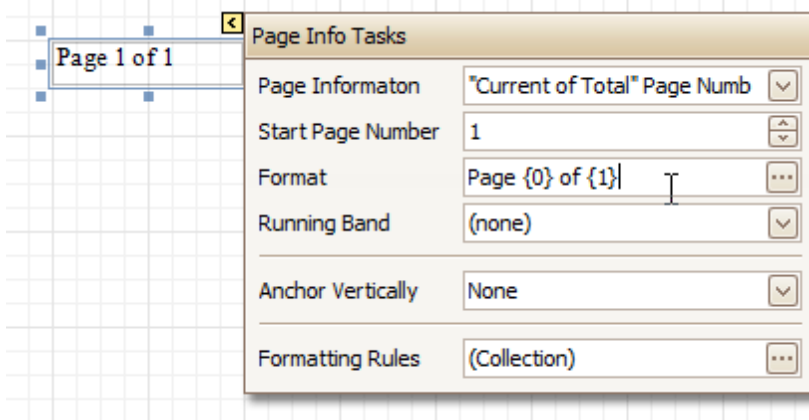
3. Using the control's actions list, you also can specify the *starting page number*, and the *running band* (e.g. this option is available when there are groups in a report, and it's required to apply independent page numbering for them). For details on this, refer to Add Page Numbers for Groups.

The result is shown below.

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**.
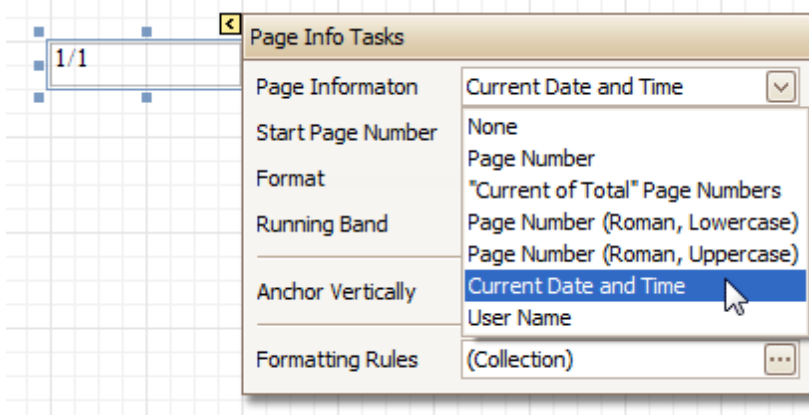
2. To format the control's text, via its Smart Tag, invoked its actions list, and specify the required format. You can either type it in the **Format** field, or, click its ellipsis button and use the **Format String Editor**.
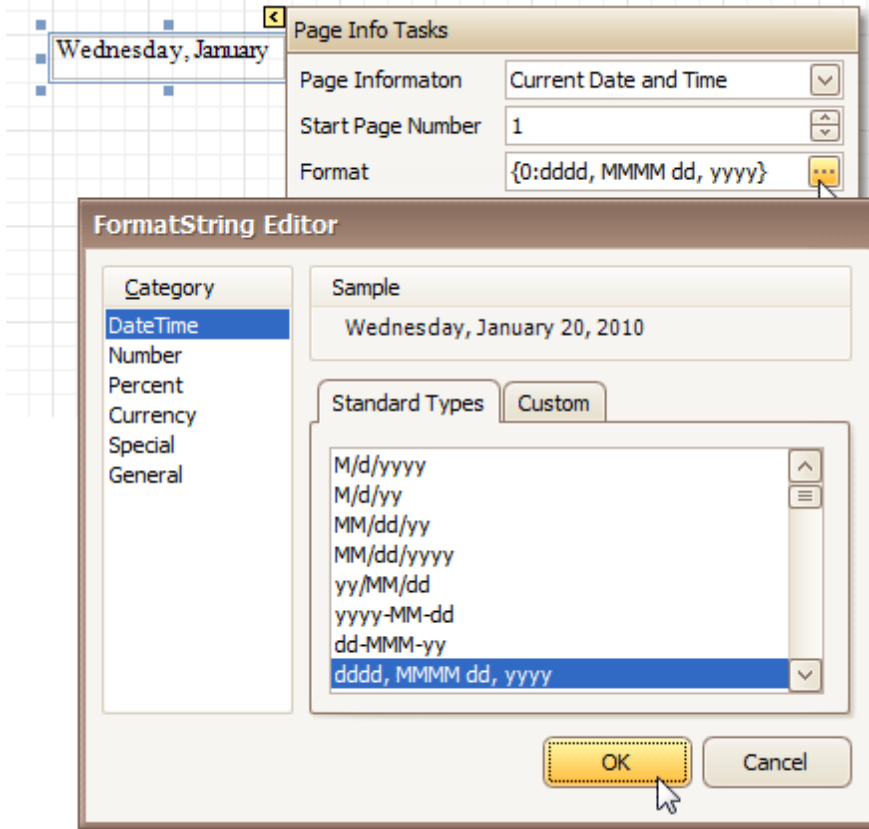
The result is shown below.
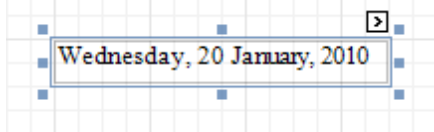
Add the User Name

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 **User Name**.
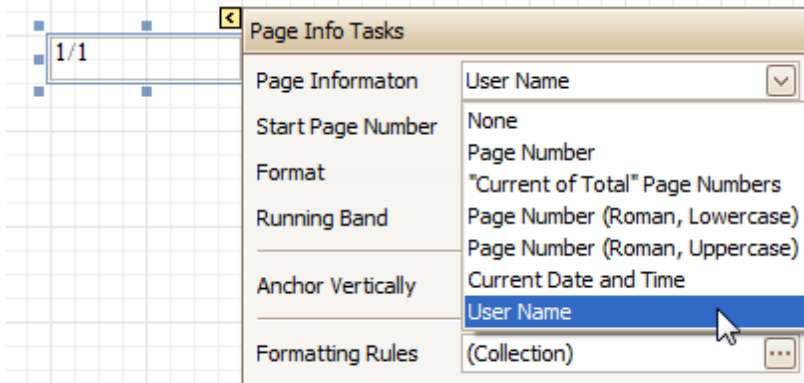
2. To format the control's text, via its Smart Tag, invoke its actions list, and specify the required format (e. g. **Current User: {0}**).
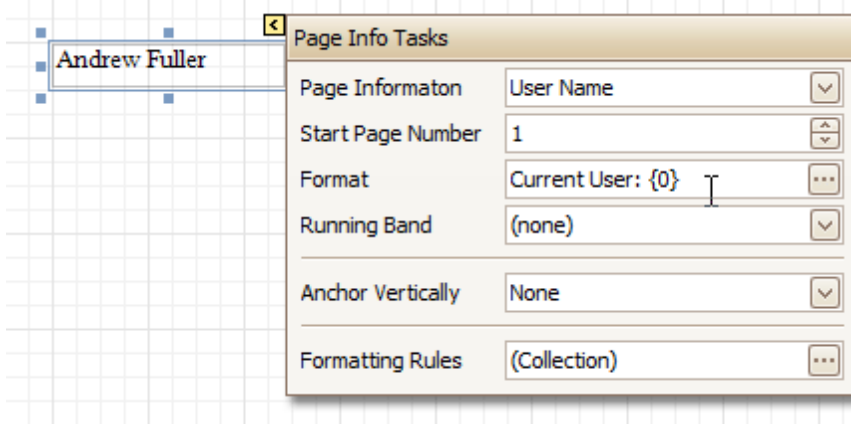
The result is shown below.
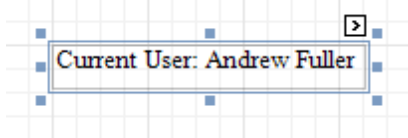
See Also
Create or Modify Watermarks of a Report
Add Page Numbers for Groups

Create or Modify Watermarks of a Report

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

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

   1.Click the report's <u>Smart Tag</u>, and in its actions list, click the ellipsis button for the **Watermark** entry.
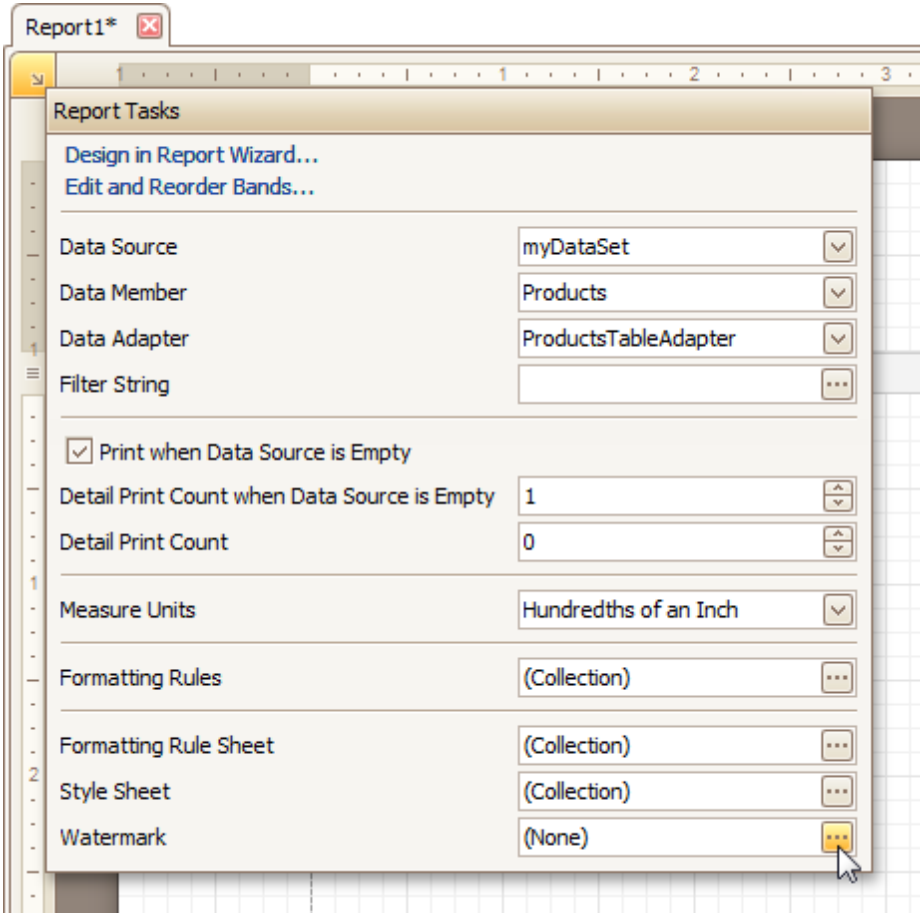
   2.In the **Text** tab of the invoked **Watermark** dialog, define the required properties for the text watermark.
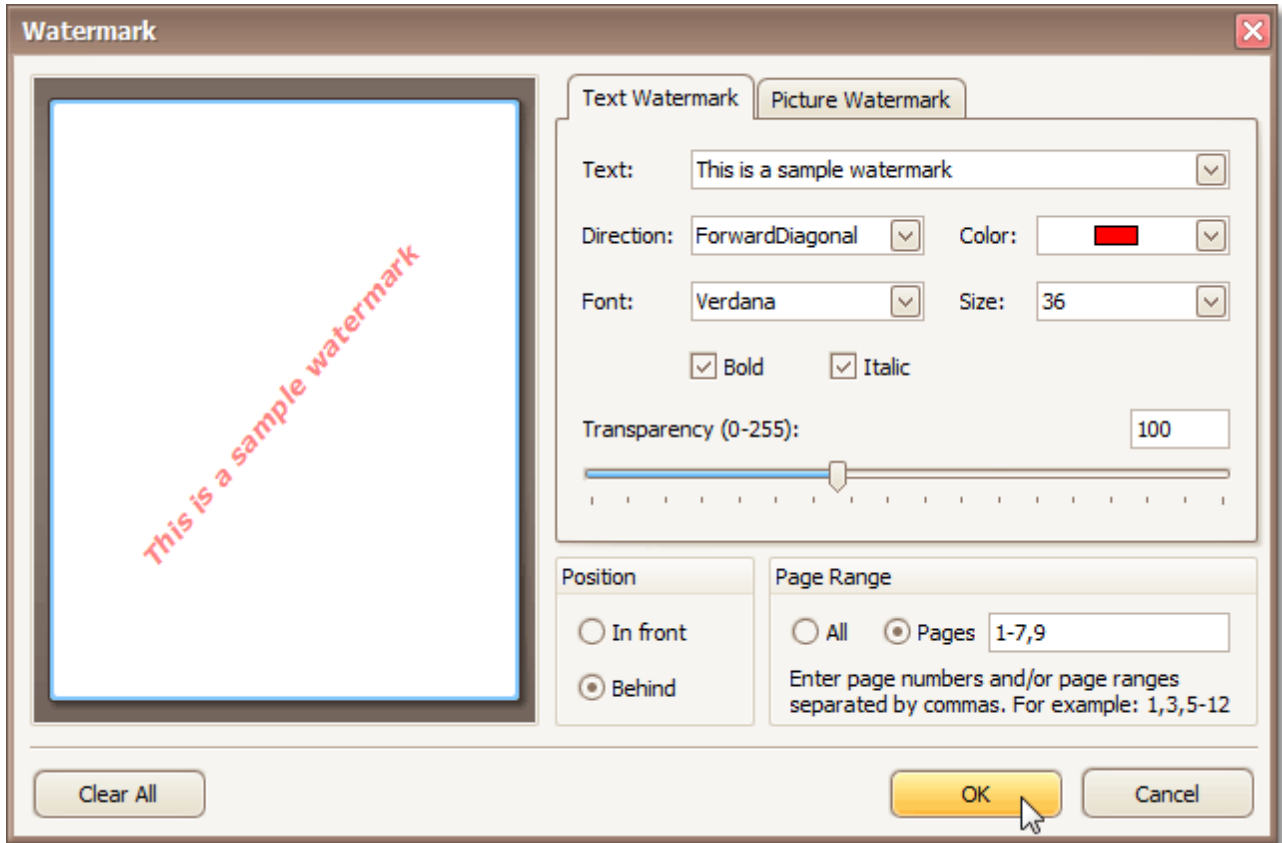
3. Then, switch to the **Picture Watermark** tab, to load the image to be used as a watermark, and define its properties, such as Size mode, Alignment (vertical and horizontal), Tiling, Transparency, Page Range, etc.
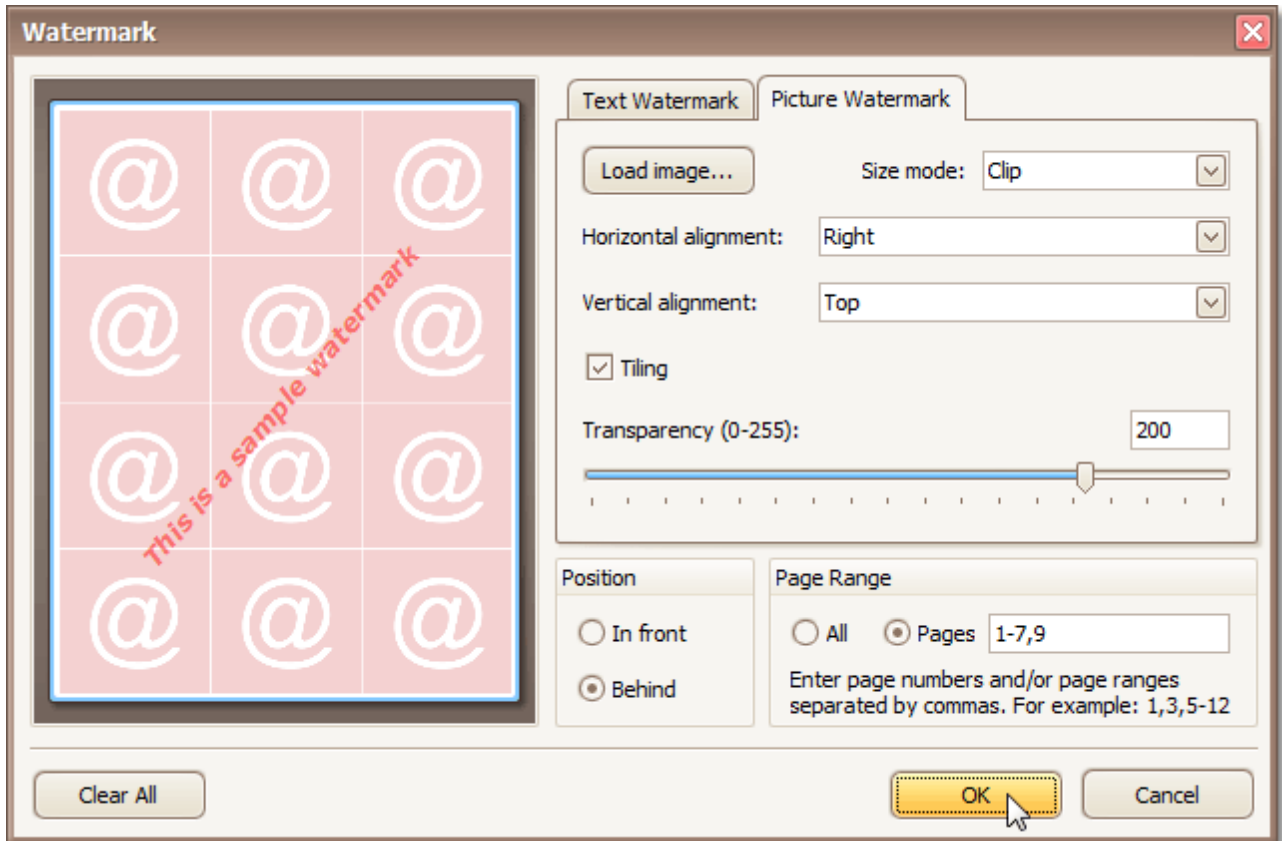
As you can see, it is possible to use both textual and image watermarks simultaneously.

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

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

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 for a Report
- Change Page Settings for a Report

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).
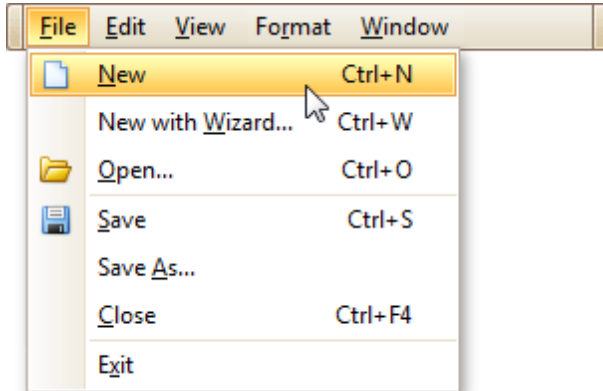
The Main Toolbar contains a button (◻) with the same function.

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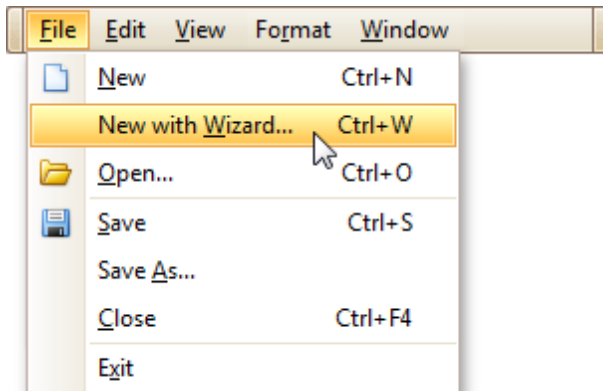
For more information about this option, refer to Report Wizard.

See Also
Controls Positioning
Change Measurement Units for a Report
Change Page Settings for a Report
Bind a Report to Data

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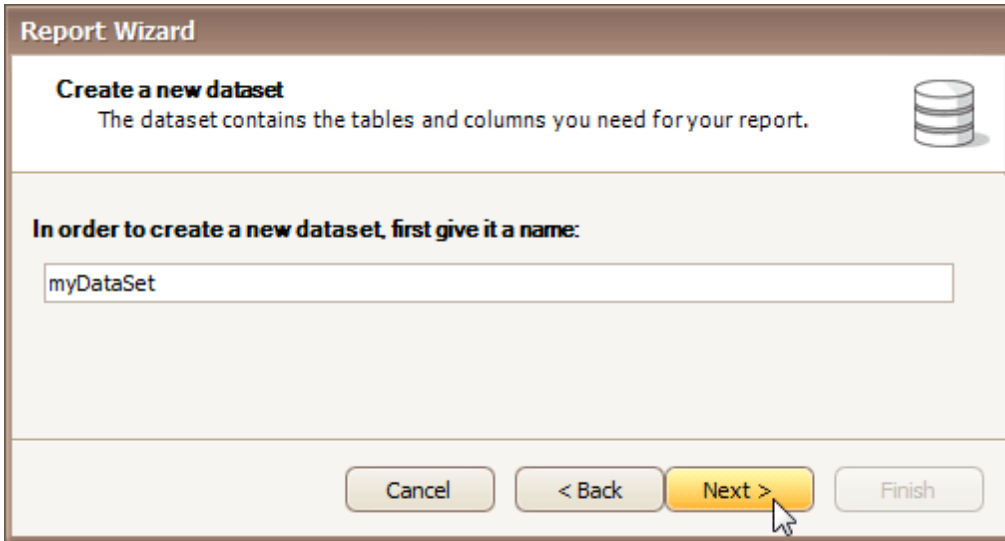
The Report Designer is primarily designed to work with *data-aware reports*, meaning that a report obtains its general (*dynamic*) data from an external *data source* (most types of which are supported). This document describes how a newly created report can be *bound* to a data source.

To bind a report to data, do the following.

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

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

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

Then, in the invoked **Data Link Properties** dialog, explore the **Provider** tab, to choose your data provider.
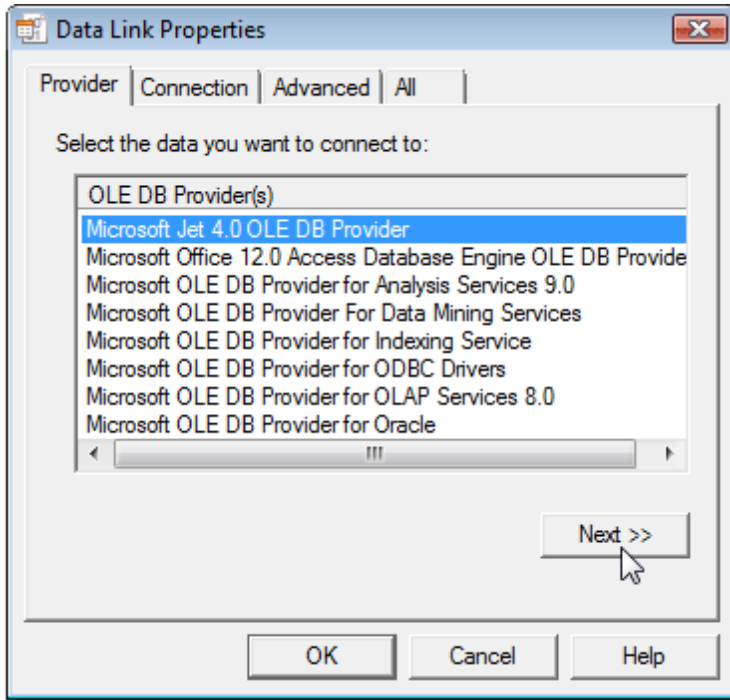
Then, switch to the **Connection** tab, and specify the path to your data source.
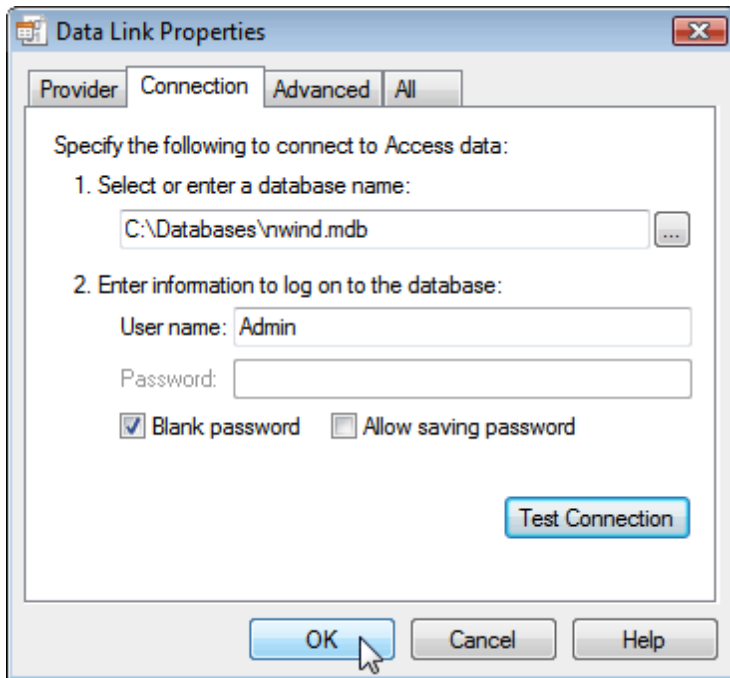
To quit the dialog and apply the changes, click **OK**. Click **Next**, to proceed to the following page.

5. On the next page, select *data members* (*tables* or *views*) from your database. Note that if you choose several tables (e.g. to create a [master-detail report](#)), the Report Designer creates a *data relationship* between them (if possible).
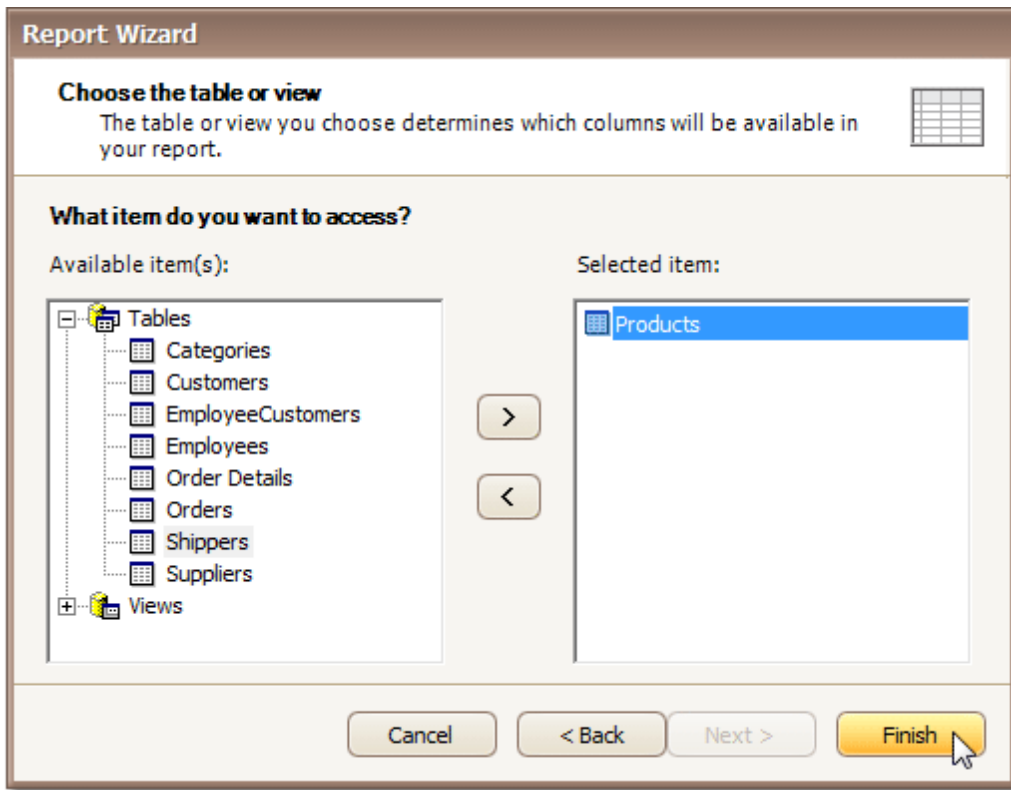
To accomplish data source creation, click **Finish**.

After performing the steps above, the report's **Data Source**, **Data Member** and **Data Adapter** properties are defined.
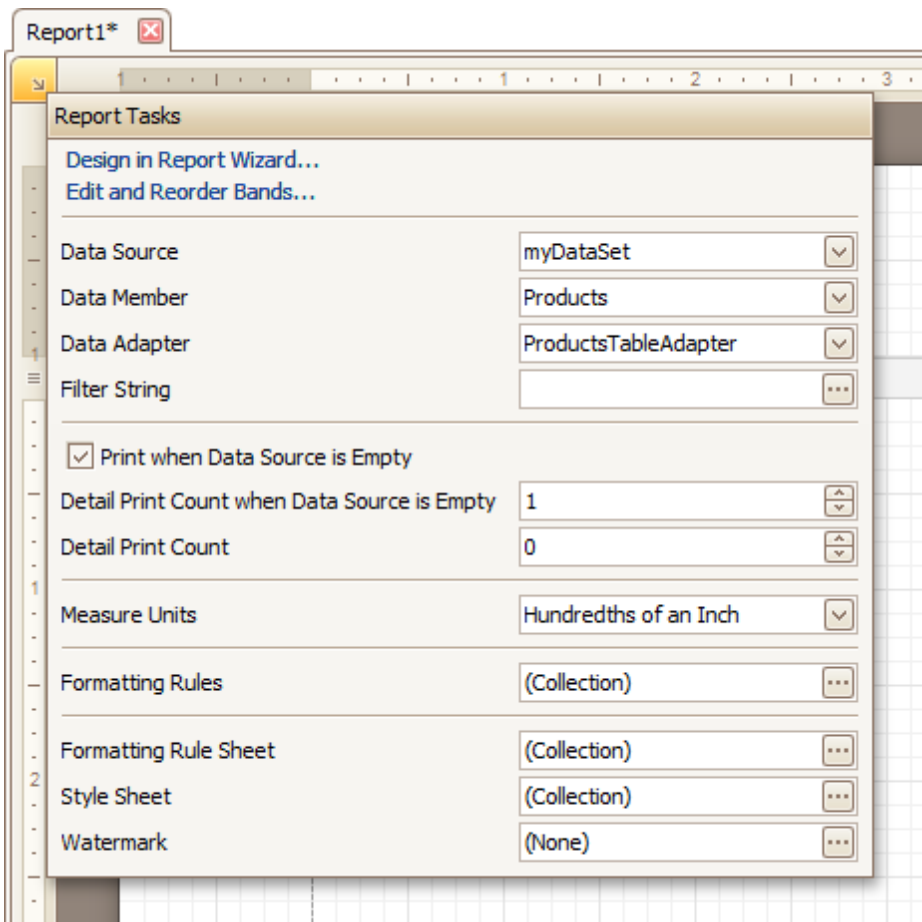
And, the Field List reflects the structure of the report's data source.
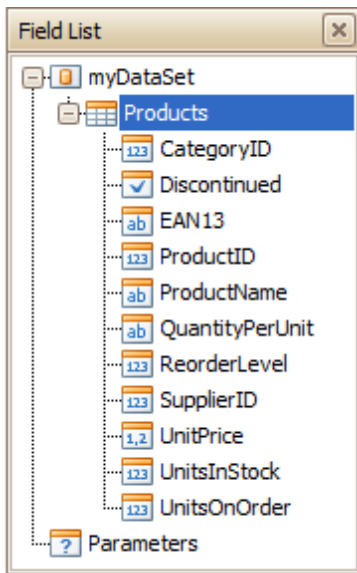
This means that the report has been successfully bound to the data.

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

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**.
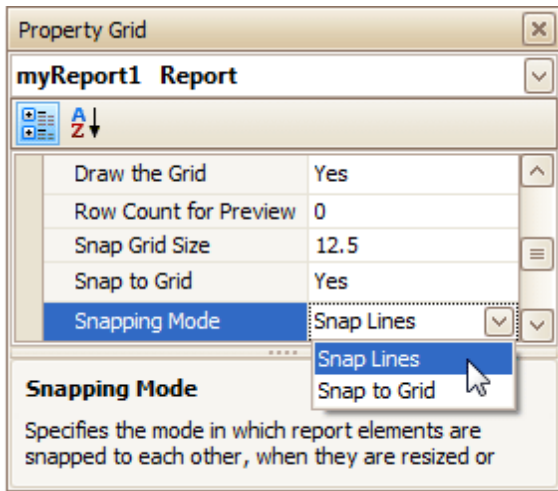
Snap Grid

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.
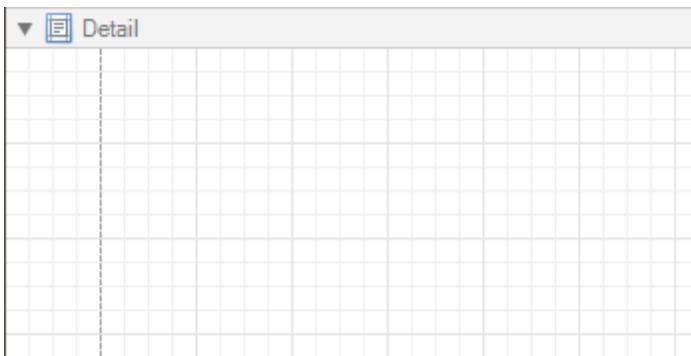
To quickly align a control to the report's Snap Grid, right click the control, and in the invoked Context Menu, click **Align To Grid**.
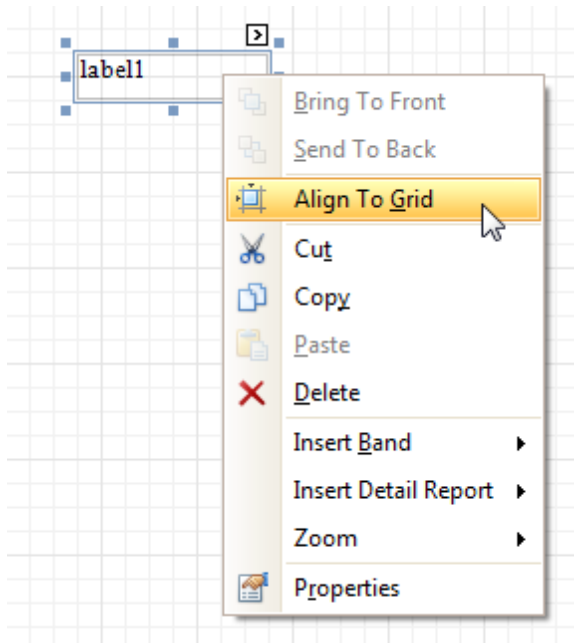
You can choose whether the Snap Grid should be visible, by selecting your report, and setting the **Draw the Grid** option in the Property Grid.
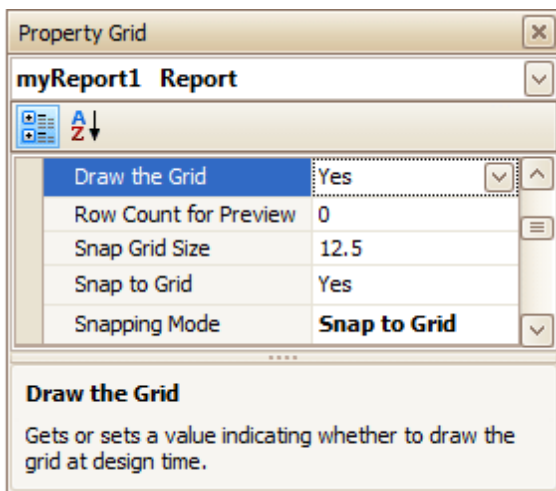
You also can adjust the **Snap Grid Size**, which is measured in the measurement units set for your report.

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).
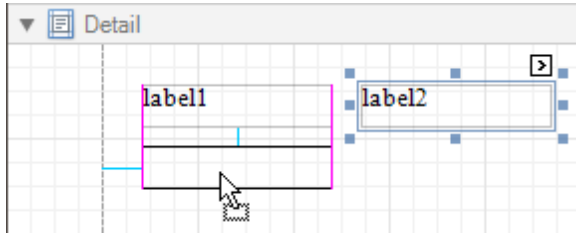
For each report element, you can modify its default Snap Line spacing (*paddings* for bands and Panel, and *margins* for other controls) using the Property Grid.
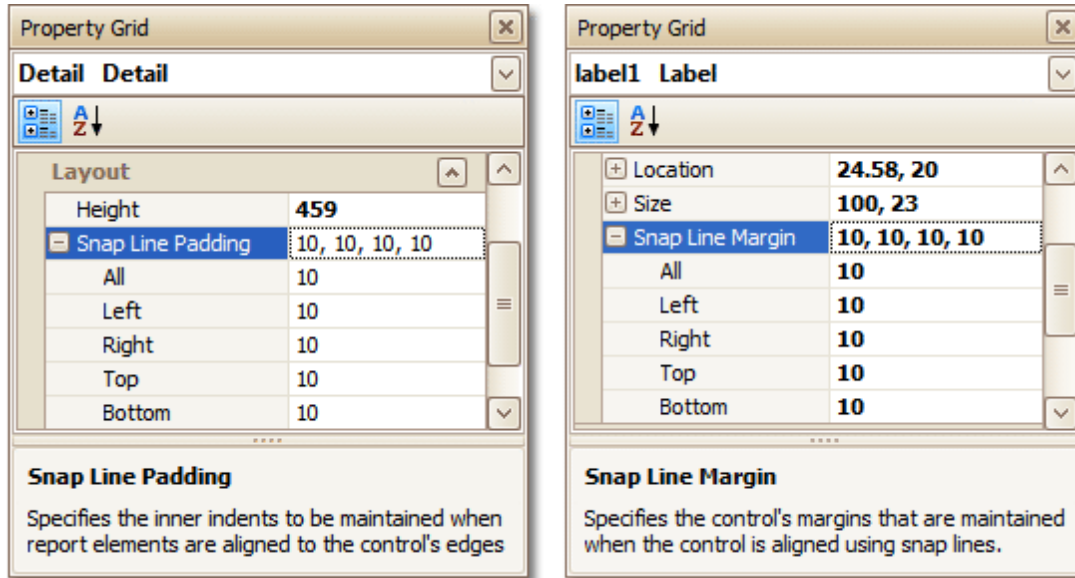
To learn how to manage the position of multiple controls at one time, refer to Change Element Layout in Your Report.

See Also
Change Measurement Units for a Report
Change Page Settings for a Report

Change Measurement Units for a Report

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

This can be specified either using the report's Smart Tag ...
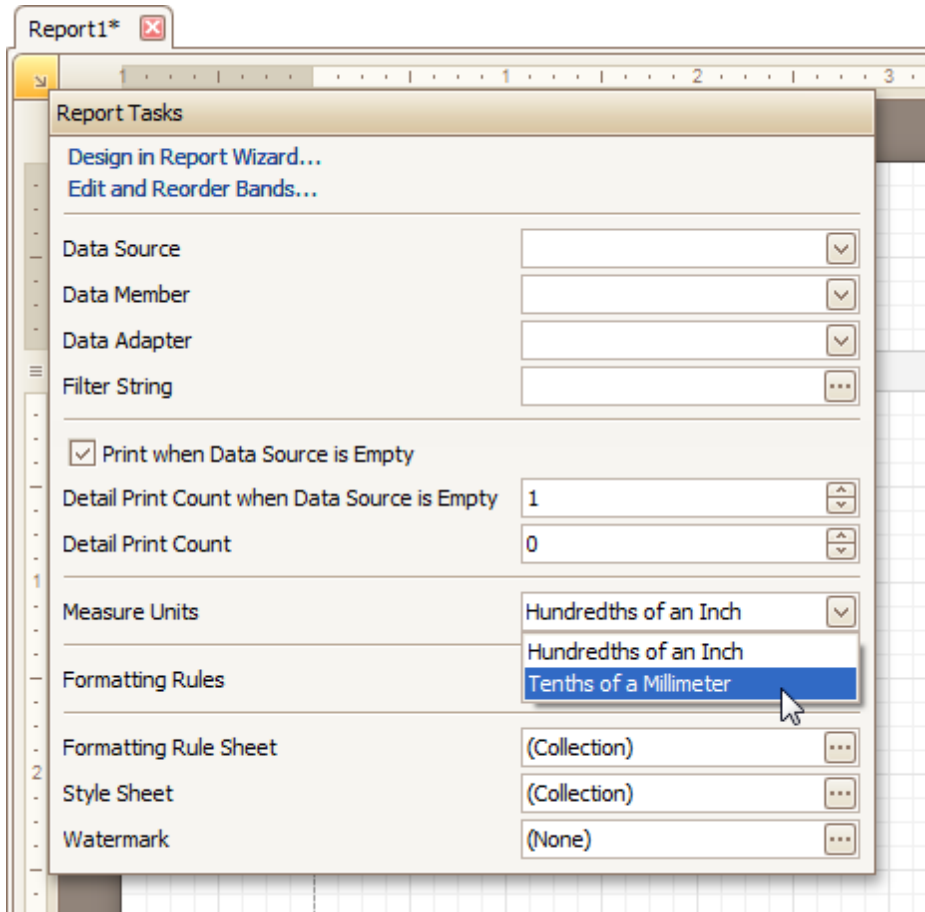
... or via the Property Grid.
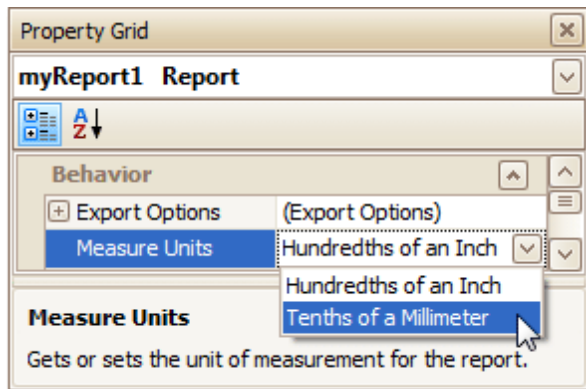
This defines the basic measurement unit for all the unit-related options of a report and its bands and controls (such as *location*, *size*, *border width*, etc.). And, this determines the measurement unit of the report's Snap Grid.

See Also
Controls Positioning
Change Page Settings for a Report

Change Page Settings for a Report

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

- **Using settings of the default printer**

    For the orientation, margins and paper size, you can specify a requirement that applies the corresponding printer settings instead of the report's. In this instance, the page properties in the 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.
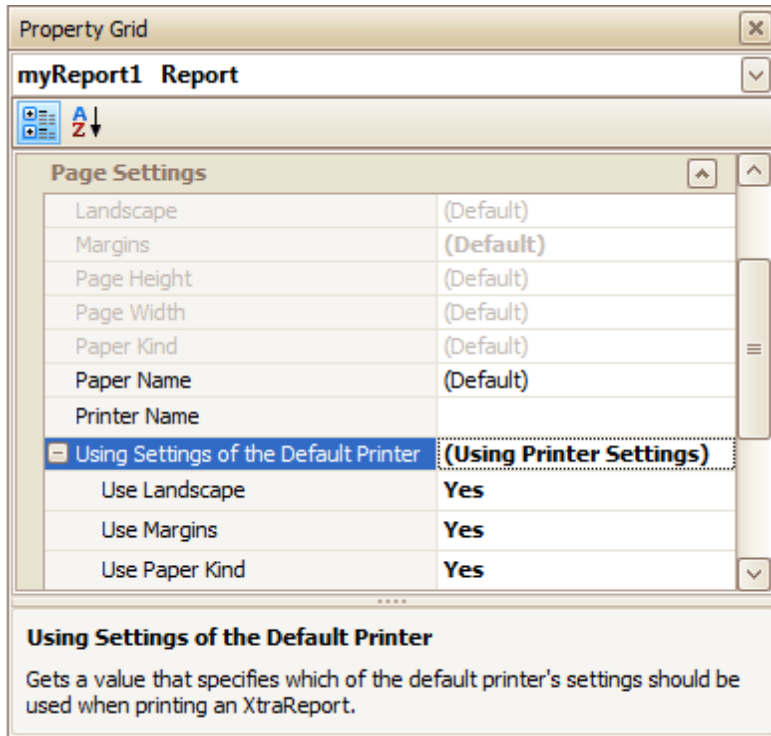
- **Specify the report's page settings**

    While designing the report, you can specify the page settings via the Property Grid:
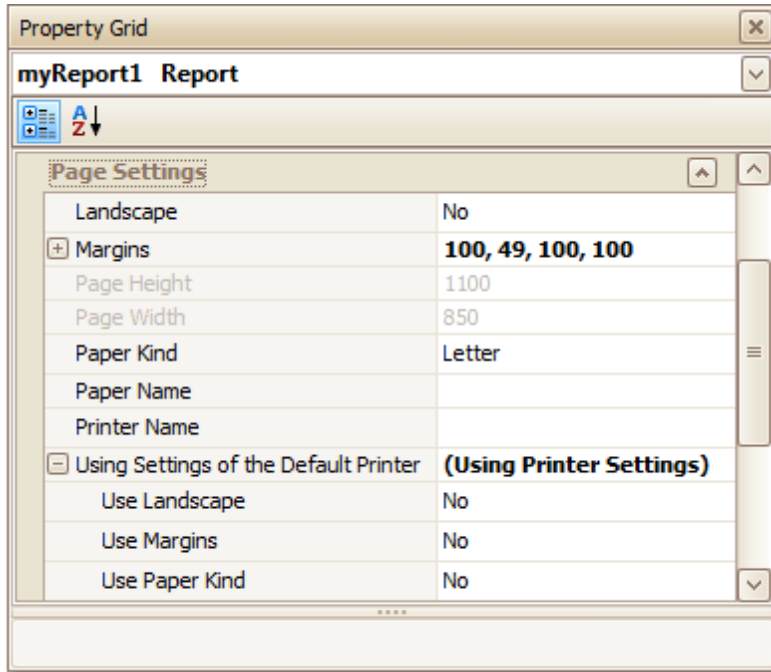
You can set the page orientation and modify the margins. The margin values are expressed in the report's measurement units. You can select from the predefined paper sizes (**Paper Kind** property), choose **Custom** and create your own paper size, or select one which is already defined for this printer (**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**.
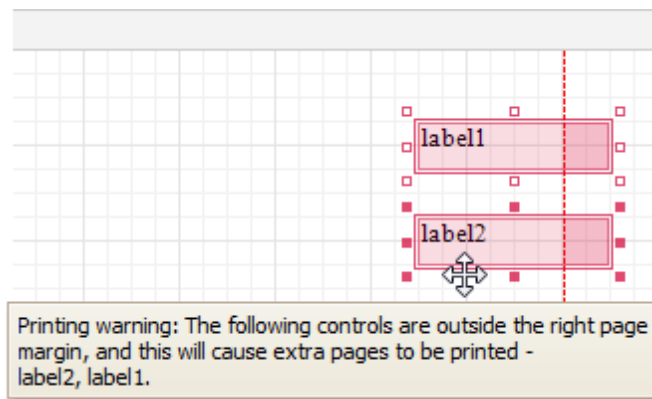
- **Modify the settings in Preview Tab**

  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.
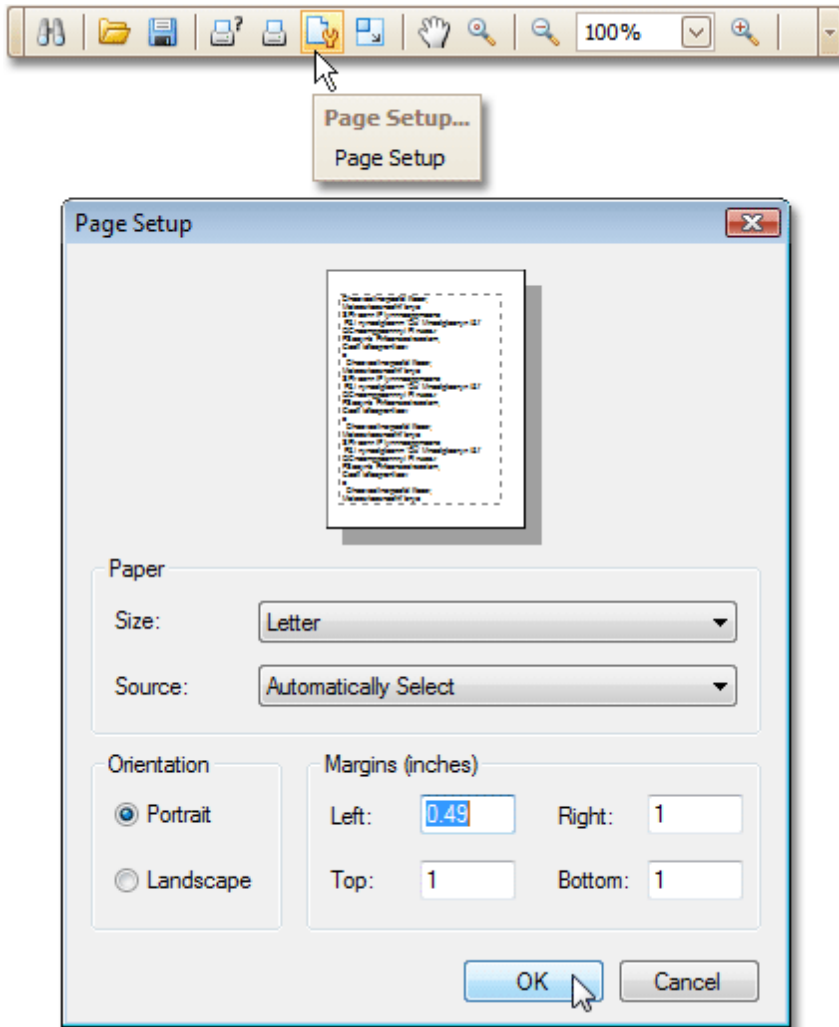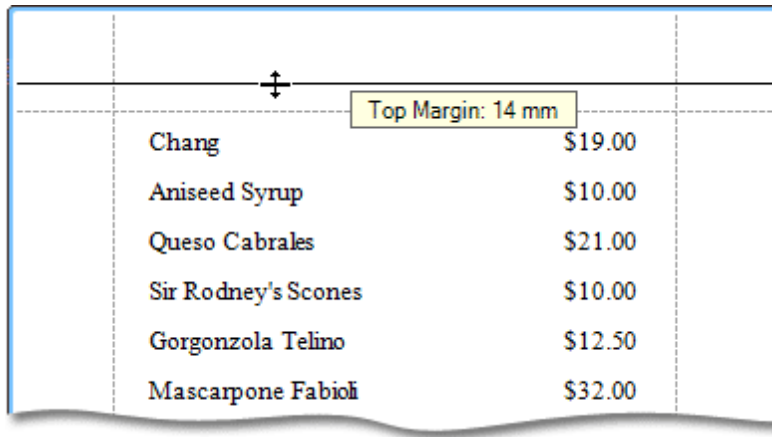
The margins can also be set visually by dragging the dashed lines in the Preview Tab as needed.

To change the measurement units shown in the margins tooltips, customize the report's **Measure Units** property.

Measure Units = Hundredths of an Inch
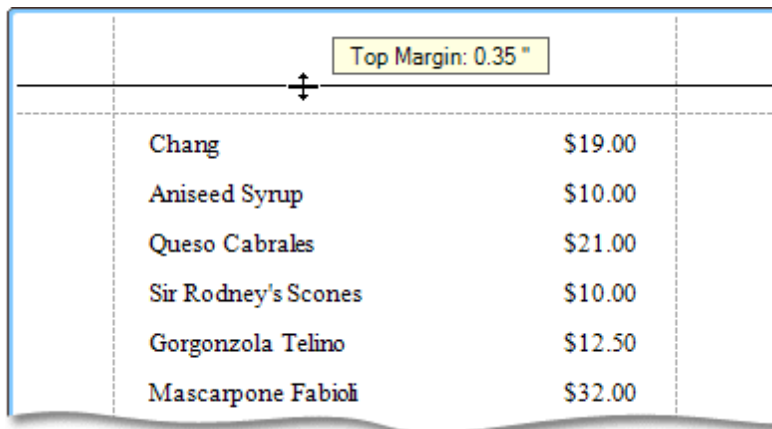
Measure Units = Tenths of a Millimeter

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

See Also
Controls Positioning
Change Measurement Units for a Report

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

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.
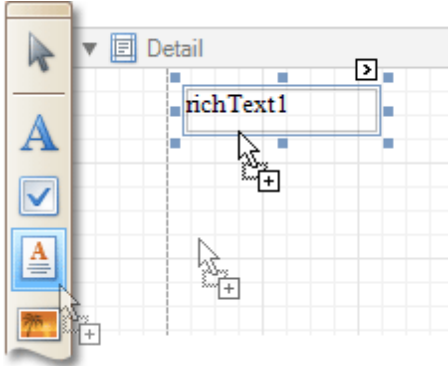
3. Select the created control and click its Smart Tag. In the invoked actions list, click the **Load File...** context link.
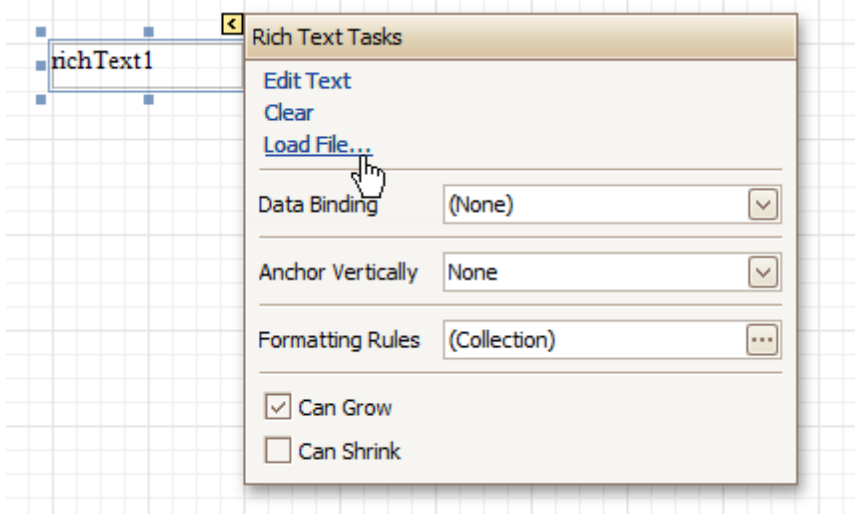
In the invoked dialog, define the path to an RTF or TXT file containing a text of the announcement, and click **Open**.

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**.
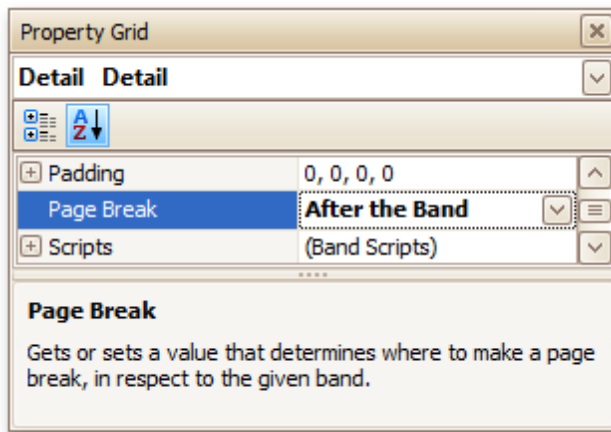
The static report is now ready. Switch to the Preview Tab, and view the result.
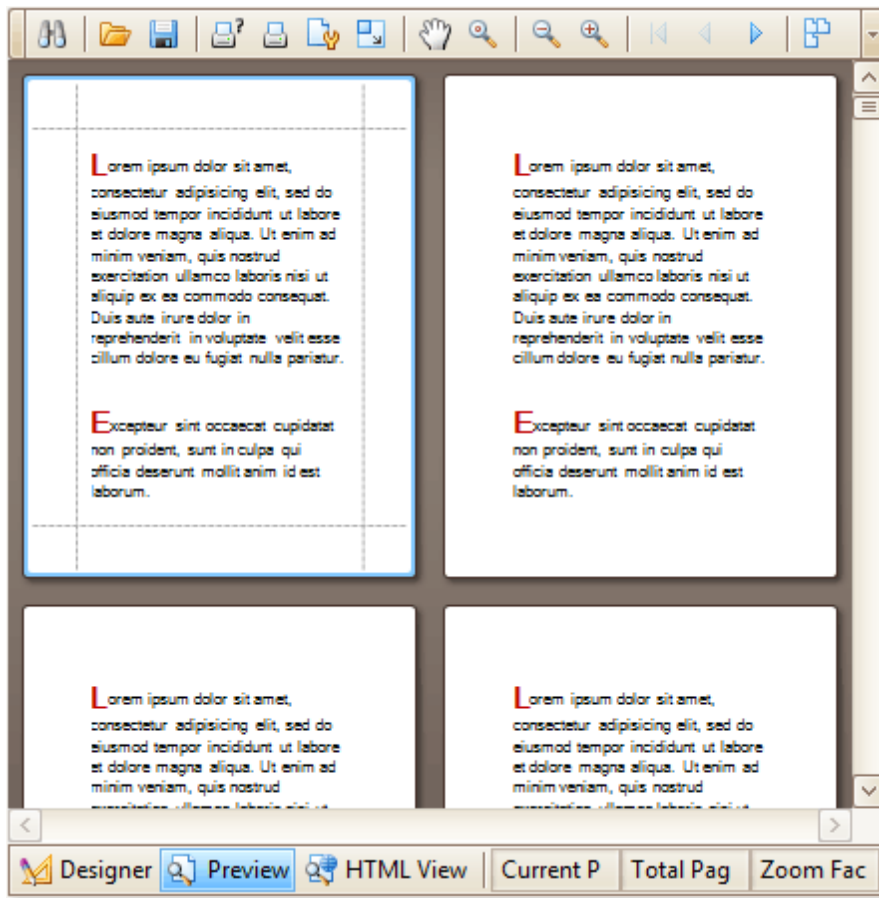
See Also
Table Report
Label Report
Multi-Column Report

Table Report

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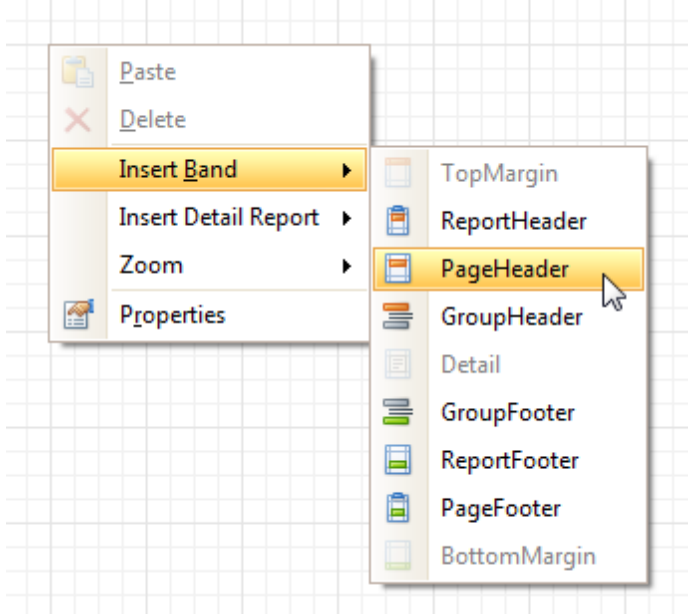
4. Now, add two Table controls to the report's Page Header and Detail band.

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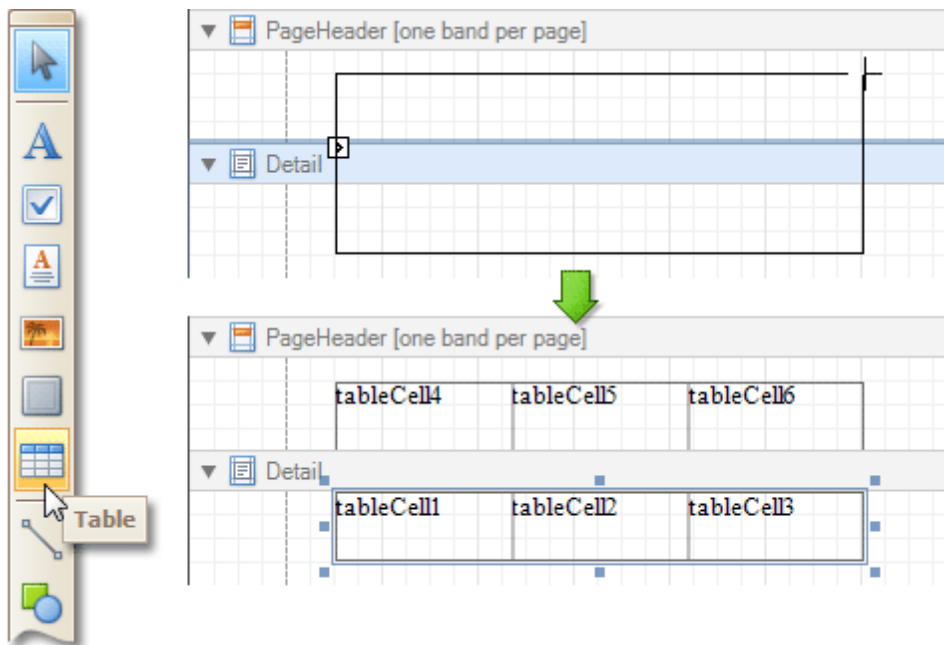
   As a result, two tables are created. One will be used as a header, and the other one - for the report's detail information.

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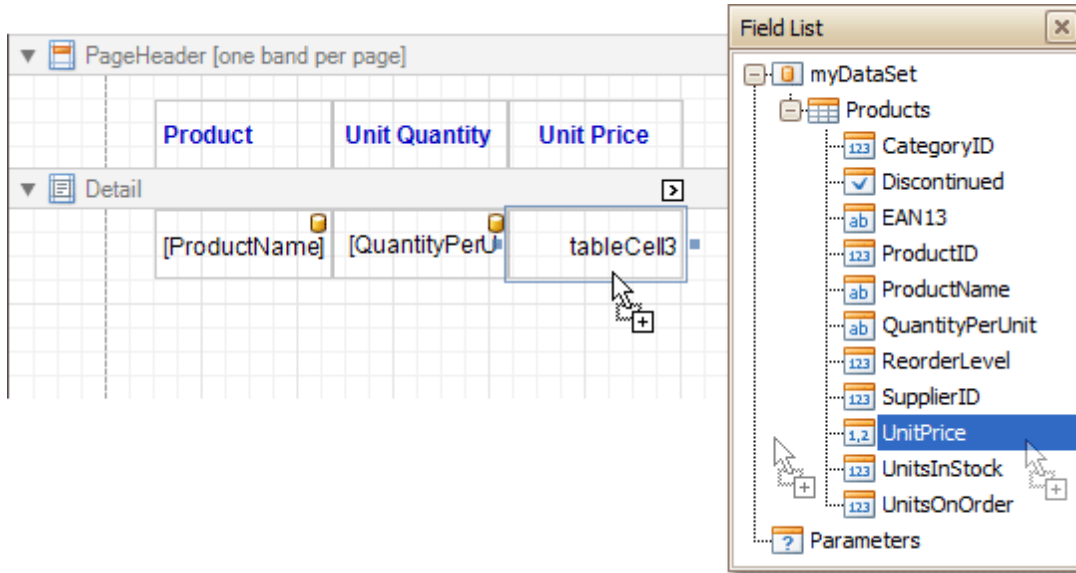
6. Finally, you can customize various properties of the tables, to improve their appearance. For example, using the Property Grid you can define their **Borders**, as well as **Background Color**. To customize the cells' text options, use the Formatting Toolbar.

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

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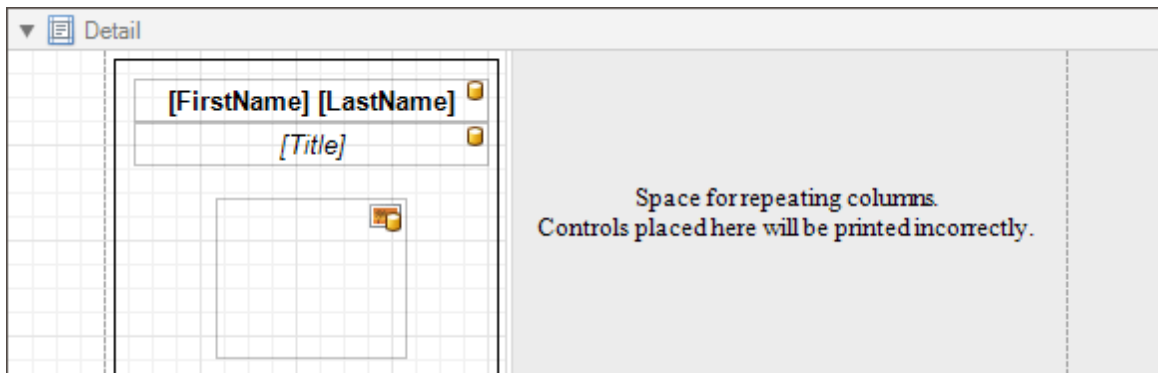
Note that you can employ the mail merge, to combine multiple data fields within the same control.

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

See Also

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

1. Create a new report.
2. Bind the report to a data source. And, on the Reports Wizard's last page, select the required data tables, and click **Finish**.
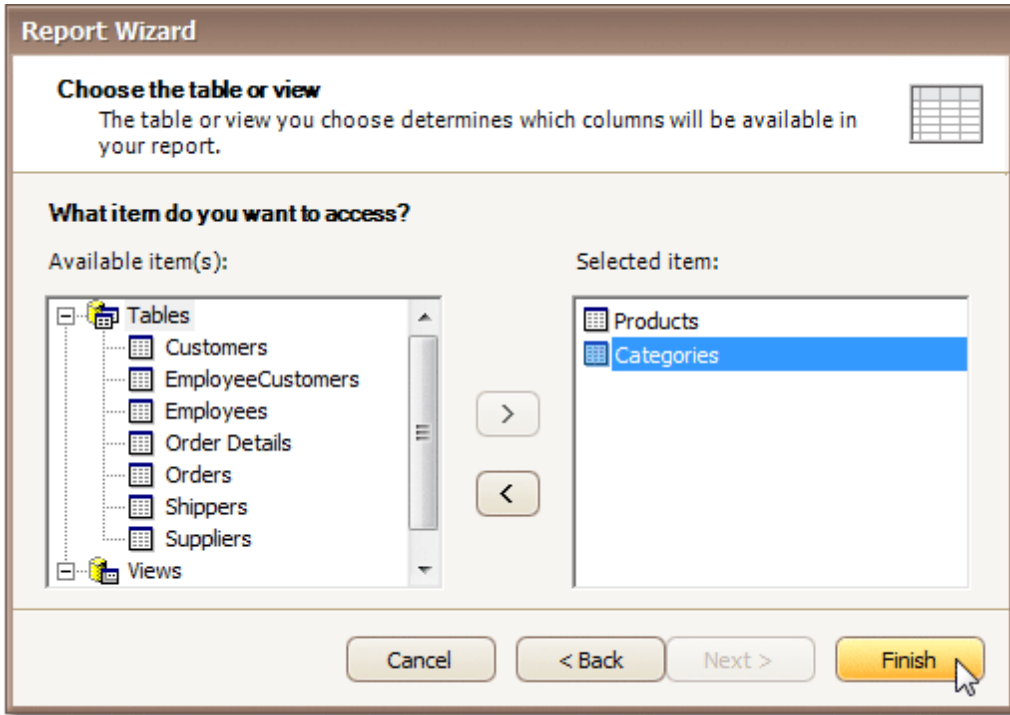
If possible, the Report Wizard will automatically create the *data relationship* (e.g. by the common key field) between the selected tables.
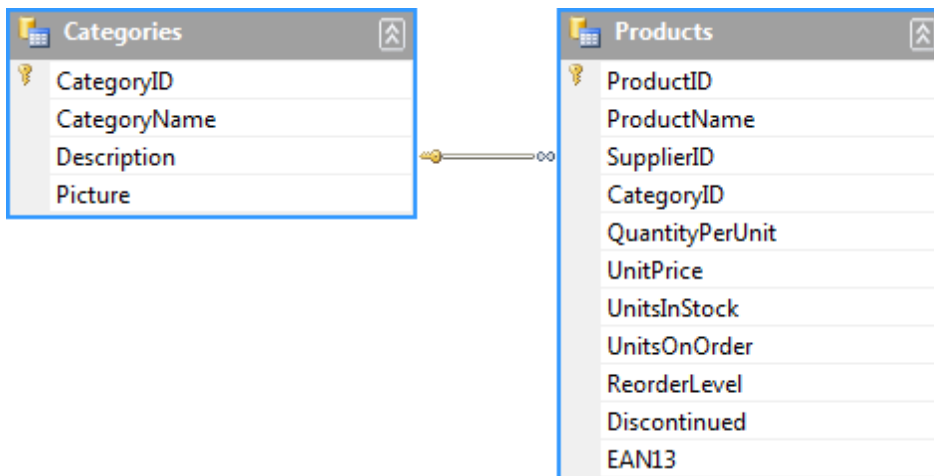
Then, if the relation is successfully created, you'll see the corresponding node in the Field List.
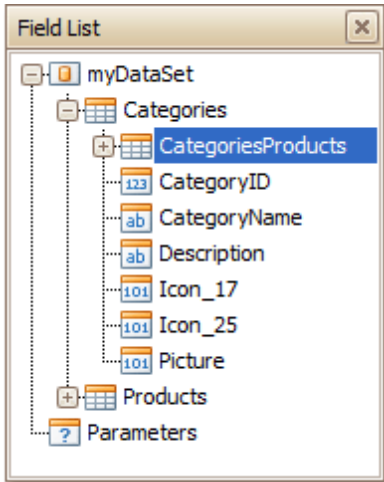
3. Now, to add a Detail Report band, right-click anywhere on the report's surface, and in the invoked Context Menu, point to **Insert Detail Report**. When the report's data source contains a data relationship, it is displayed in the Context Menu.
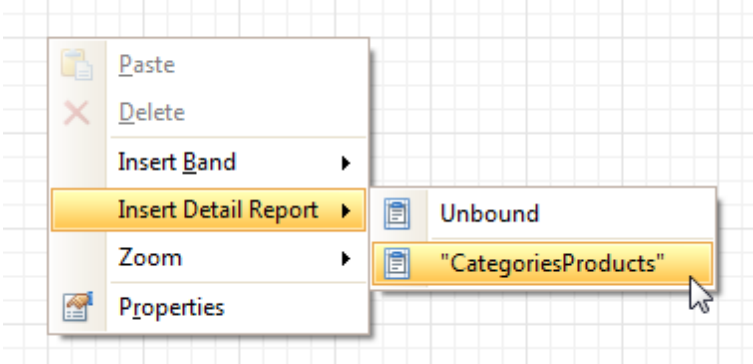
4. Then, drop the required data fields from the Field List onto the corresponding bands.

   As for the Detail Report band, note that you should drop items from the *relation node* (in this example it is the **Categories Products** section), or there will be incorrect output in the report.
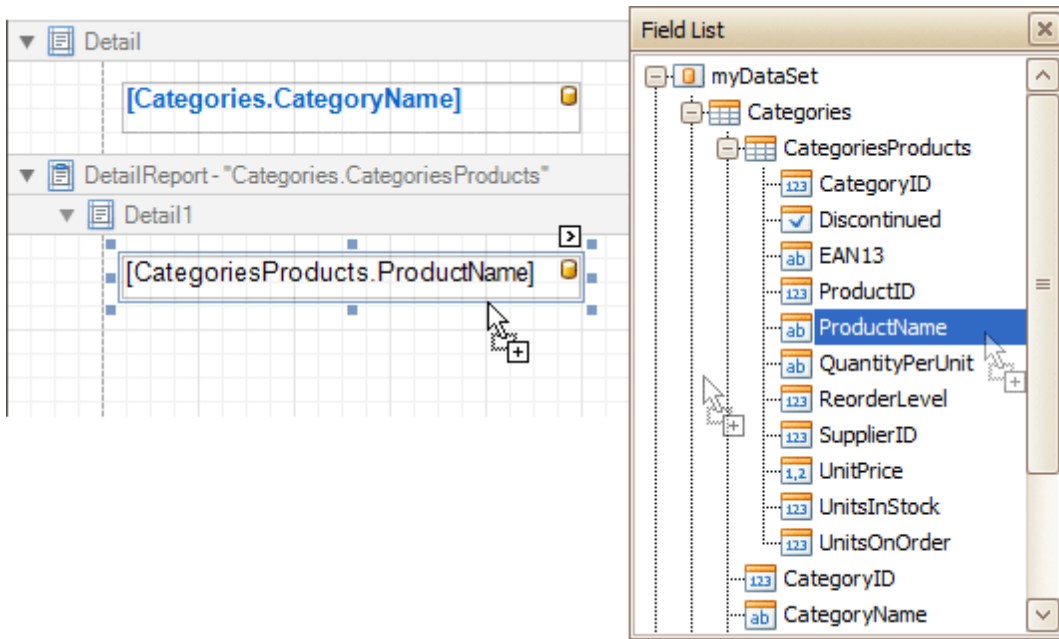
The master-detail report is now ready. Switch to the Preview Tab, and view the result.

Beverages

Côte de Blaye

Ipoh Coffee

Condiments

Northwoods Cranberry Sauce

Vegie-spread

Confections

Sir Rodney's Marmalade

Gumbär Gummibärchen

Schoggi Schokolade

Tarte au sucre

Dairy Products

Queso Manchego La Pastora

Mascarpone Fabioli

Raclette Courdavault

Camembert Pierrot

Gudbrandsdalsost

Mozzarella di Giovanni

See Also

[Parameterized Report](#)

Multi-Column Report

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

To demonstrate the multi-column feature, we'll use a report with grouping, similar the one created in the following tutorial: 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.
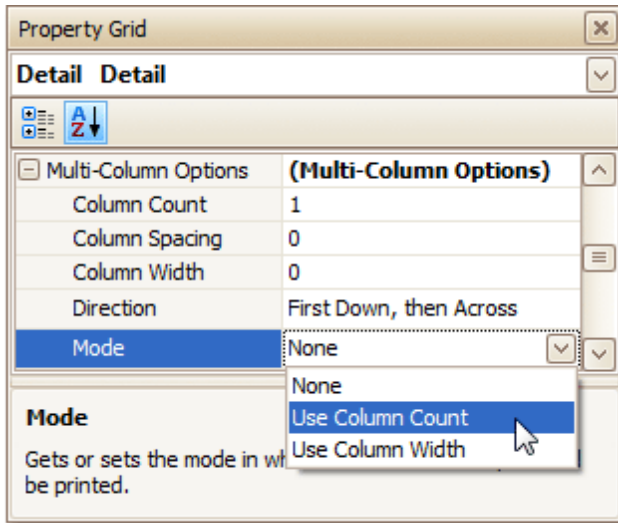
2. Then, if you've chosen to **Use Column Count**, set the **Column Count** to **2**, and **Column Spacing** to **10**.

   The **Direction** determines the order in which records of the same group are processed.
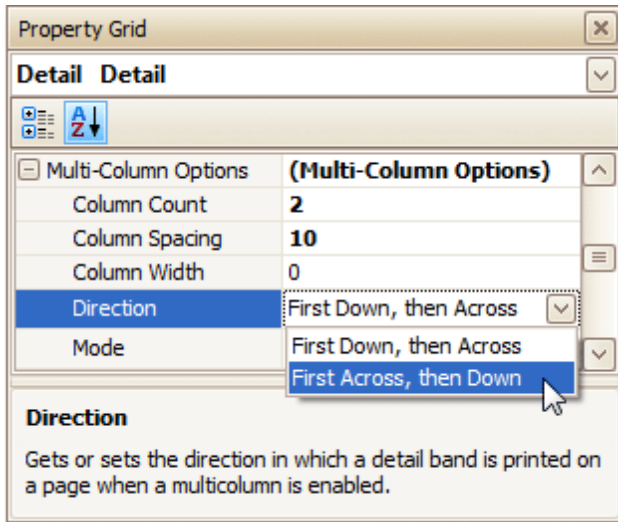
3. Now, on the Detail band's surface a grey area appears, delimiting the available column's width. Adjust the controls width, so that they fit within the effective borders.
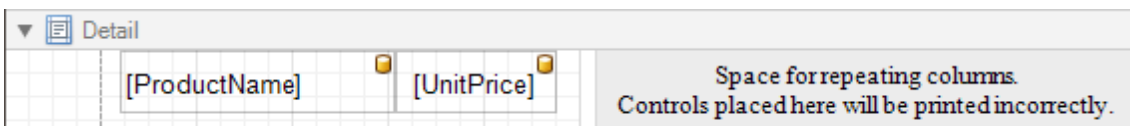
The multi-column report is now ready. Switch to the Preview Tab, and view the result.

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 Shouyu	$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
Chocolade	$12.75	Maxilaku	$20.00
Valkoinen suklaa	$16.25	Tarte au sucre	$49.30
Scottish Longbreads	$12.50		

See Also
Label Report

Cross-Tab Report

This tutorial describes the steps to create a *cross-tab report* using a 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.
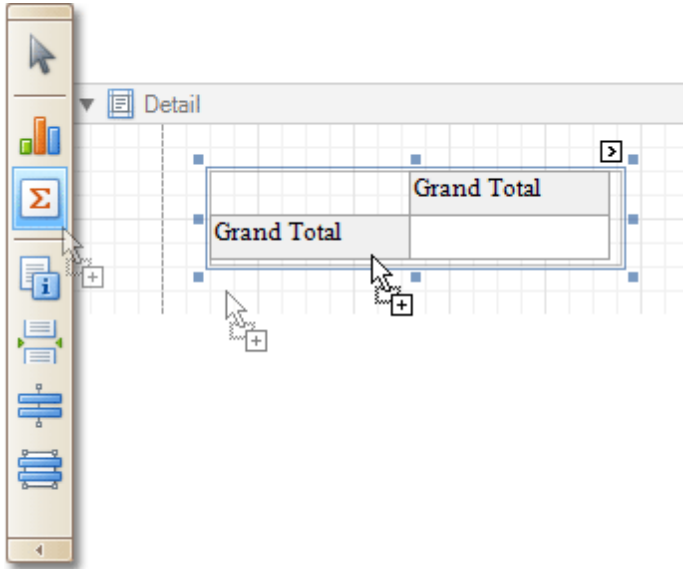
3. To bind the pivot grid to a data source, click its Smart Tag, and in the invoked actions list, expand the **Data Source** drop-down selector and click **Add New DataSource**.
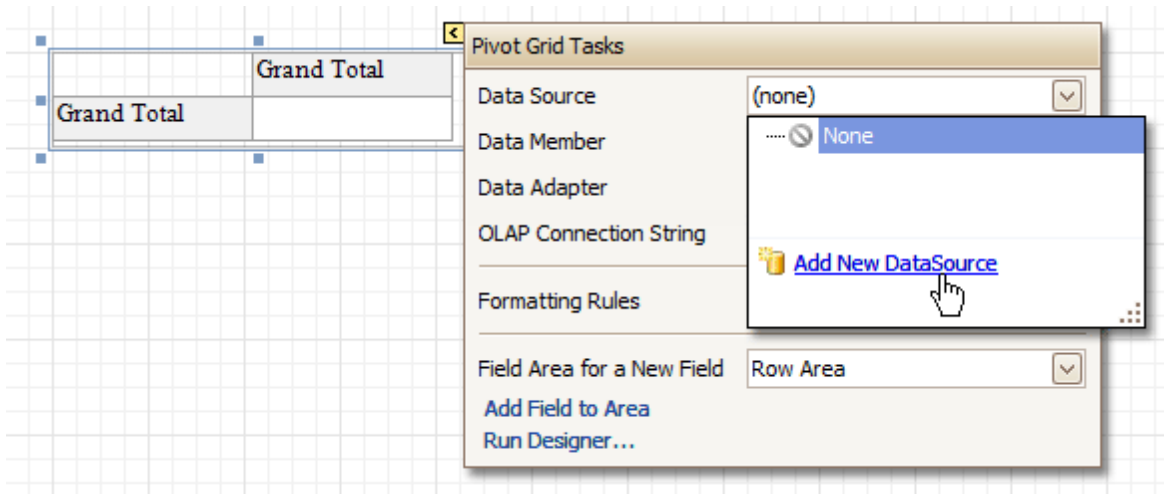
The invoked **Report Wizard** will guide you through the process of assigning a data source to the grid. For detailed instructions on the Wizard's steps, refer to Bind a Report to Data, as this process is similar.

Note

Note that after these steps, the report's **Data Source** property must be set to **None**.
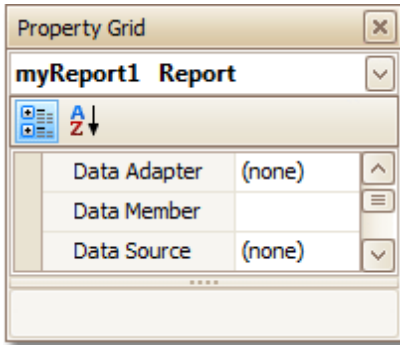
Otherwise, the grid will be blank at the preview and repeated as many times as there are records in the data source.

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

So once again, click the grid's Smart Tag, and in the invoked actions list, click the **Run Designer...** link.
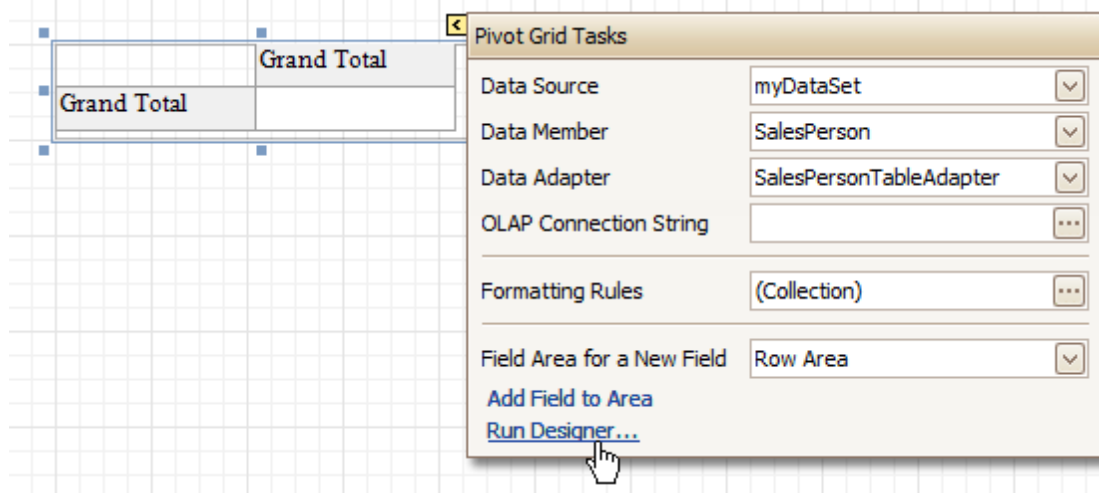
5. In the invoked **Property Editor**, click **Retrieve Fields**.
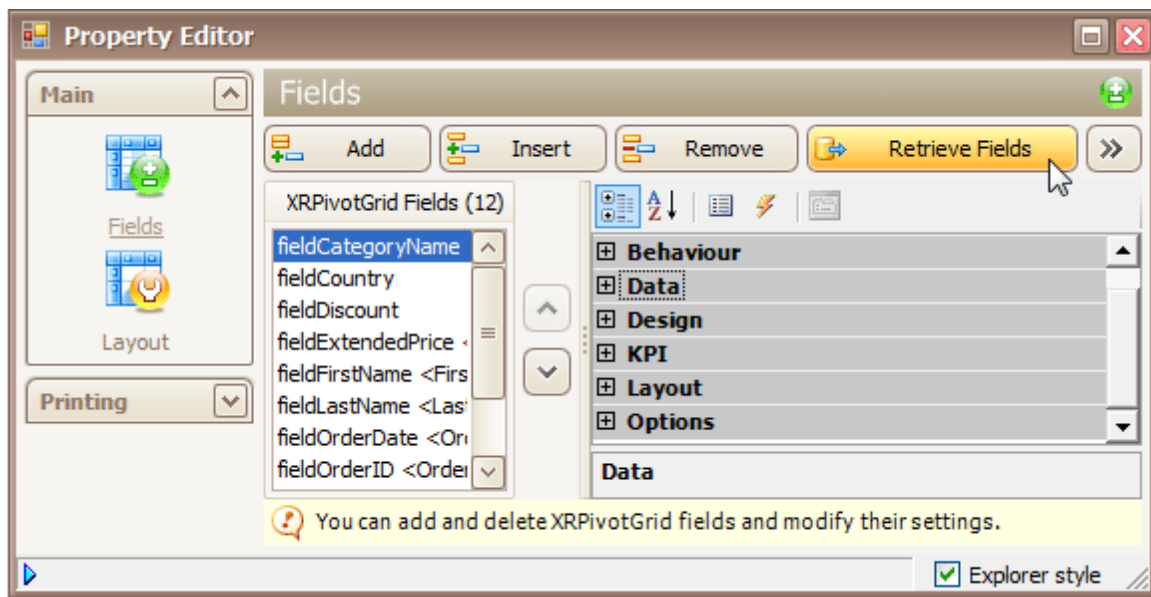
6. Then, switch to the **Layout** section in the navigation bar on the left.

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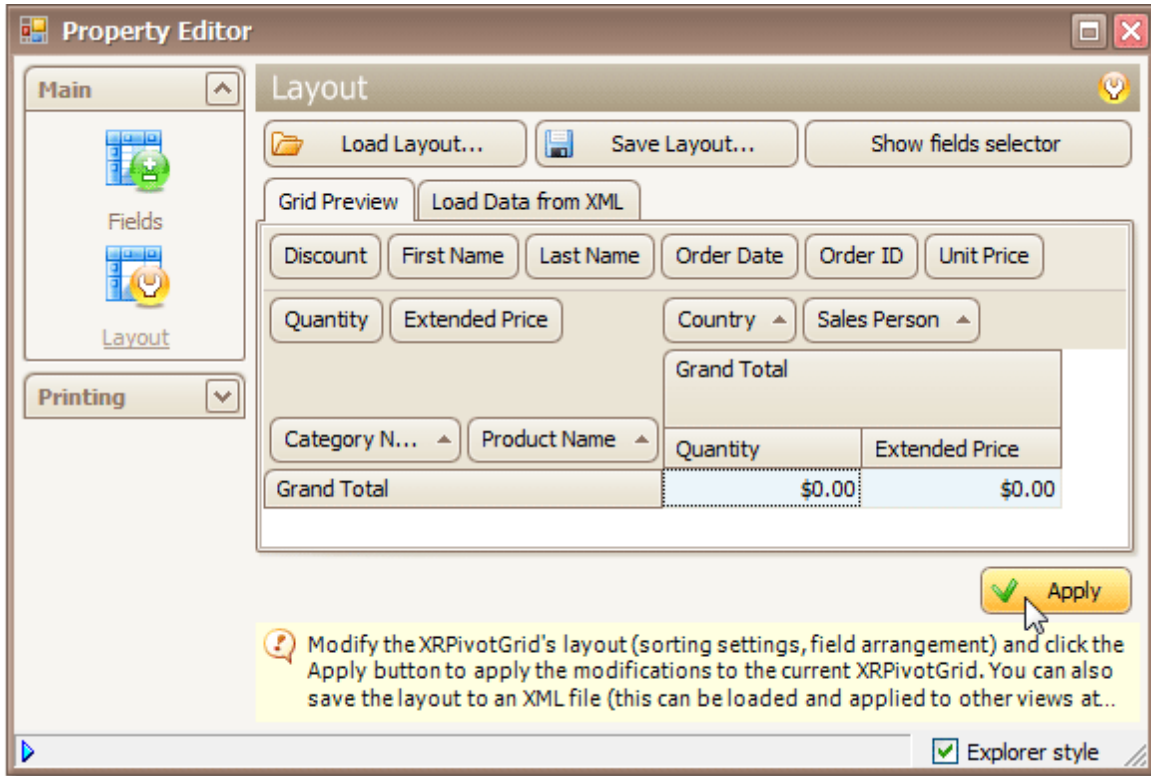
Click **Apply** and close the editor.

7. In the last step, you can set your report's **Vertical Content Splitting** option to **Smart**. This will split the grid's columns precisely by their borders in the Print Preview.
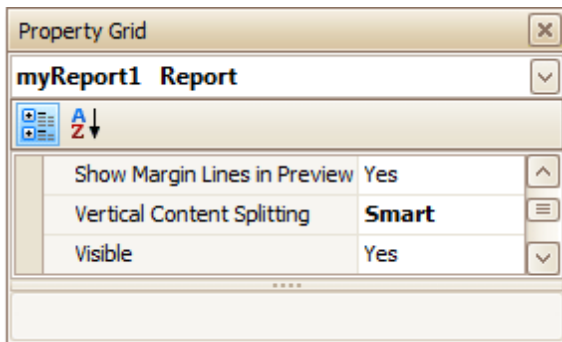
The cross-tab report is now ready. Switch to the Preview Tab, and view the result.

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				
	Lakkalikööri	73	$977.58	55	$751.50
	Laughing Lumberja				
	Outback Lager	51	$744.00	36	$540.00
	Rhönbräu Klosterbi	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	$9,450.20
Condiments	Aniseed Syrup	74	$740.00	20	$180.00
	Chef Anton's Cajur			6	$132.00
	Chef Anton's Guml			4	$85.40
	Genen Shouyu			12	$176.70
	Grandma's Boysenl	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	$4,648.47

See Also

Master-Detail Report (Detail Report Bands)

Parameterized Report

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

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

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

1. In the Field List window, right-click over the **Parameters** section and in the invoked menu, click **Add Parameter**.
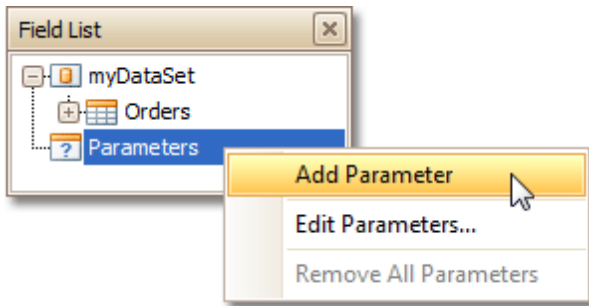
   Repeat this action to create the second parameter.

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

   Then, repeat this step for the second parameter.
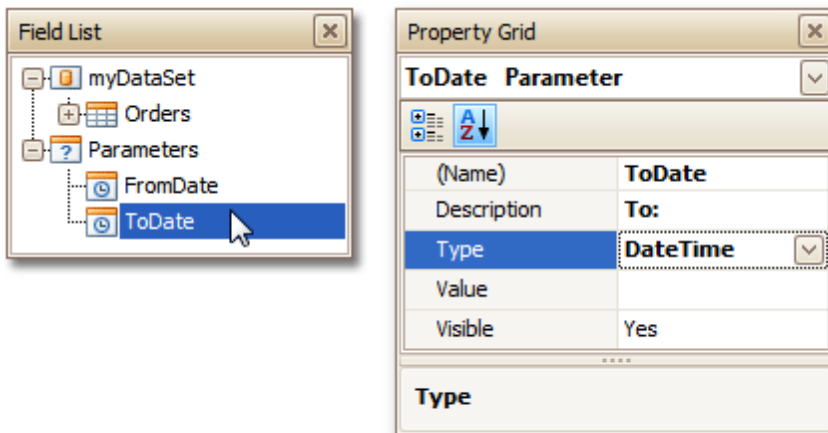
   Now, every time your report is previewed, you will be asked to specify two dates.

Note

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

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

3. Click your report's 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**.

01/02/95	10369	USA	$195.68
01/03/95	10370	Switzerland	$1.17
01/03/95	10371	France	$0.45
01/04/95	10372	Brazil	$890.78
01/05/95	10373	Ireland	$124.12
01/05/95	10374	Poland	$3.94
01/06/95	10375	USA	$20.12
01/09/95	10376	Canada	$20.39
01/09/95	10377	UK	$22.21
01/10/95	10378	Sweden	$5.44
01/11/95	10379	Brazil	$45.03
01/12/95	10380	Ireland	$35.03
01/12/95	10381	Venezuela	$7.99
01/13/95	10382	Austria	$94.77
01/16/95	10383	UK	$34.24

Parameters

From: 1/1/1995

To: 1/31/1995

Reset   Submit

Designer | Preview | HTML View | Scripts | Page 1 of 1 | Zoom Factor: 100%

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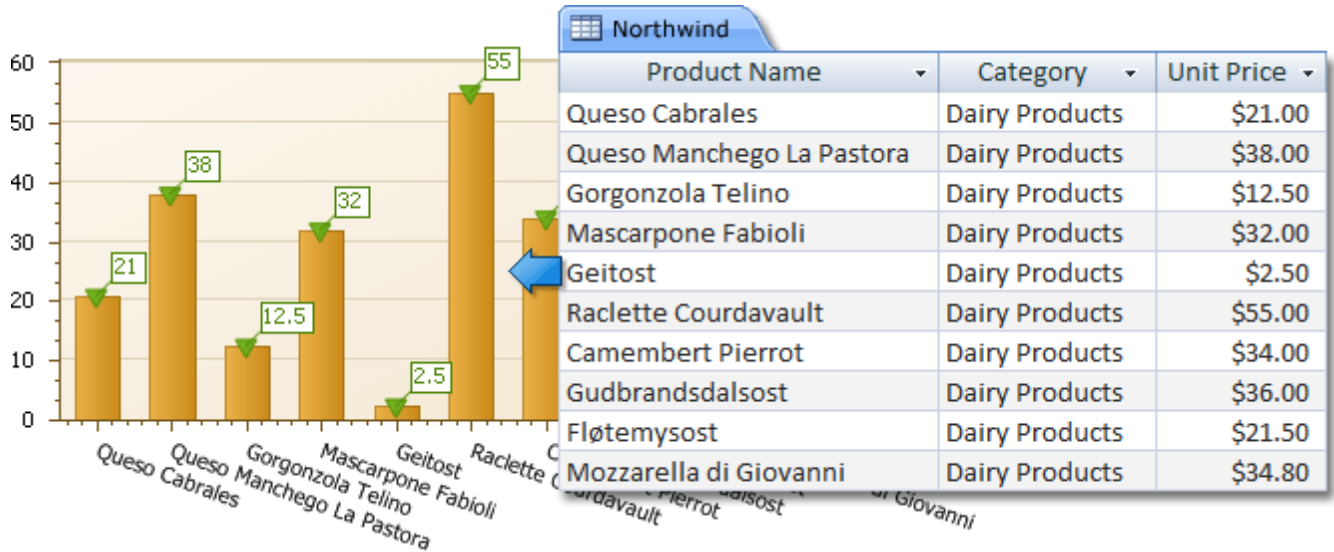
To adjust a Chart by manually creating its series, do the following.

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.

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

So once again, click the Chart's Smart Tag, and in the invoked actions list, click the **Series...** link.
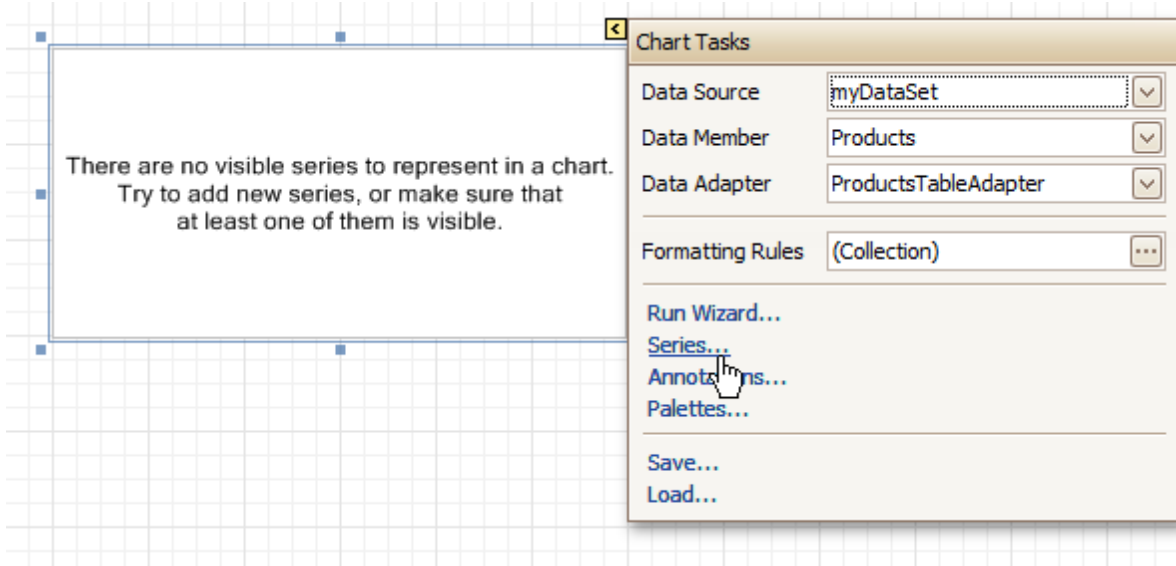
5. Now, in the invoked **Series Collection Editor**, create a *series* of the required *view type* (e.g. Bar).

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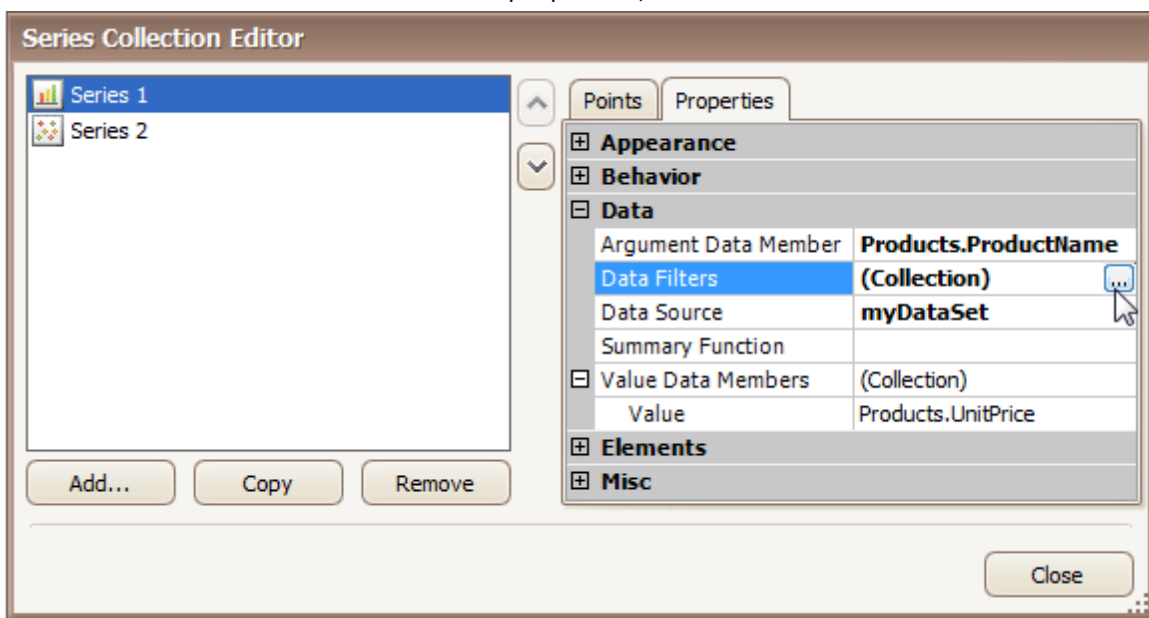
In addition, you can filter the series data. To do this, click the ellipsis button for its **Data Filters** property, and in the invoked dialog, create and adjust the filtering criteria.
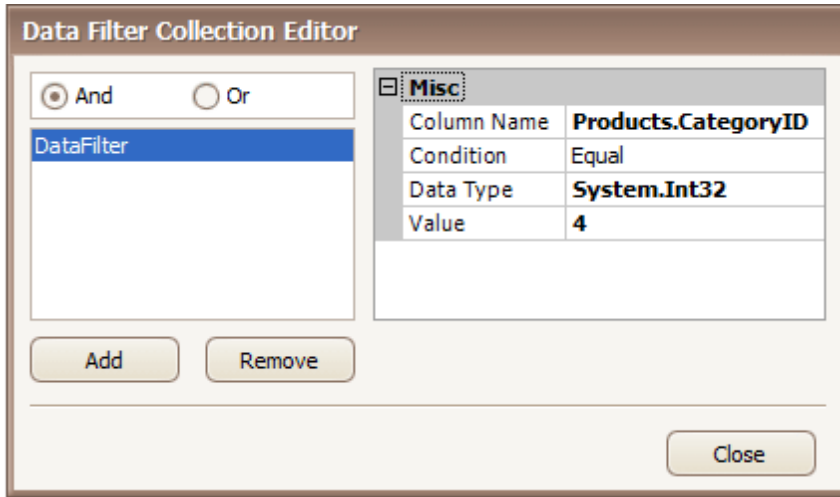
To save the changes and quit the dialog, click **Close.**

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.
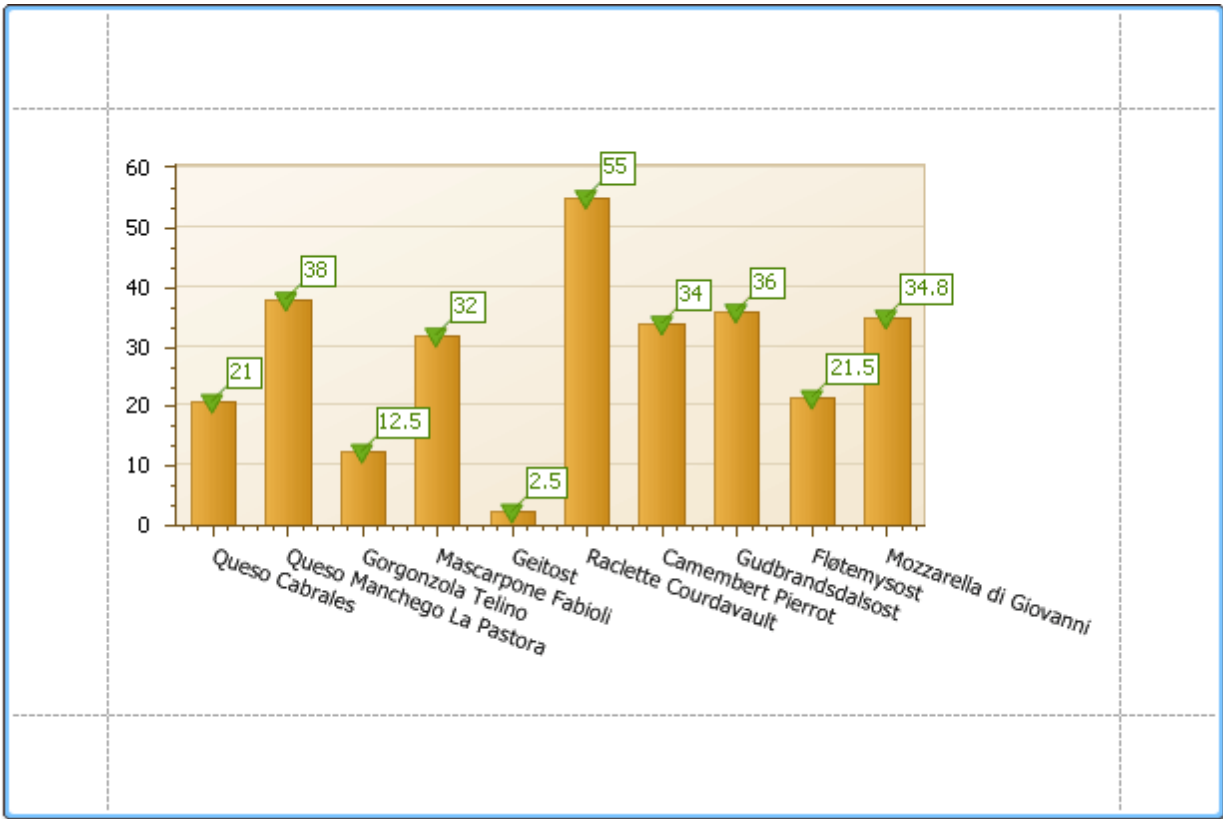
See Also

[Chart with Dynamic Series](#)

Chart with Dynamic Series

This document describes how to create a report with a <u>Chart</u> 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*.
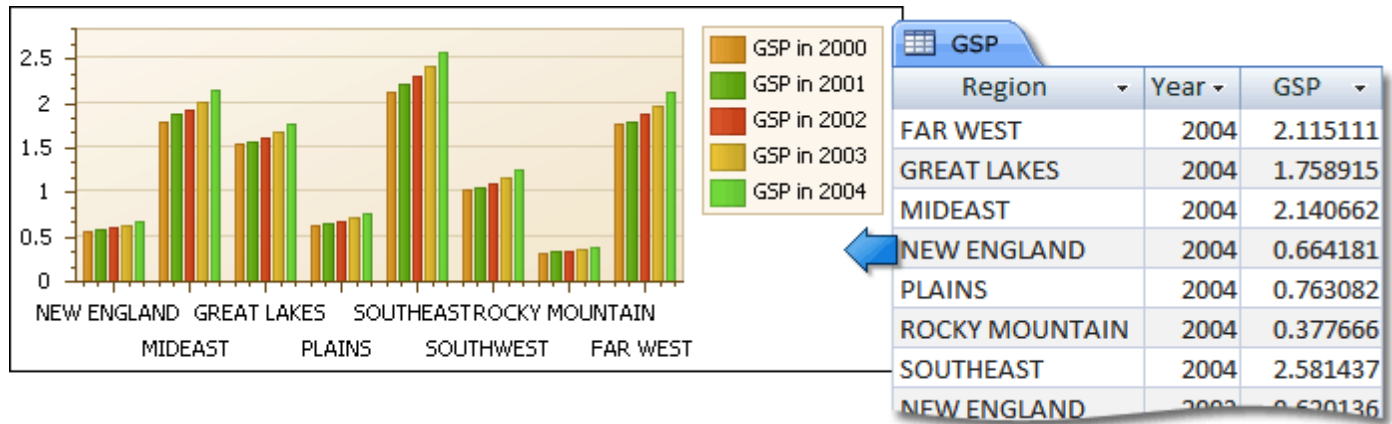
Note that in this scenario, the *view type*, and certain other settings, will be the same for all series.

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

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

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

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

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.
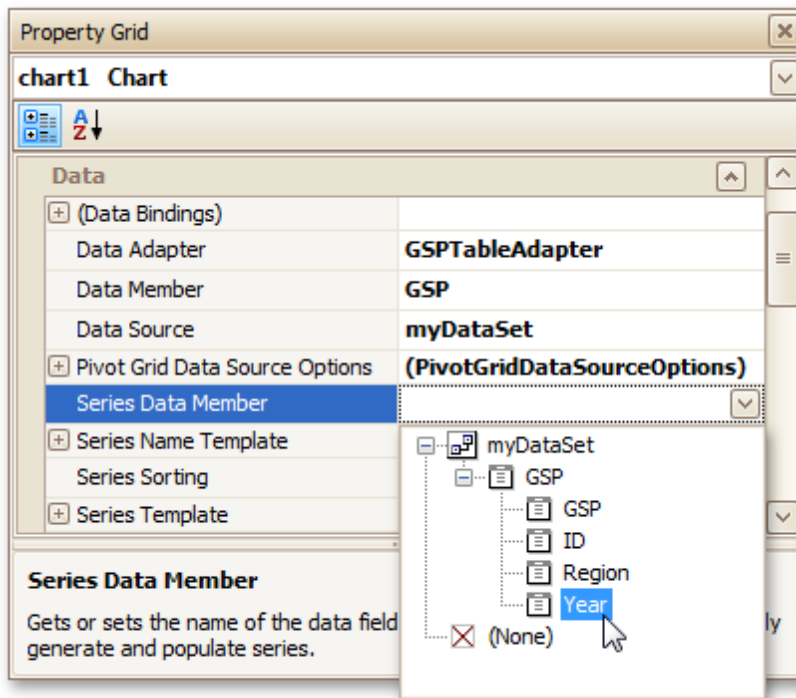
5. Then, adjust the series template which is accessed via the chart's **Series Template** property. First, set the **Argument Data Member** (which specifies from where the data for points' *arguments* is obtained).
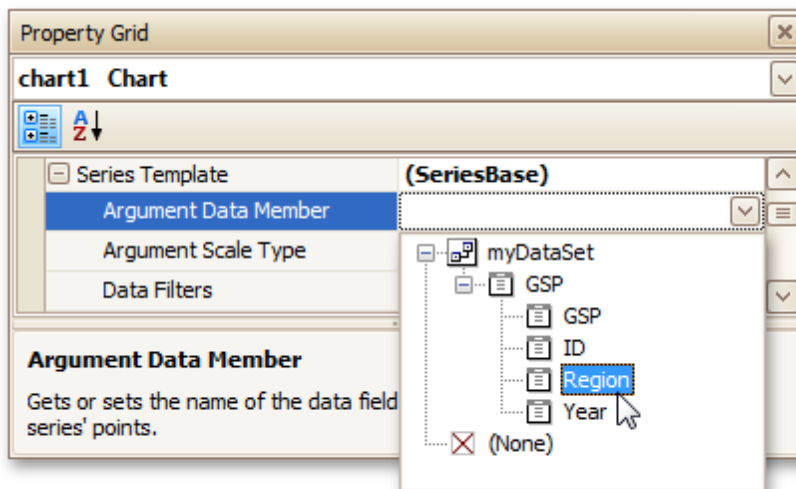
Make sure that the **Argument Scale Type** property is set to an appropriate value. Otherwise (e.g. when your data is of the *date-time* type, but this property is set to **Qualitative**), the resulting Chart will be seriously affected, and incorrectly represent its underlying data.

6. And, specify the **Value Data Members** property, indicating the data field(s) from which the points' *values* are obtained.
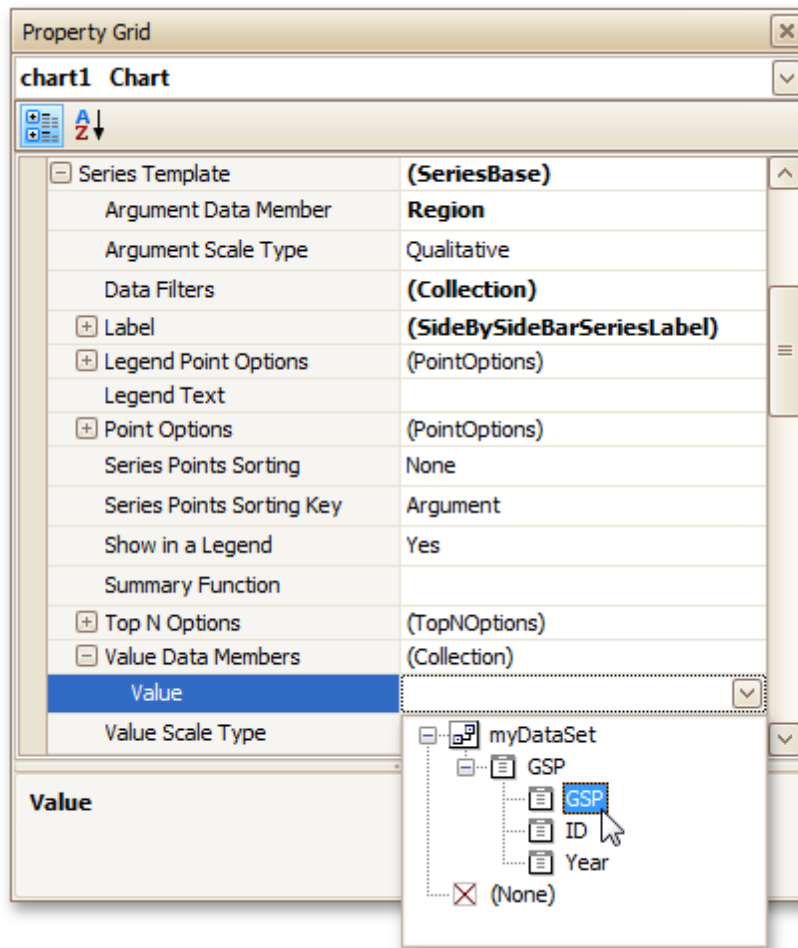
As with the argument, make sure to appropriately specify the **Value Scale Type**.

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

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

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

The chart is now ready. Switch to the Preview Tab, and view the result.
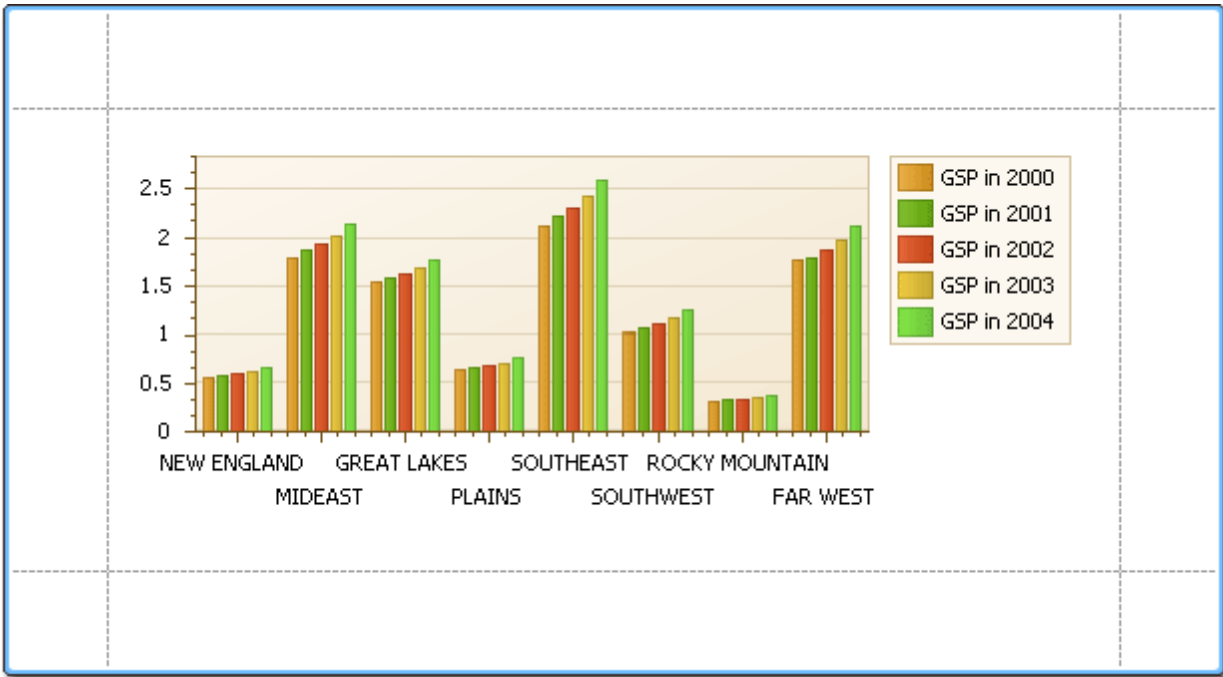
See Also
Chart with Static Series

Styles and Conditional Formatting

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

This section consists of the following topics.

- Understand Styles 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

Understand Styles Concepts

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

This document consists of the following sections.

- The Appearance Properties
- Styles Priority and Inheritance

The Appearance Properties

In the Report Designer, a 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.
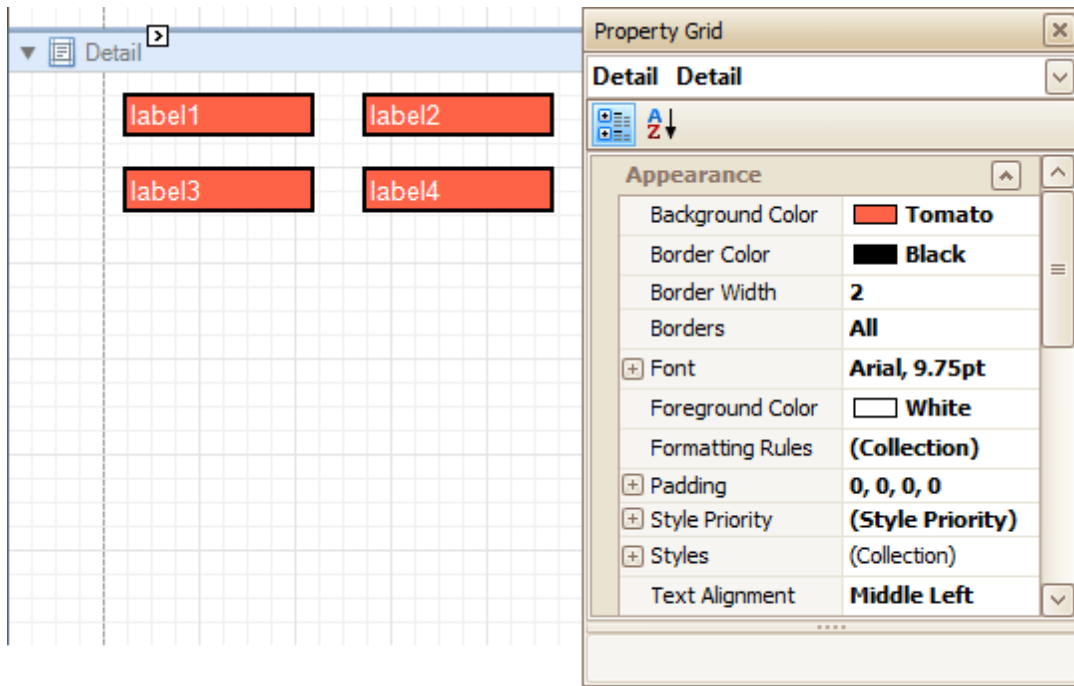
In turn, a control's appearance can be adjusted independently from its parent.
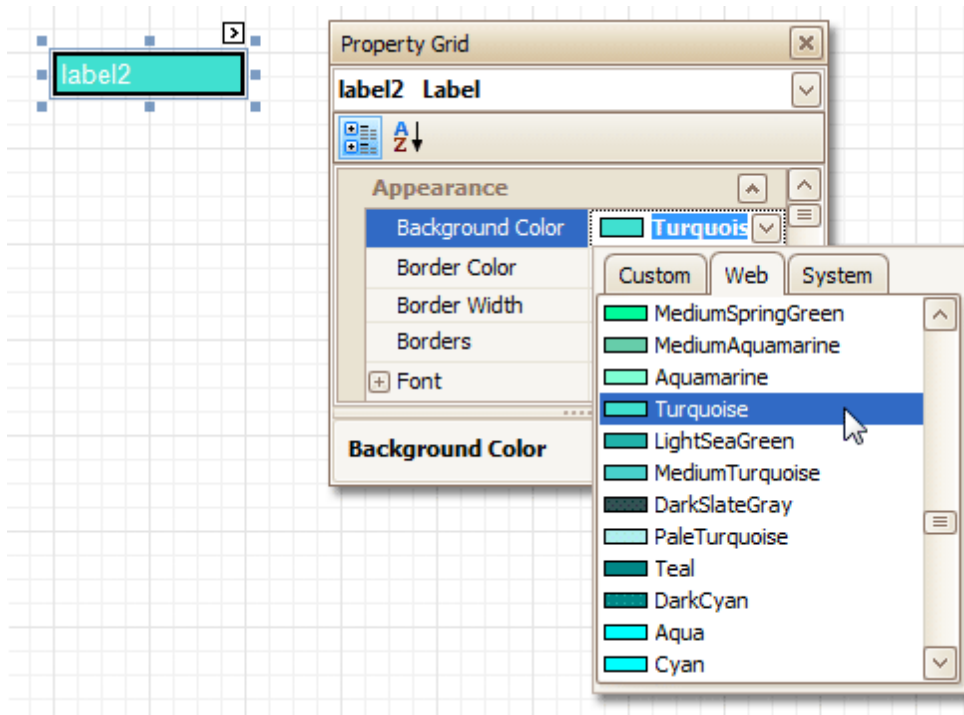
When it is required to reset a value assigned to a control's appearance property, you can right-click this property in the Property Grid, and in the invoked menu, click **Reset**. So, the control will be restored to the appearance of its parent.
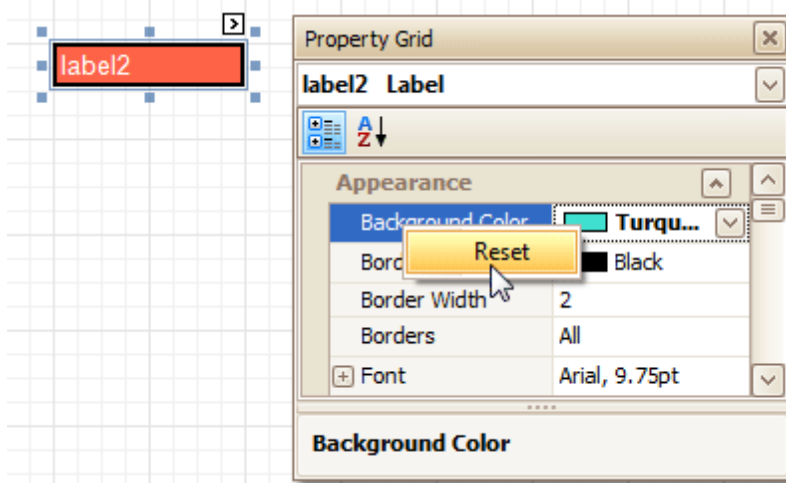
Styles Priority and Inheritance

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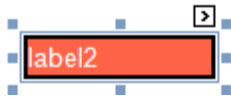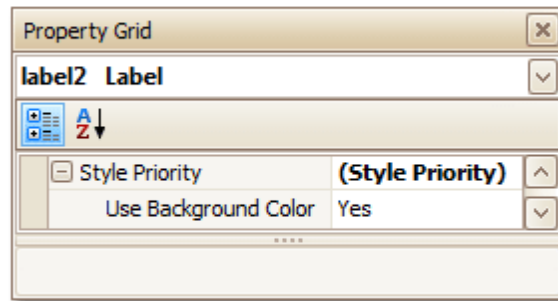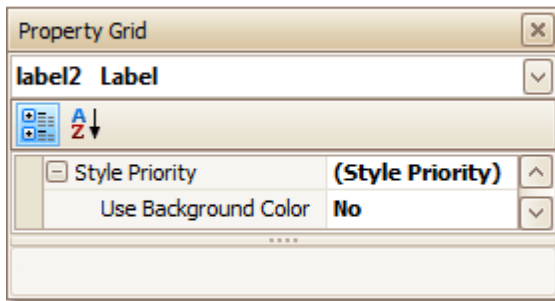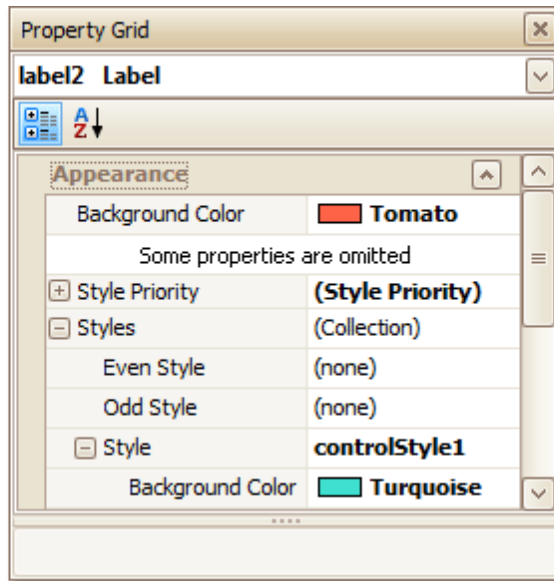
The same principles are applied to the *odd-even styles* feature, which allows you to alternate the appearance of consecutive data rows in your report. For details on this, refer to Use Odd and Even Styles.

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

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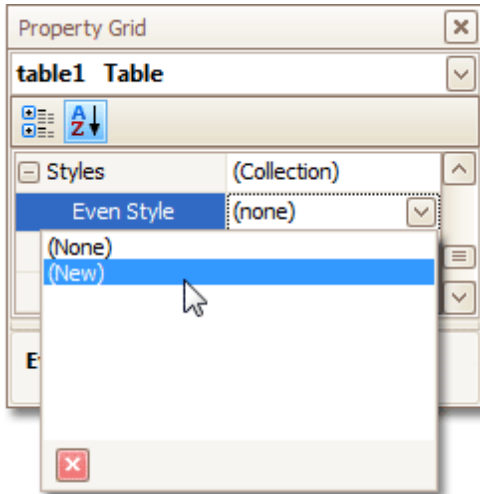
This will create a style and assign it to the control's **Even Style**.

3. Now, expand the **Even Style** property, and adjust the required options, e.g. set the **Background Color** to **ControlLight**.
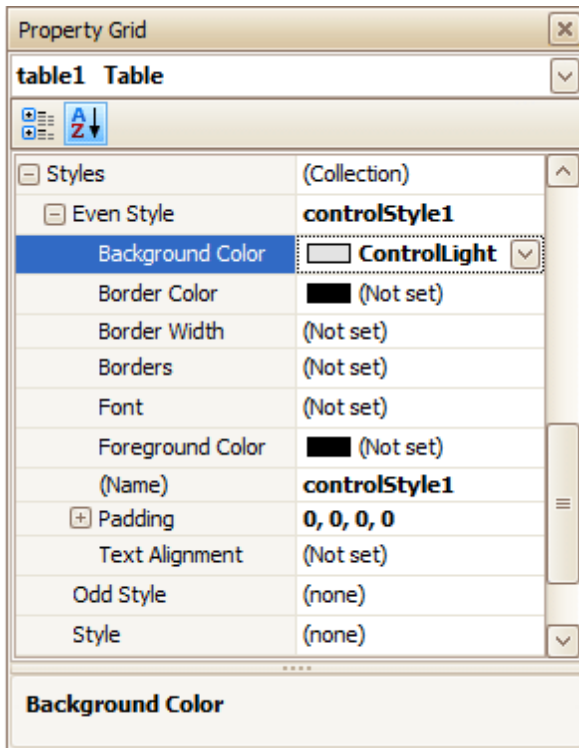
If required, perform the same steps, to create and assign an odd style, as well.

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
Understand Styles Concepts
Store and Restore Style Sheets
Conditionally Change a Control's Appearance

Store and Restore Style Sheets

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

You can store a report's style sheet (containing all the report's styles) in an external REPSS file. This makes it possible to easily restore a report's appearance from this file. For general information, refer to Understand Styles 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.
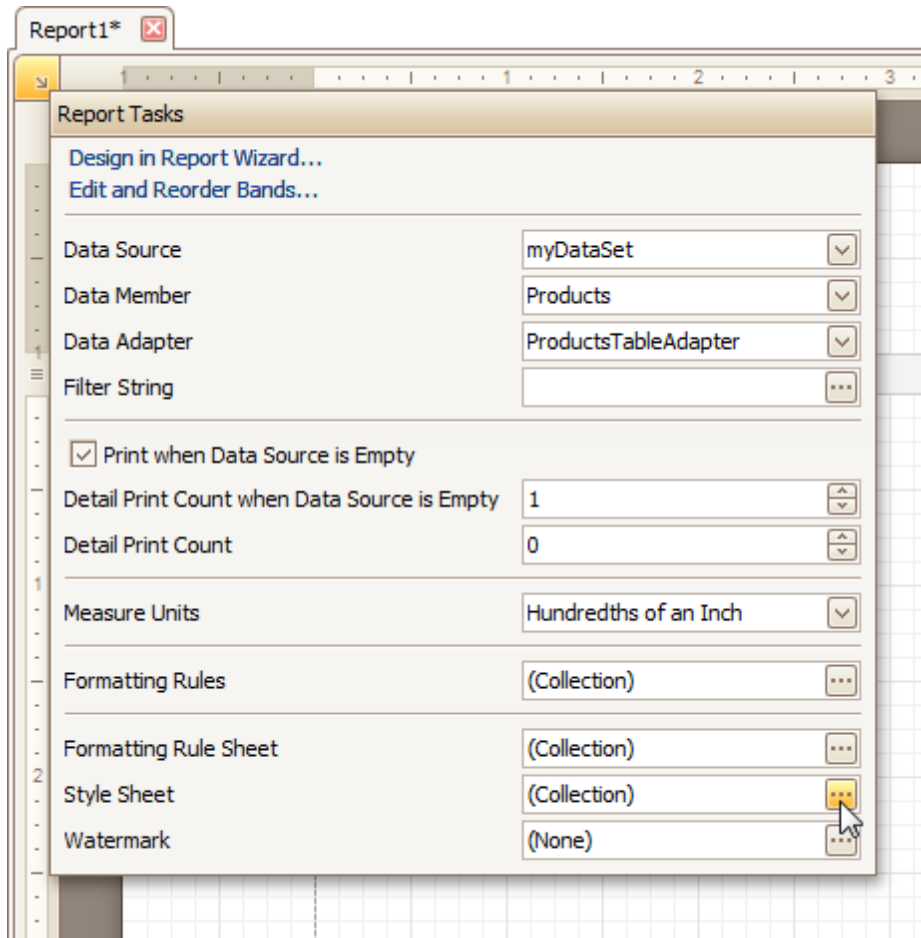
3. In the invoked **Styles Editor**, use the ➕ button, to create new styles. For them, specify the desired options (e.g. **Background Color**), and click the **Save** button.
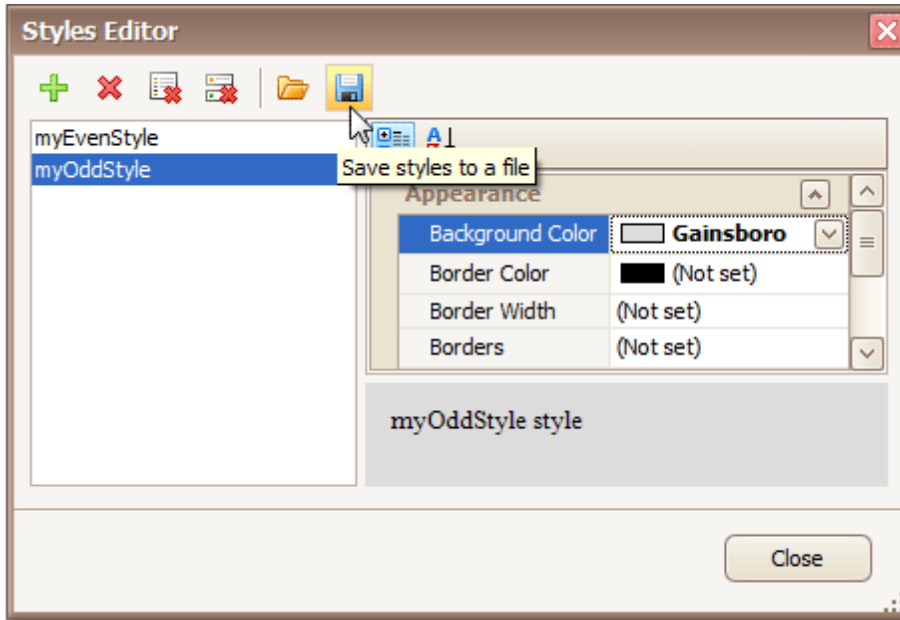
Then, in the invoked **Save File** dialog, define a name for the style sheet file (.REPSS), and click **Save**.

4. Then delete the created styles, using the ✖ 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.
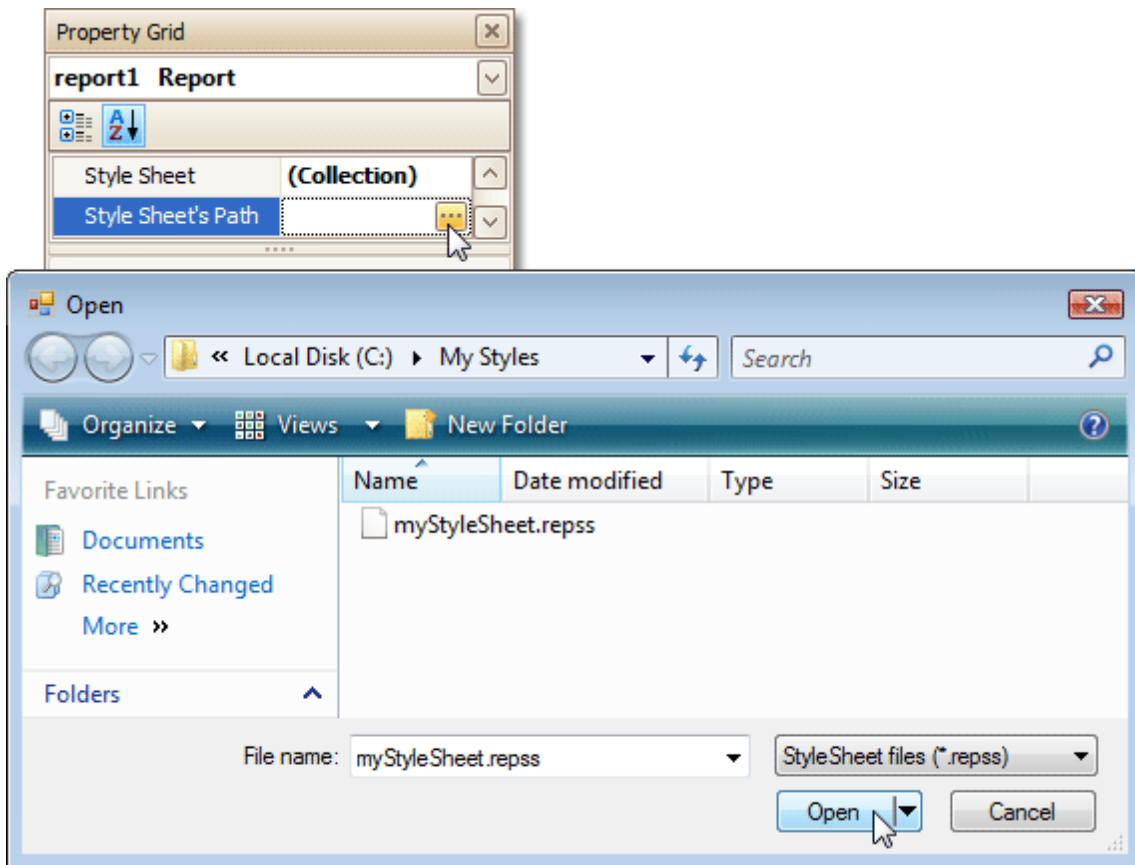
When you invoke the **Styles Editor** (via the report's **Style Sheet** property) again, you'll see that the styles are read-only, meaning that they are obtained from an external file.
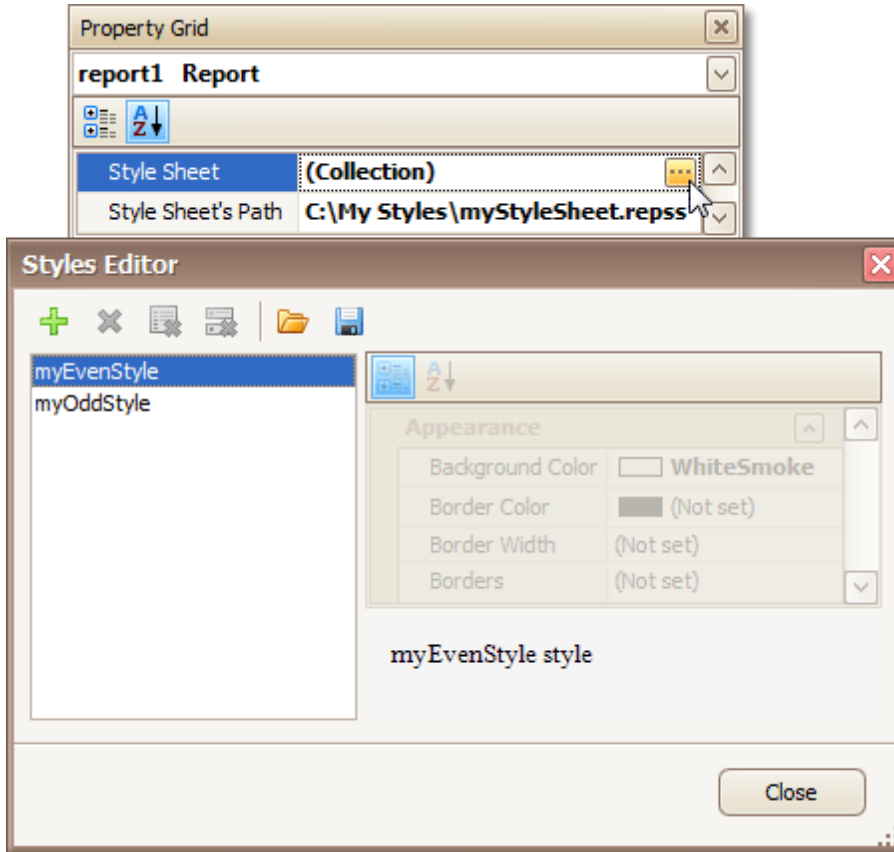
If the **Style Sheet Path** property is then set to **None**, and a style sheet is loaded using the **Styles Editor** of the **Style Sheet** property, all these styles will become editable.

To learn how you can assign styles to report elements, refer to Use Odd and Even Styles.

Note

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

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

Conditionally Change a Control's Appearance

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

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

1. Create a data-aware report.
2. Click the report's Smart Tag, and in the invoked actions list, click the ellipsis button for the **Formatting Rule Sheet** option.
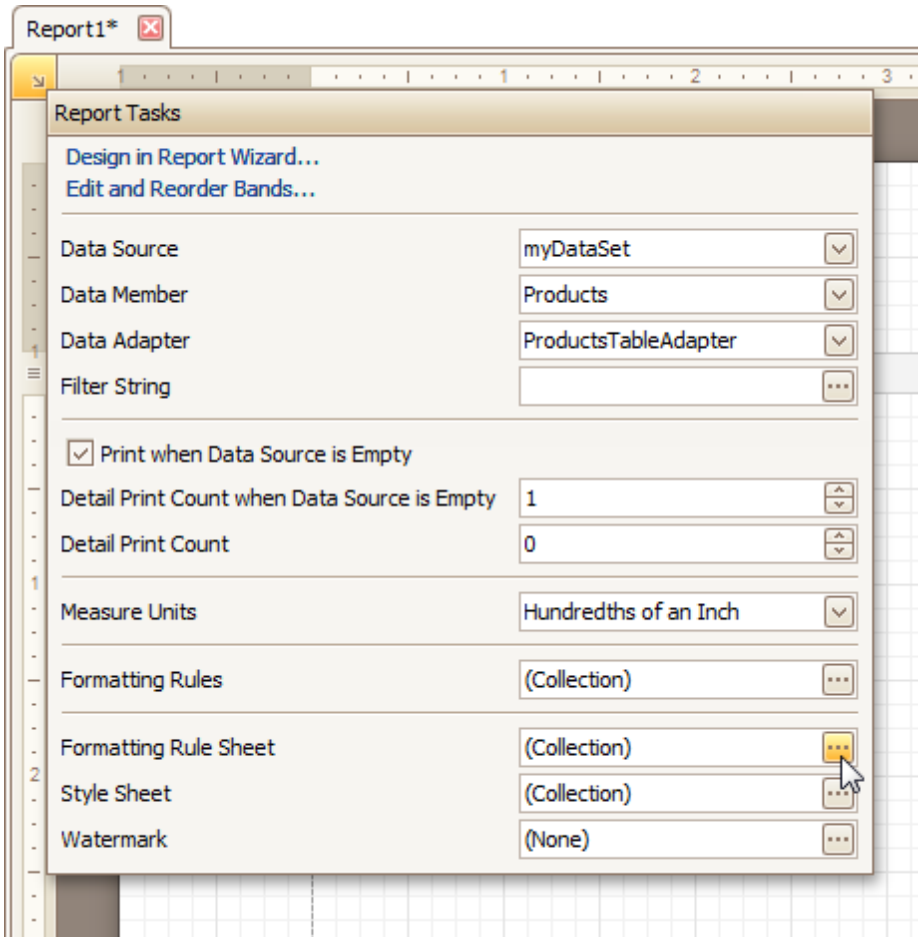
And, in the invoked **Formatting Rule Sheet Editor**, create a new *formatting rule* (by using the ➕ button), and click the ellipsis button for its **Condition** property.
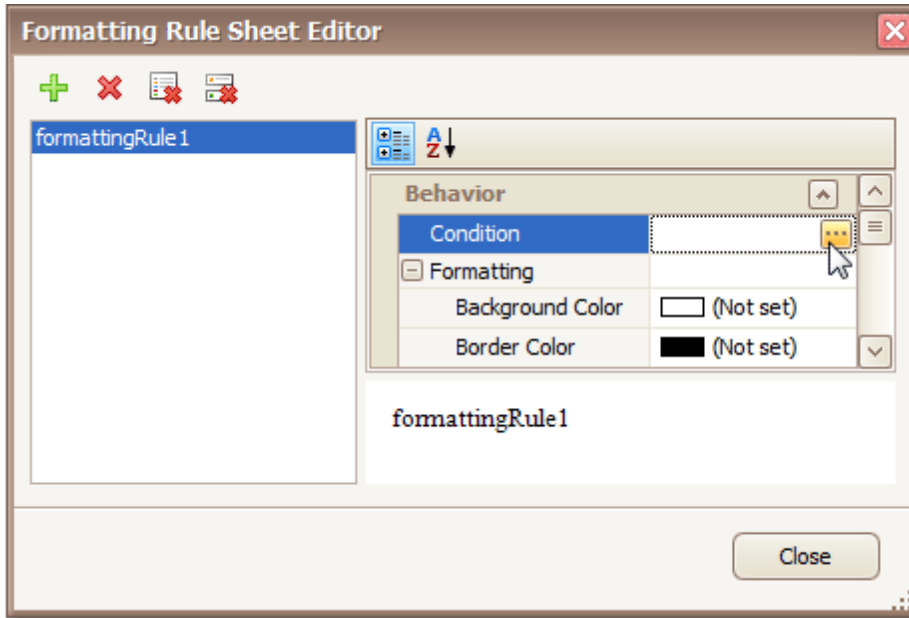
3. Then, in the invoked **Condition Editor**, define the required *Boolean* condition (which means that its result is returned as either *true* or *false*). In this tutorial, we will format fields if the **UnitPrice** value is greater than **30**.
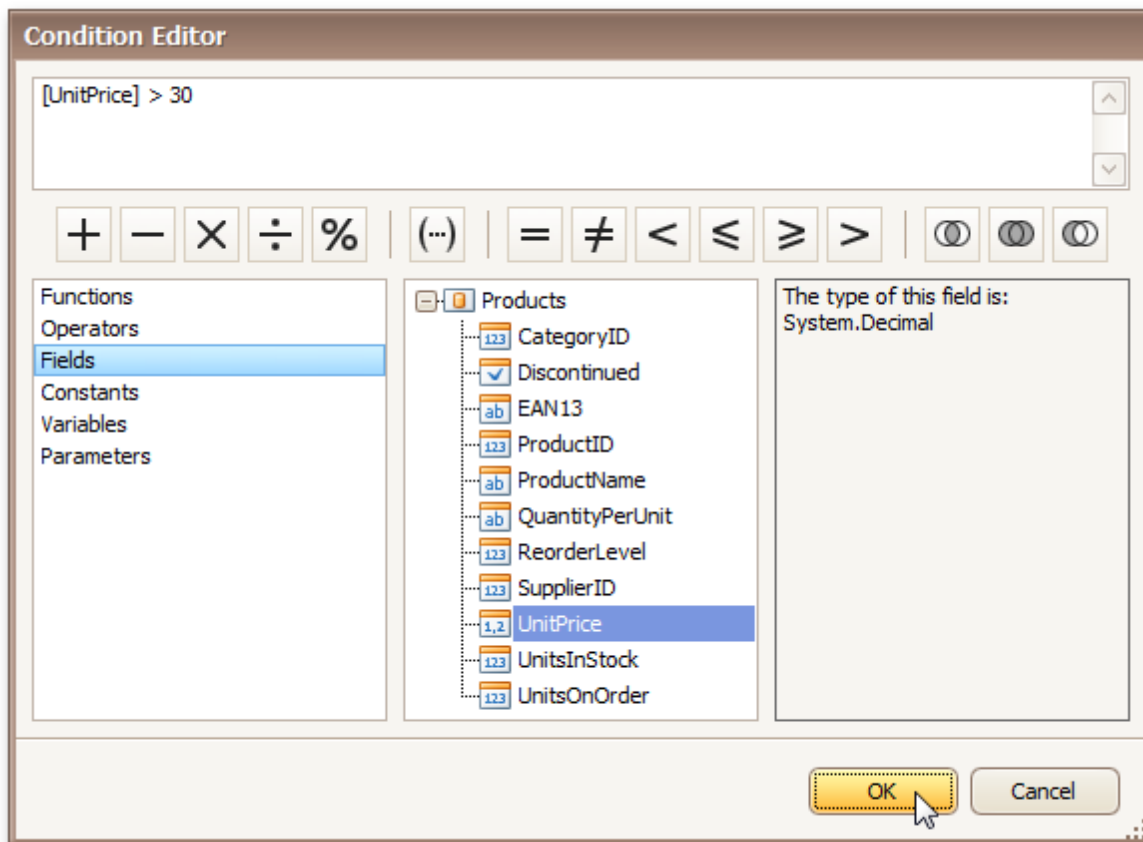
To save the condition and close the dialog, click **OK**.

4. Now, back in the **Formatting Rule Sheet Editor**, define the formatting to be applied (e.g. specify the desired font color).
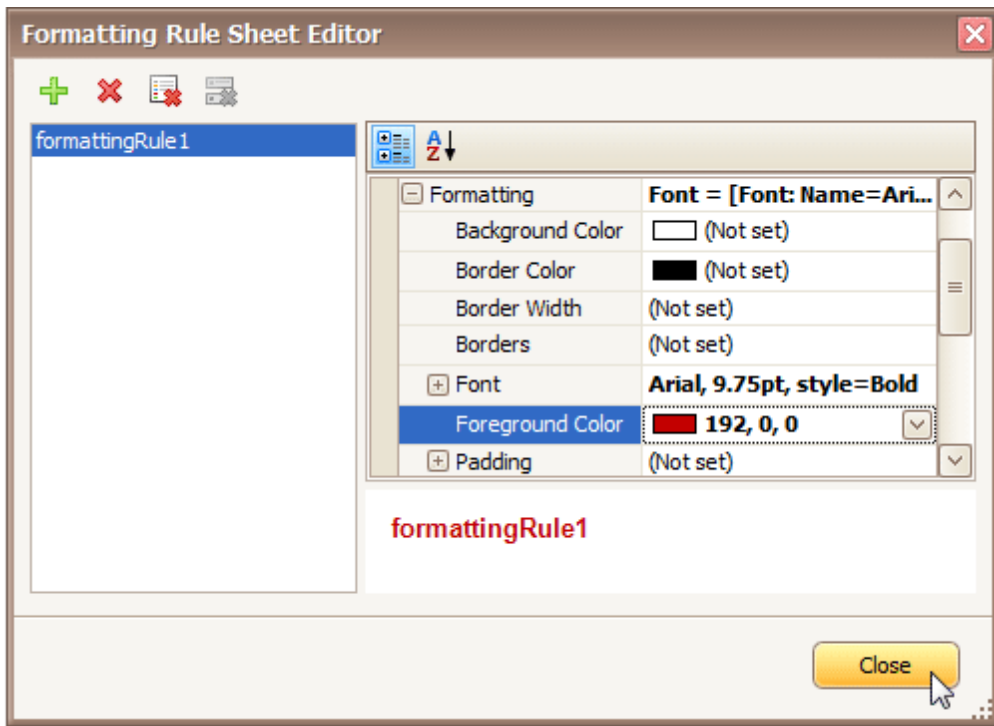
To save the changes and quit the dialog, click **Close**.

5. Finally, select the band or control to which the formatting rule must be applied (in this example it is the Detail band), and via its Smart Tag, access its collection of **Formatting Rules**.
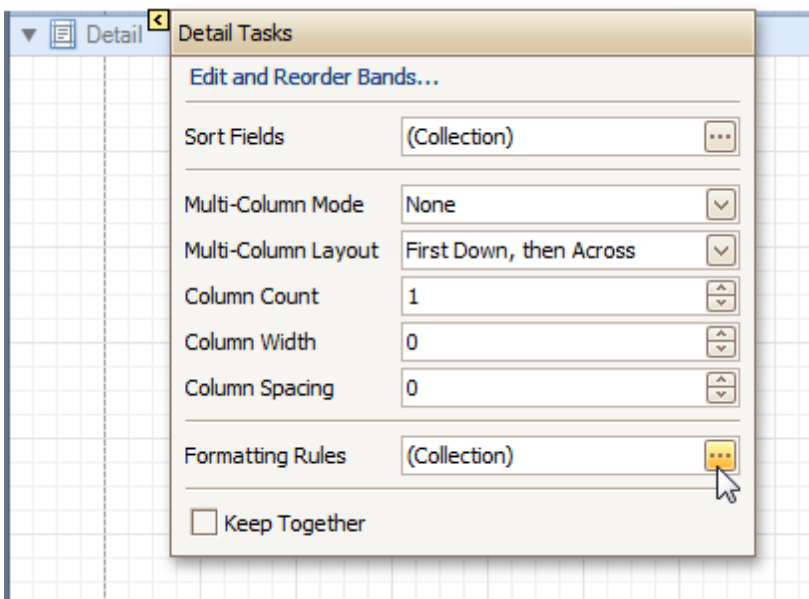
And, in the invoked **Formatting Rules Editor**, move the rule from left to right (using the **>** button), for it to come into effect for this band.
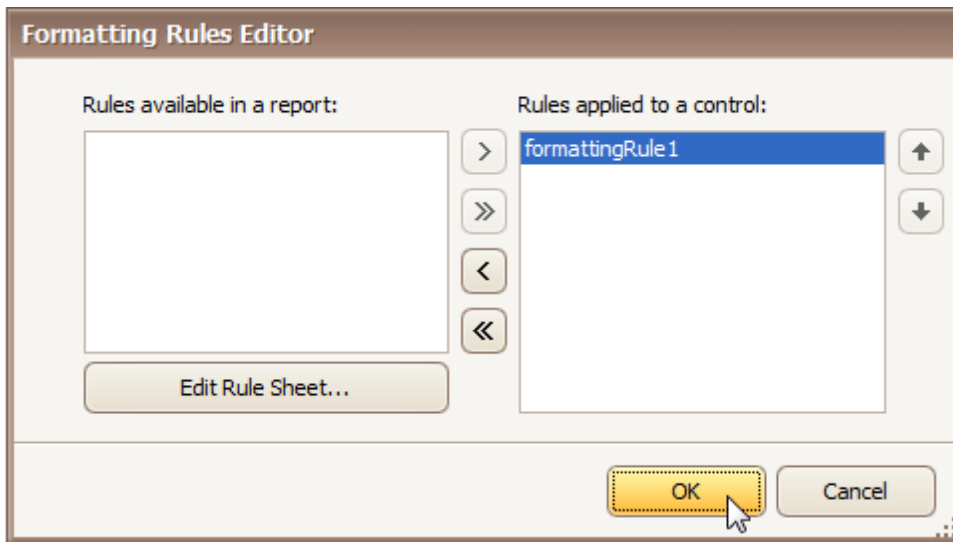
If multiple rules are applied, it is possible to customize their precedence, by using the up and down arrow buttons at the right of the dialog. So, the rules are applied in the same order that they appear in the list, and the last rule in the list has the highest priority.

The result is shown in the following image.

See Also

Conditionally Hide Bands

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

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

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

1. Select the Group Header, and click its Smart Tag. Then, in the invoked actions list, click the ellipsis button for the **Formatting Rules** option.
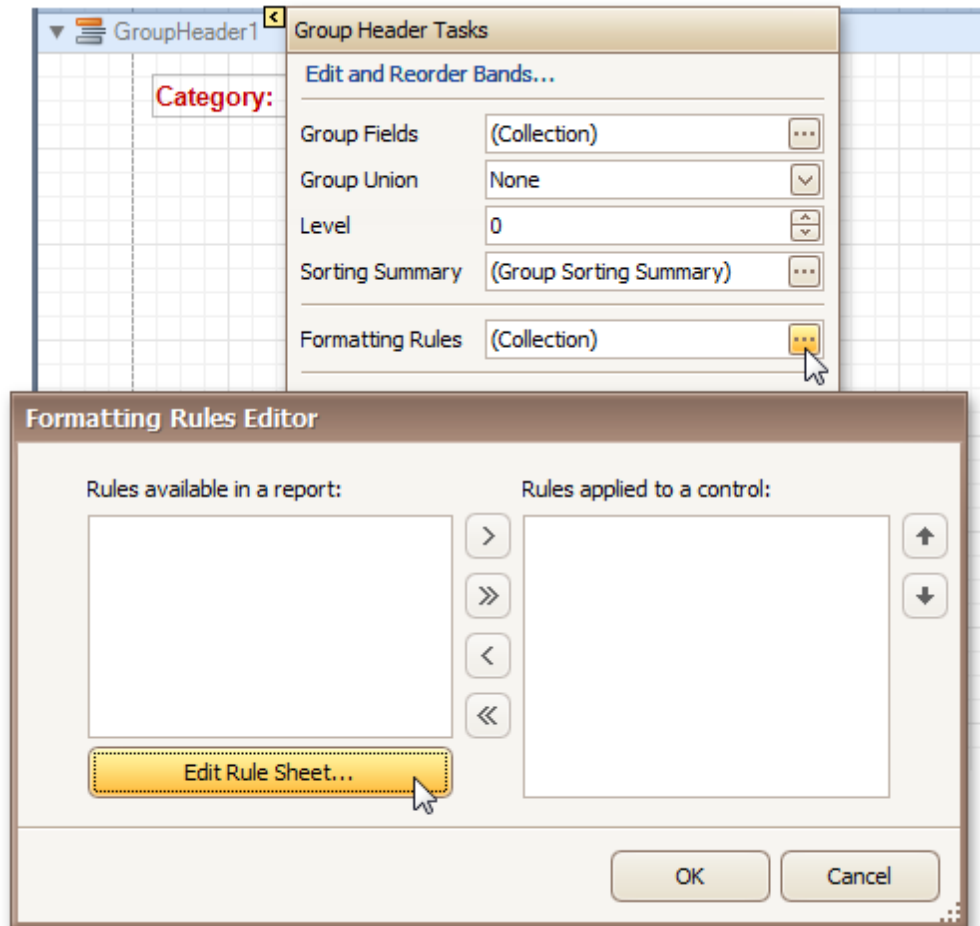
In the invoked **Formatting Rules Editor**, click the **Edit Rule Sheet...** button.

2. Now, in the invoked **Formatting Rule Sheet Editor**, click the ✚ button, to create a new rule. Then, set its **Visible** property to **No**, and click the ellipsis button for the **Condition** property.
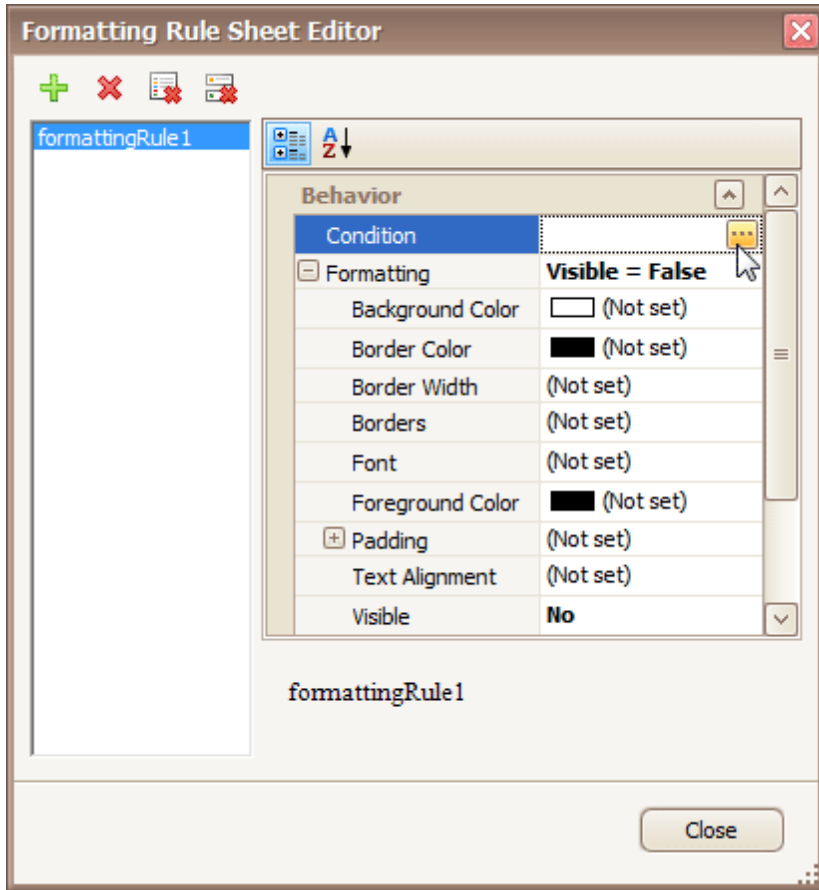
3. Construct the required logical expression (e.g. **[CategoryID] < 2**), and click **OK**.
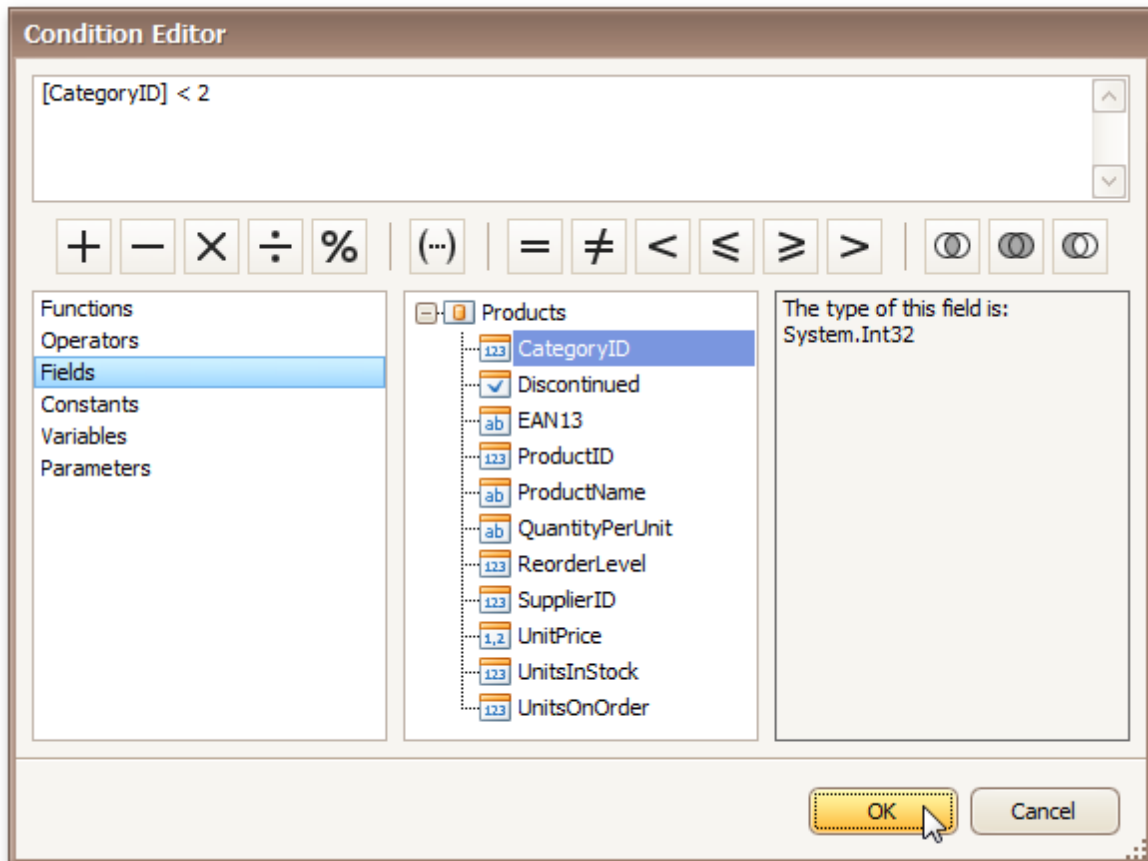
To quit the **Formatting Rule Sheet Editor**, click **Close**.

4. Back in the **Formatting Rules Editor**, move the created rule to the dialog's right section (**Applied Rules**), to make it active.
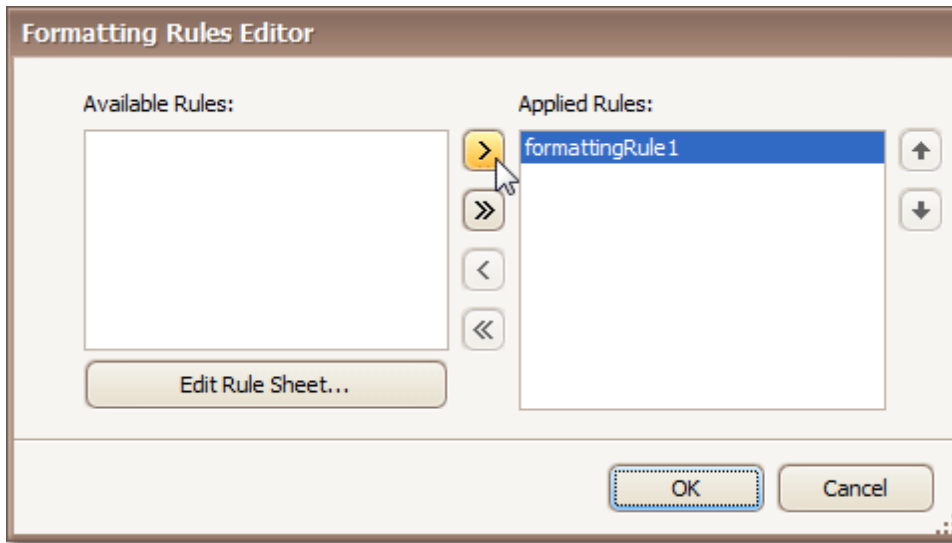
And, do the same for the report's [Detail band]. That is, click the ellipsis button for its **Formatting Rules** property, and in the invoked dialog, apply the same rule to this band, as well.

Switch to the [Preview Tab], and view the result. In our example, you can see that the first category isn't shown. So, the conditional formatting was applied properly.
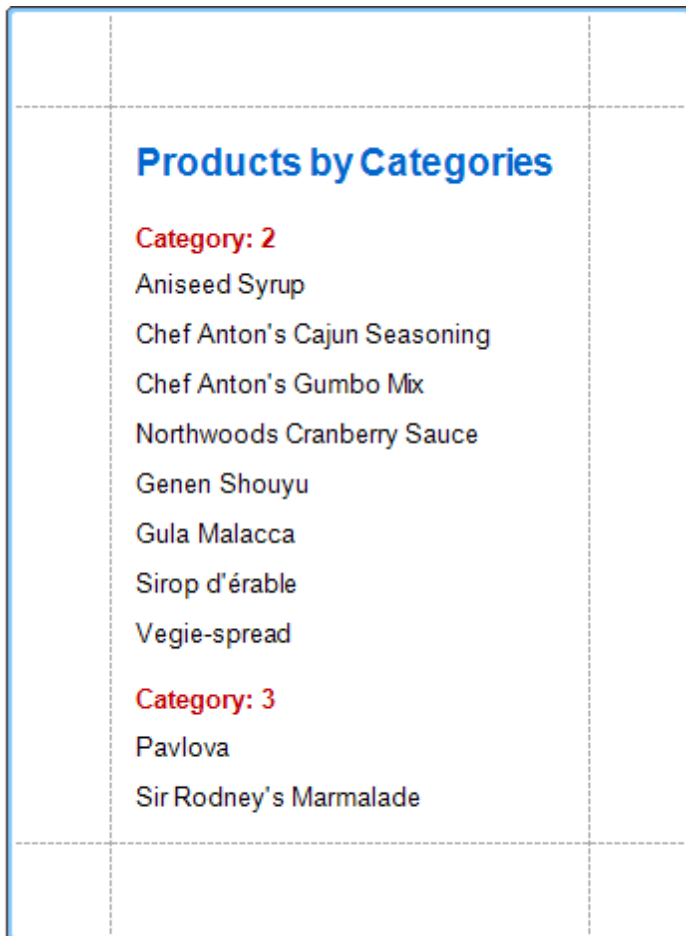
See Also

Conditionally Change a Label's Text

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

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

1. Create a new report and bind it to a data source.
2. To create a calculated field, in the Field List, right-click any item inside the created dataset, and on the invoked menu, choose **Add Calculated Field**.
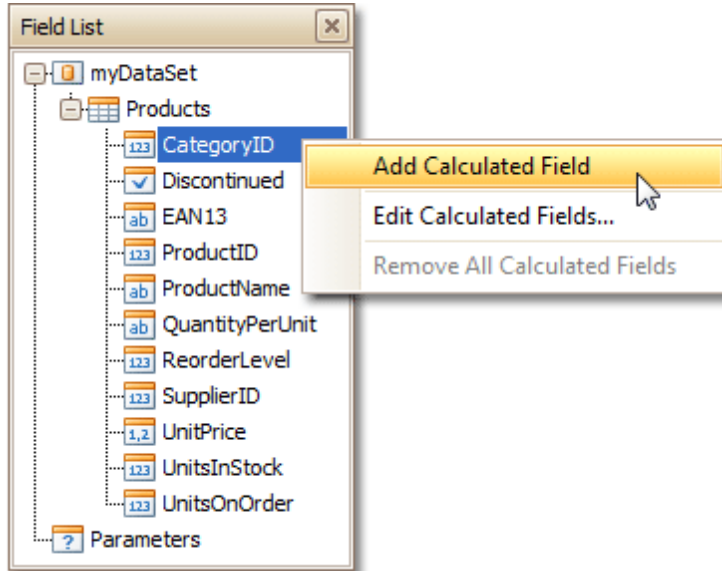
3. Select the calculated field, and in the Property Grid, set its **Field Type** to **String**. Then, click the ellipsis button for its **Expression** property.

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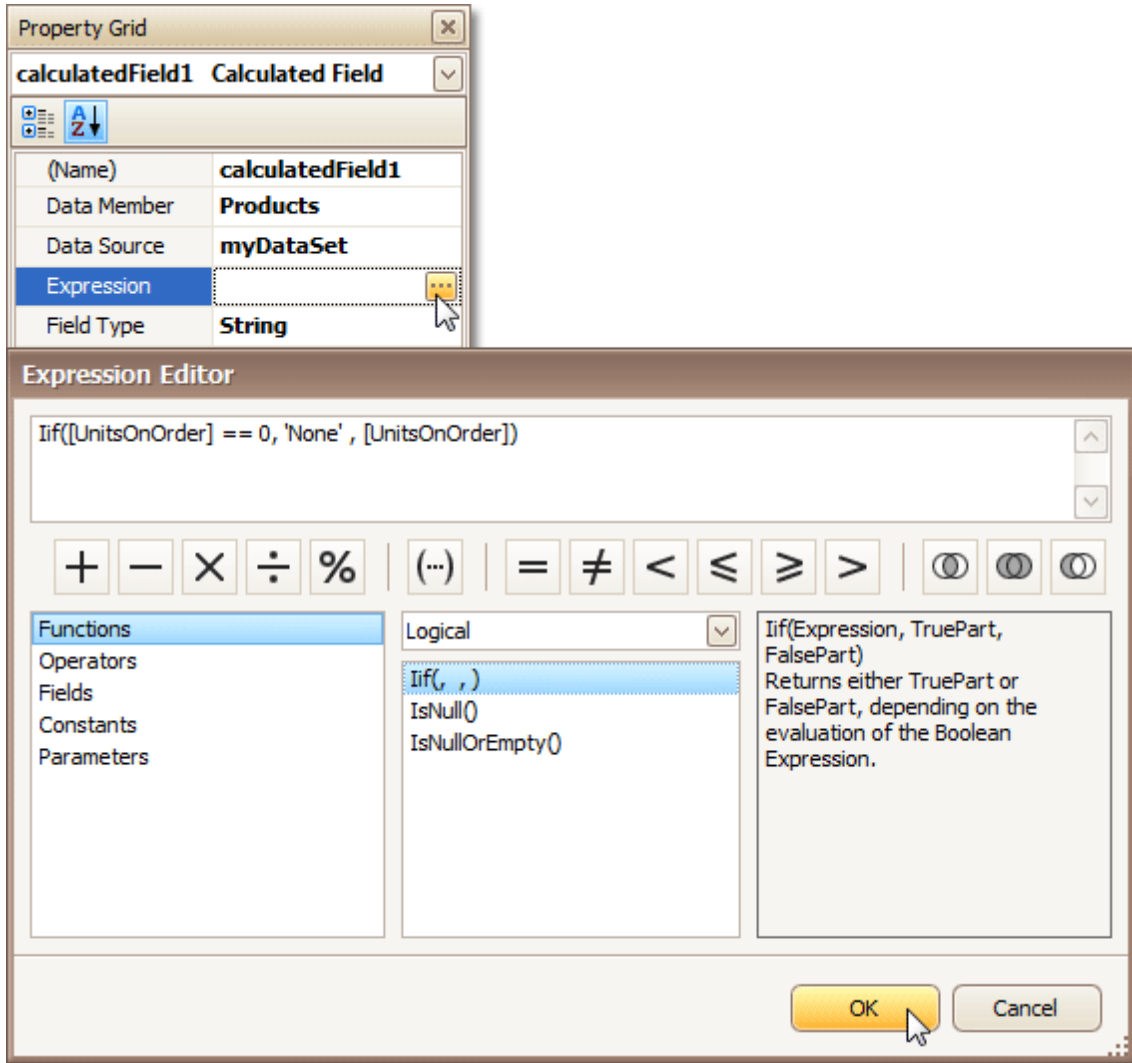
To save the changes and close the dialog, click **OK**.

4. Finally, drop the required data fields (and the created calculated field as well) from the Field List onto the report's Detail band.
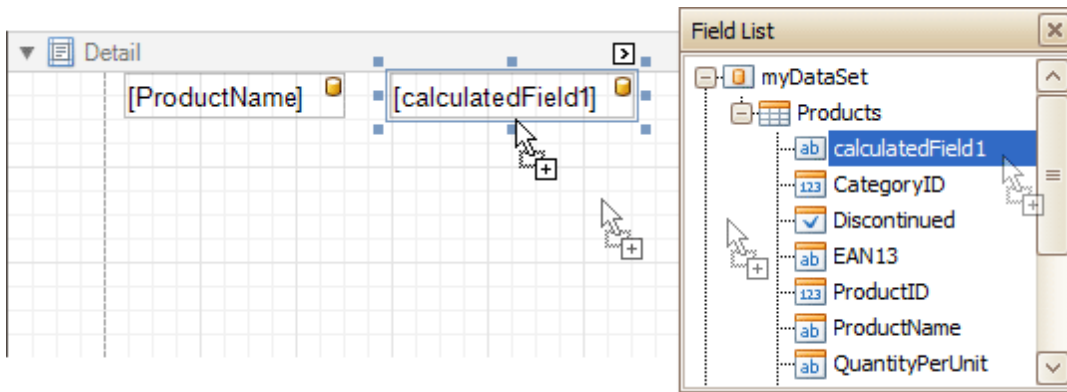
The report is now ready. Switch to the Preview Tab, and view the result.

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

See Also
    Conditionally Change a Control's Appearance
    Conditionally Hide Bands

Navigation

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

This section consists of the following tutorials.

- Add Bookmarks
- Create Hyperlinks
- Add a Cross-Reference

Add Bookmarks

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

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

To create a report with bookmarks, do the following.

1. Click the Label in the Report Header band, to select it, and in the Property Grid, set its **Bookmark** property to the same value as its text (i.e. **Products by Categories**).
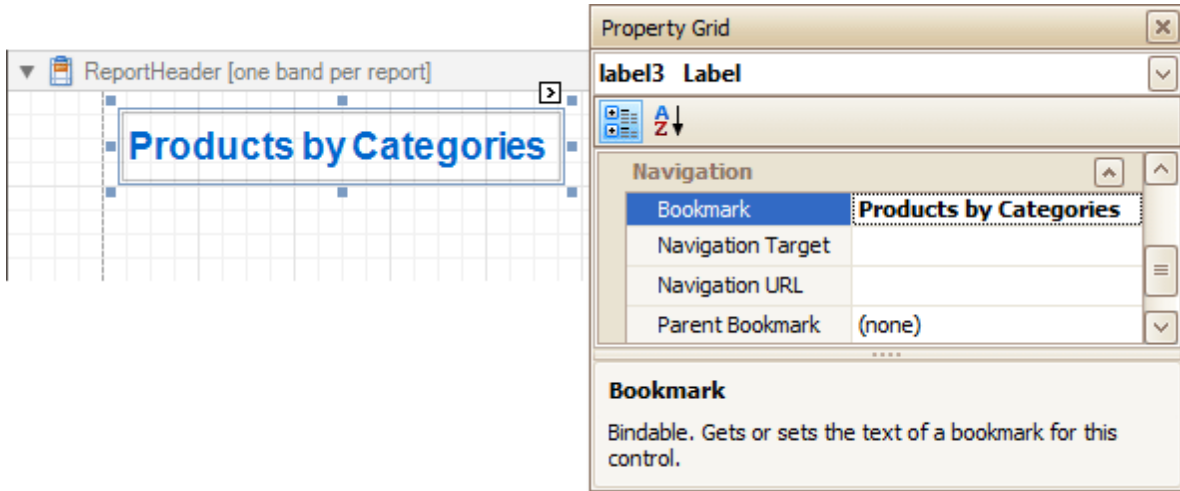
2. Now, select the Label in the report's Group Header band. As this control is bound to data, we will bind its **Bookmark** property to the same data field, using the **(Data Bindings)** property.
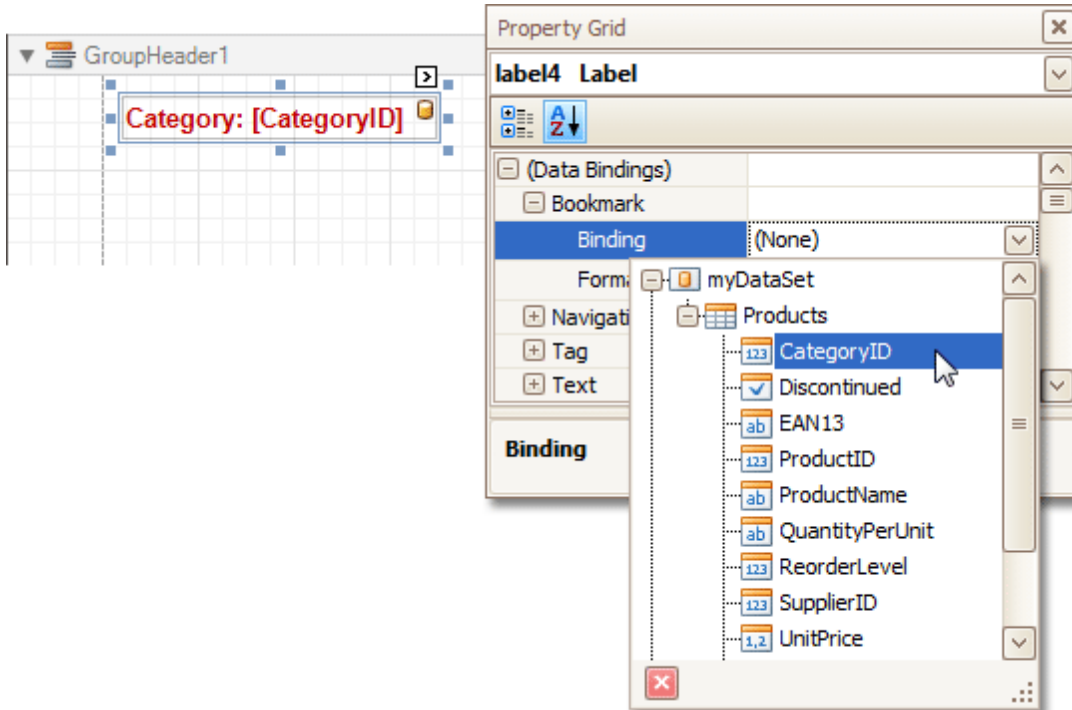
Note that as with other bindable properties, you also can apply value formatting to the **Bookmark** property (e.g. **Category {0}**).

3. Then, for this Label, specify its **Bookmark**, and set the **Parent Bookmark** property to the Report Header's label, to define the document map's hierarchy.
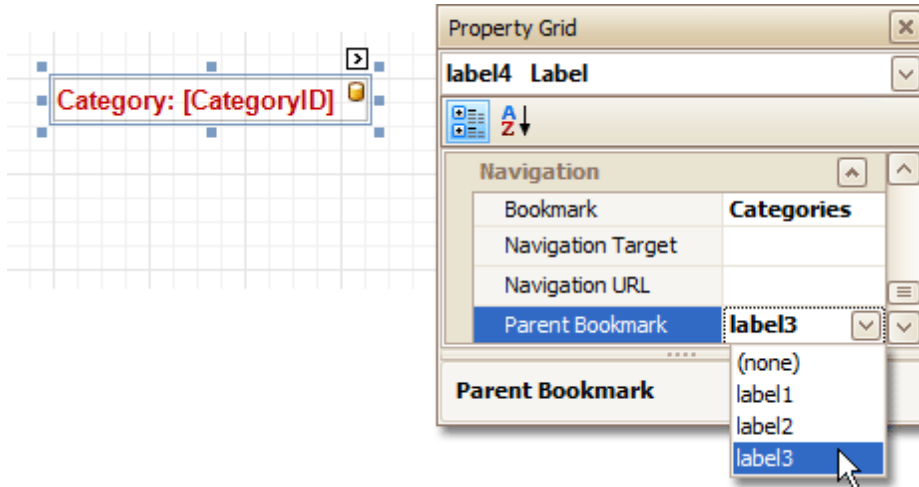
The report with bookmarks is now ready. Switch to the Preview Tab, and view the result.
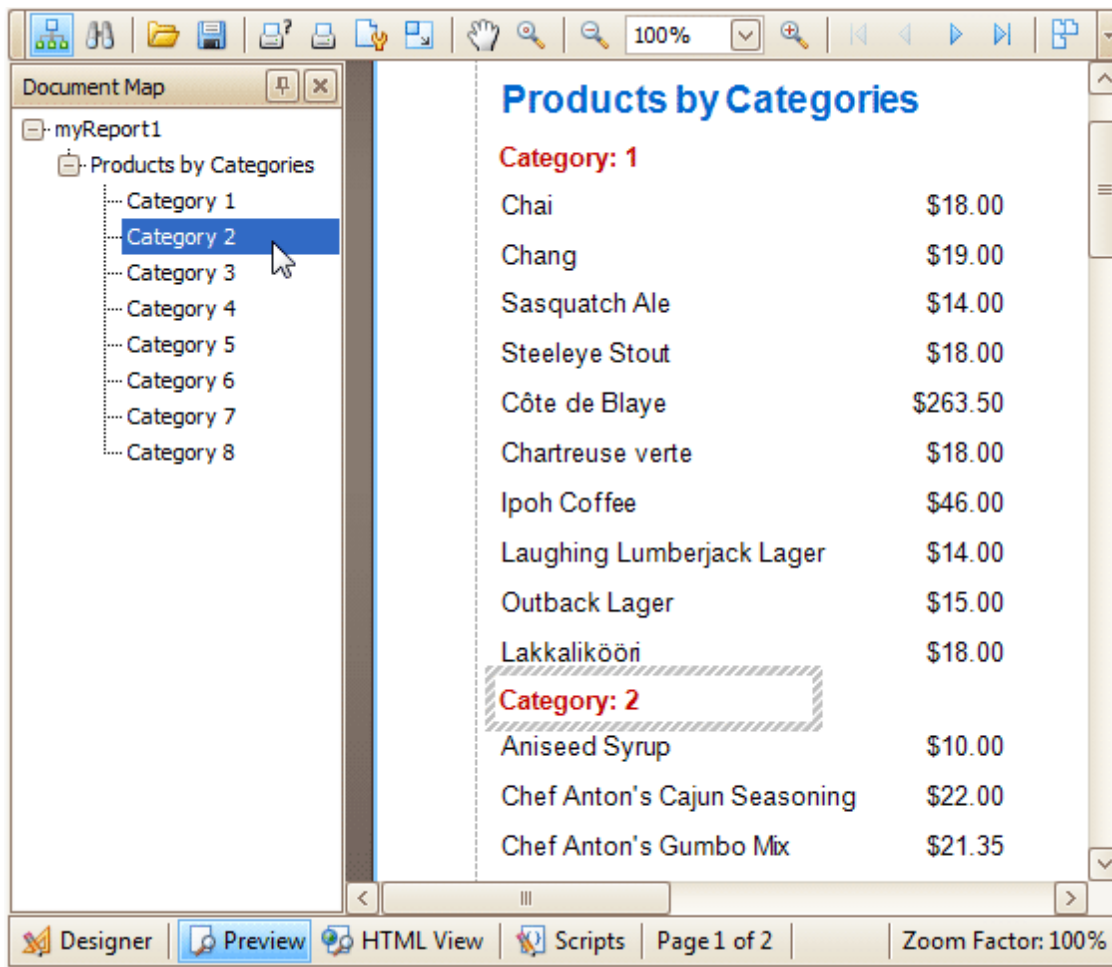
See Also
Create Hyperlinks
Add a Cross-Reference

Create Hyperlinks

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

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

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

1. Create a new report.
2. Drop a Label onto the report, and in the Property Grid, change its **Text** to the one required for the link.
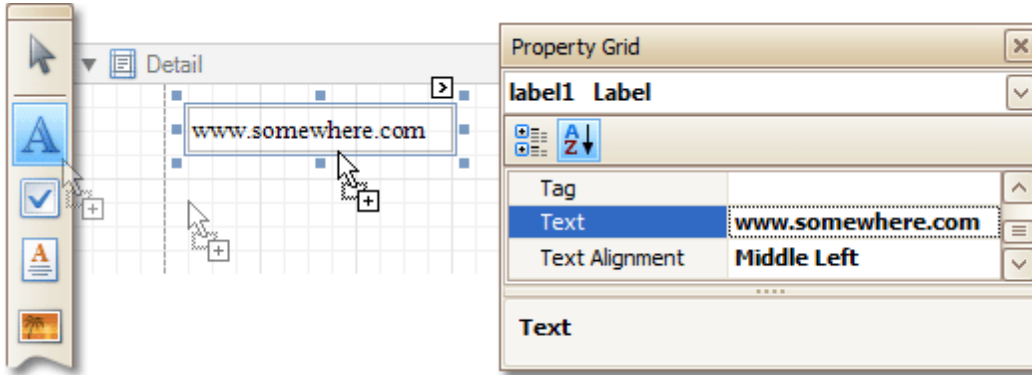
In addition, to make the Label look like a typical link, you can change its appearance appropriately (e.g. make it blue and underlined).

3. Now, set its **Navigation Target** to the required value (_*blank*, _*parent*, _*search*, _*self*, or _*top*), and define the required **Navigation URL**.
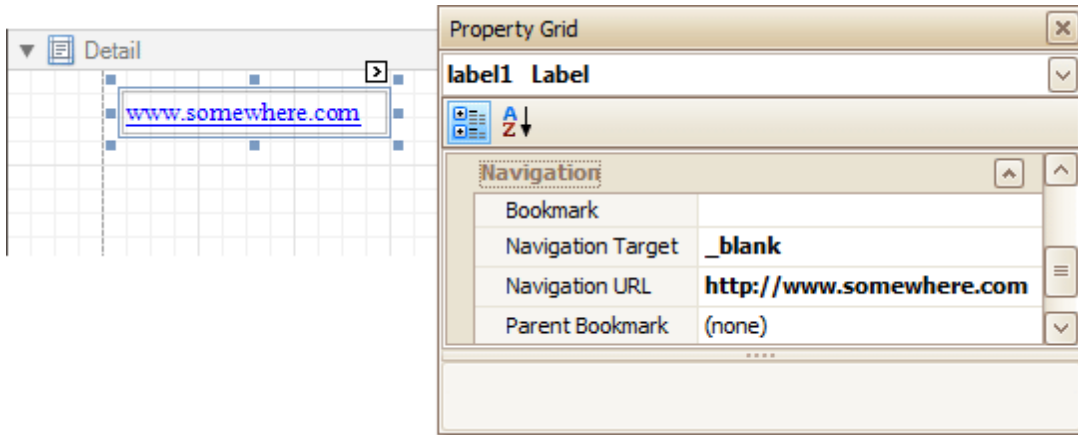
The hyperlink is now ready. Switch to the Preview Tab (or, HTML View Tab), and view the result.

www.somewhere.com

See Also
Add Bookmarks
Add a Cross-Reference

Add a Cross-Reference

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

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

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

1. Drop a label onto the created **ReportHeader** band, which will serve as the report's headline. Click the label, to type the desired contents into it. Then, in the Property Grid, set its **Name** property to **reportTop**.
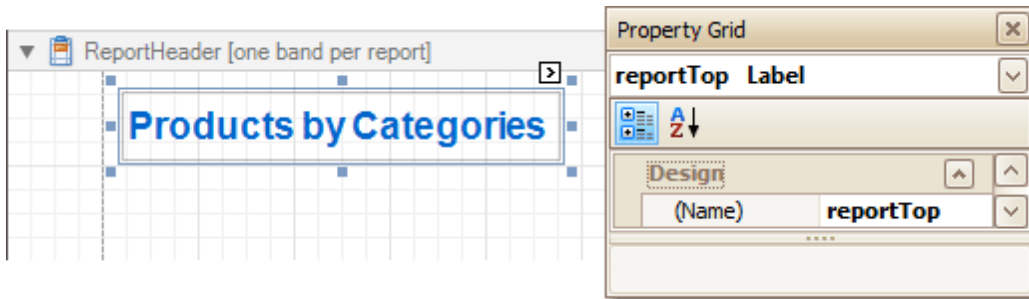
2. To accompany the existing Group Header with the corresponding Footer, in the Group and Sort Panel, check the **Show Footer** option.

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

   Set its **Navigation Target** property to **_self**. Then, if you click the drop-down list of the **Navigation URL** property, you can see the controls available in your report. Choose the one named **reportTop**.
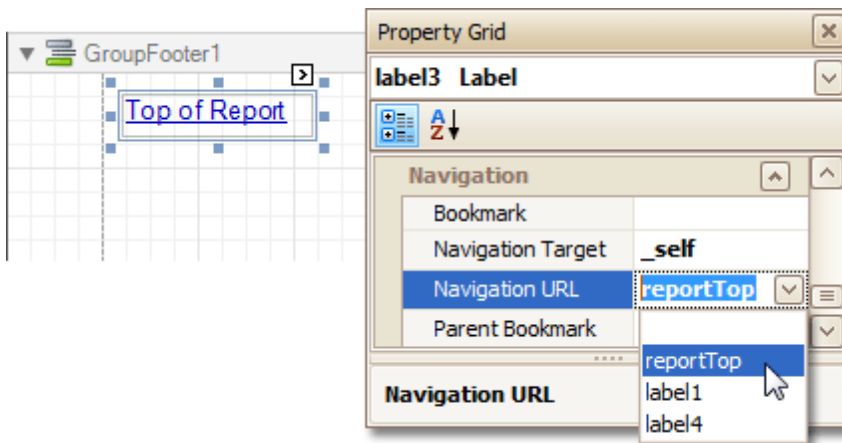
The report with cross-references is now ready. Switch to the Preview Tab (or, HTML View Tab), and view the result.
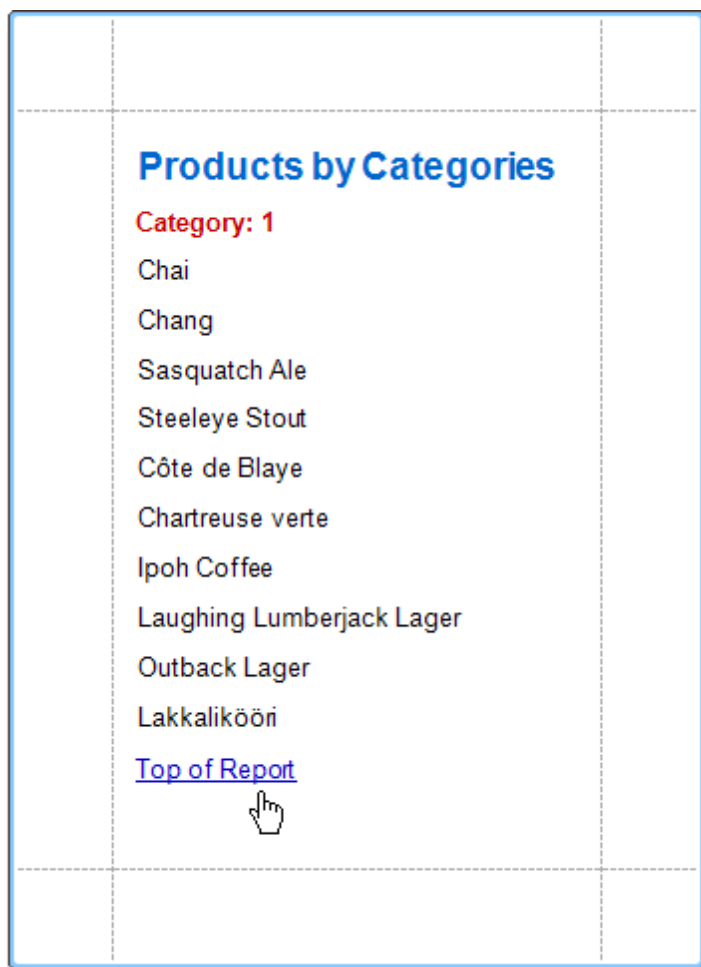
See Also
Add Bookmarks
Create Hyperlinks

Miscellaneous

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

This section consists of the following topics.

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

Handle Events via Scripts

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

This documents consists of the following sections.

- Scripting Overview
- Scripting Specifics
- Example: Custom Summary

Scripting Overview

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

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

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

Every report element has an set of script events, which are individual for each element's type. For example, the events of the Detail band are shown in the following image.
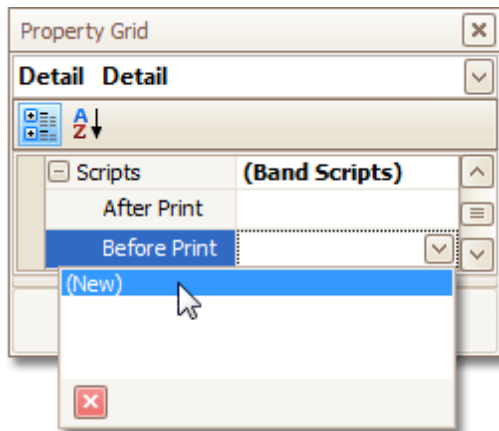
After you click (New) for an event (e.g. the **Before Print**, which is the most used), the Scripts Tab is switched on, where you can manage and edit all the report's scripts.
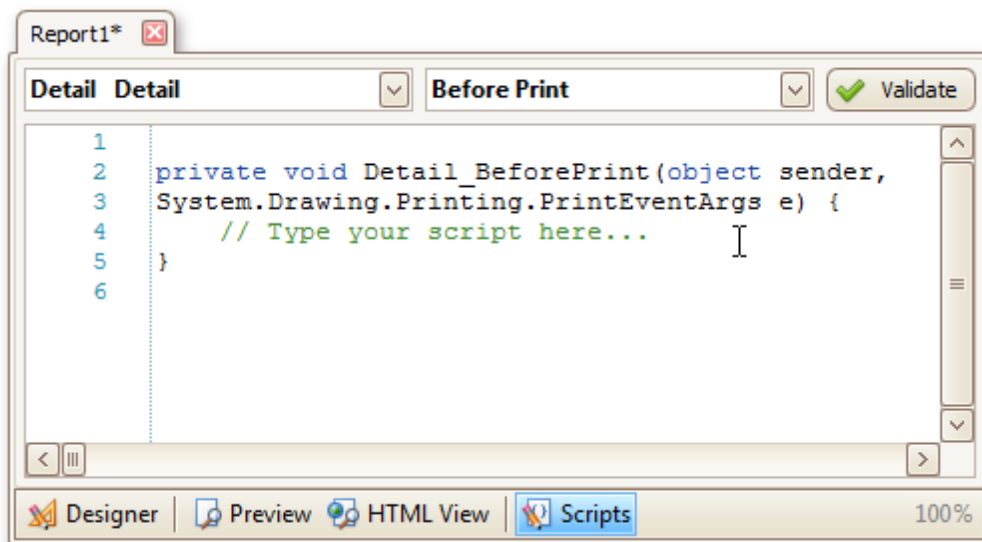
In this tab, for a selected event, a script template is auto-added, in the language specified via the **Script Language** property of the report.

You can verify that your report's scripts are valid, by clicking **Validate**. The validation result is then displayed in the Scripts Errors Panel.
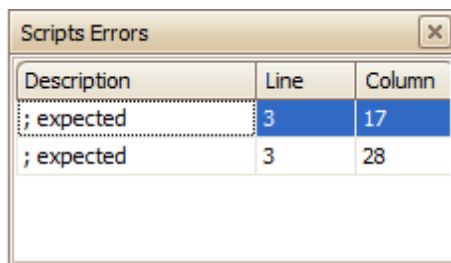
Note that scripts are saved to a file along with the report's layout (for details on this, refer to Back Up the Current Layout Before Modifying It).

Scripting Specifics

1.Scripting language

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

2.Scripting scope

Script execution is performed in the following way:

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

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

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

3.Reference External Assemblies

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

Note

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

Example: Custom Summary

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

To perform this, execute steps similar to the ones described in Add Totals to a Report, except that for the summary field, you should set the **Function** property to **Custom**.
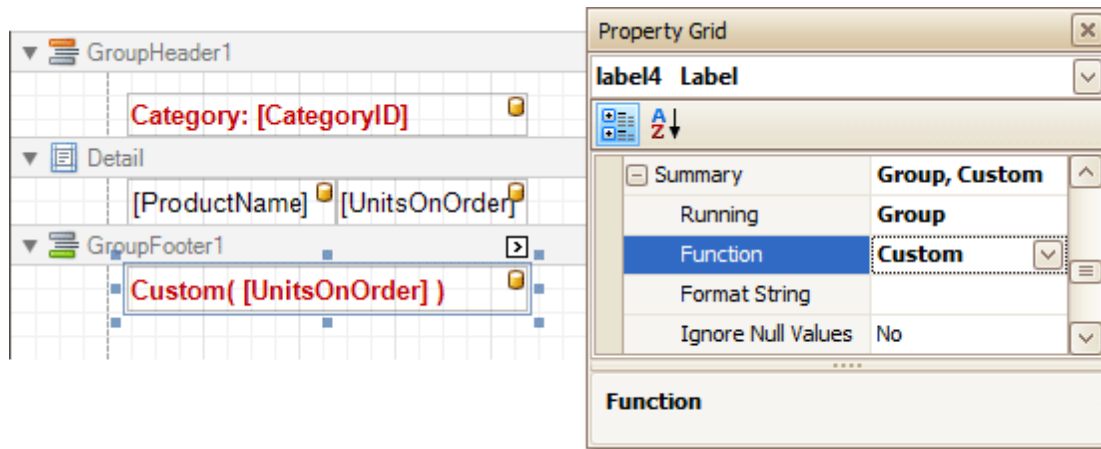
Then, the additional events are added to the label's **Scripts** property.
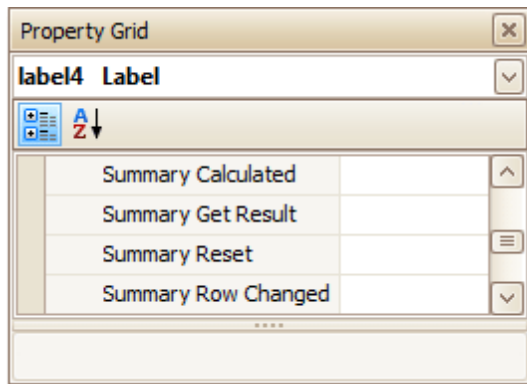
You can handle these events in the following way.

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

```
}
```

| **Visual Basic** | Copy Code |

```vbnet
' Declare a summary and a pack.
Private totalUnits As Double = 0
Private pack As Double = 15
Private Sub OnSummaryReset(ByVal sender As Object, ByVal e As System.EventArgs)
    ' Reset the result each time a group is printed.
    totalUnits = 0
End Sub
Private Sub OnSummaryRowChanged(ByVal sender As Object, ByVal e As System.EventArgs)
    ' Calculate a summary.
    totalUnits += Convert.ToDouble(GetCurrentColumnValue("UnitsOnOrder"))
End Sub
Private Sub OnSummaryGetResult(ByVal sender As Object, _
ByVal e As DevExpress.XtraReports.UI.SummaryGetResultEventArgs)
    ' Round the result, so that a pack will be taken into account
    ' even if it contains only one unit.
    e.Result = Math.Ceiling(totalUnits / pack)
    e.Handled = True
End Sub
```

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

Chang	40
Ipoh Coffee	10
Outback Lager	10
	Total Packs: 4
Aniseed Syrup	70
Louisiana Hot Spiced Okra	100
	Total Packs: 12
Sir Rodney's Scones	40
Chocolade	70
Maxilaku	60
Scottish Longbreads	10
	Total Packs: 12

See Also

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

Show the Current Row Index

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

To show the current row index in a report, use a Label control bound to a data field, and specify its **Summary** options in the following way.
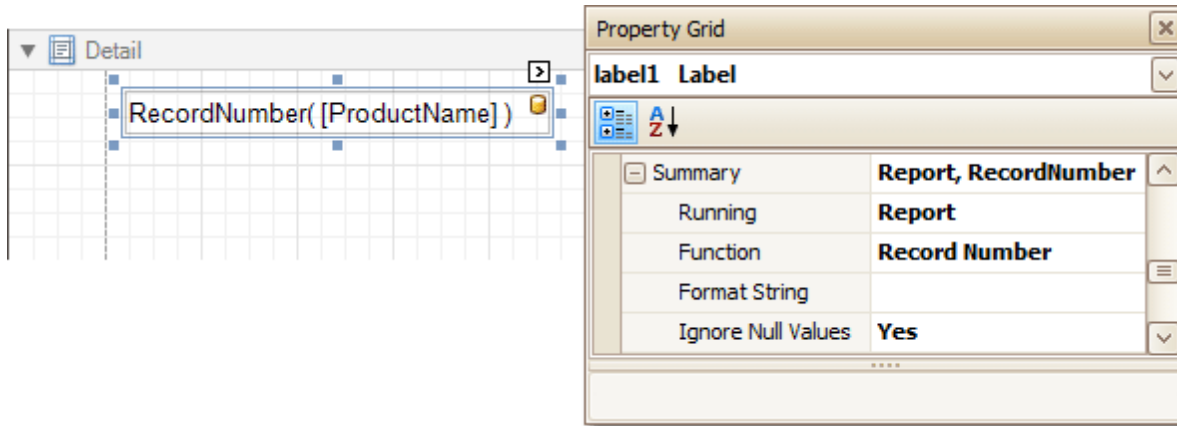
The result is shown in the following image.

See Also

Count the Number of Records in a Report or a Group

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

This tutorial consists of the following sections.

- Count the Number of Records in a Group
- Count the Number of Records in a Report
- Get the Result

Count the Number of Records in a Group

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

- Select the Label in the Group Footer area, and in the Property Grid, expand its **Summary** category.
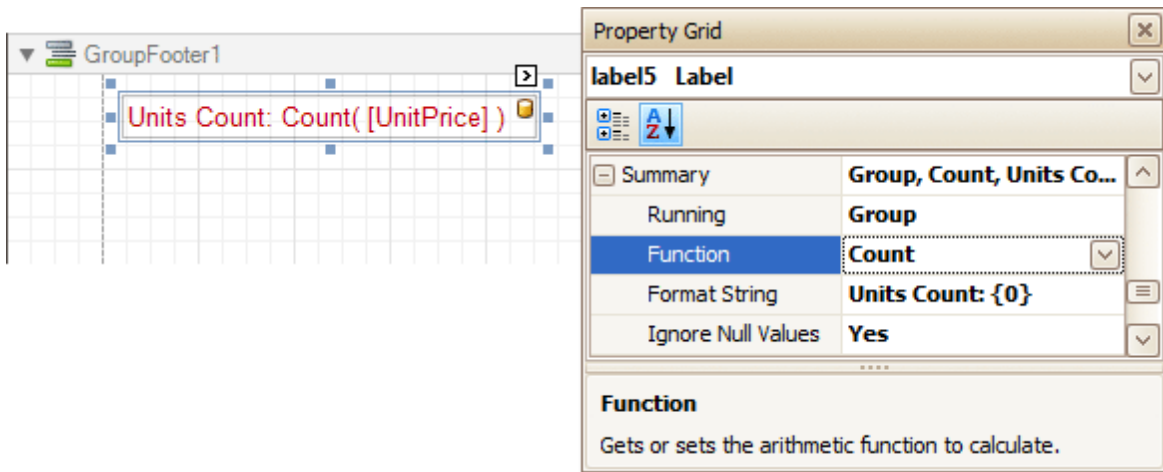
Set the **Running** option to **Group** and the **Function** to **Count**.

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

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

Count the Number of Records in a Report

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

1. To add a Report Footer band to your report, right-click anywhere on it, and in the invoked Context Menu , choose **Insert Band** | **ReportFooter**.
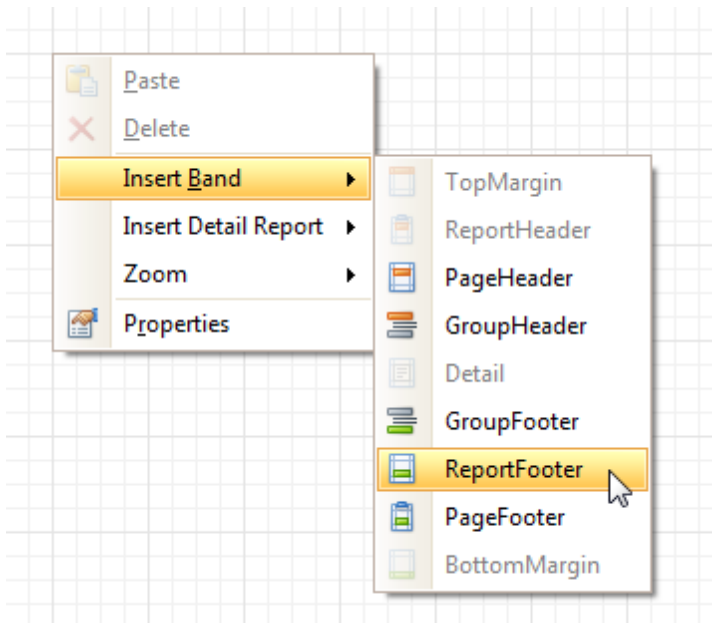
2. Then, place a [Label bound to a data field](#) onto it, and in the Property Grid, expand its **Summary** category.
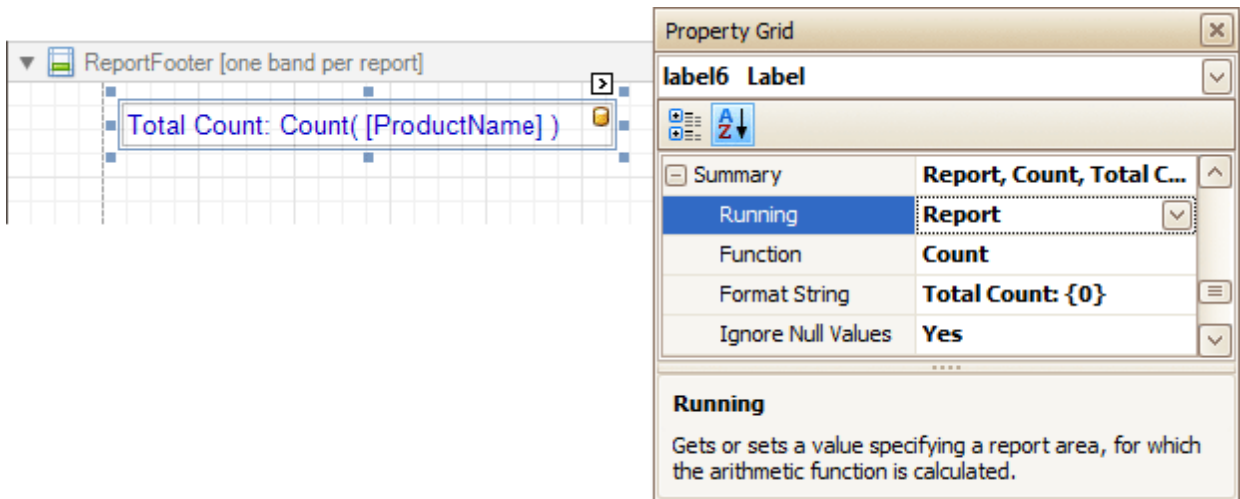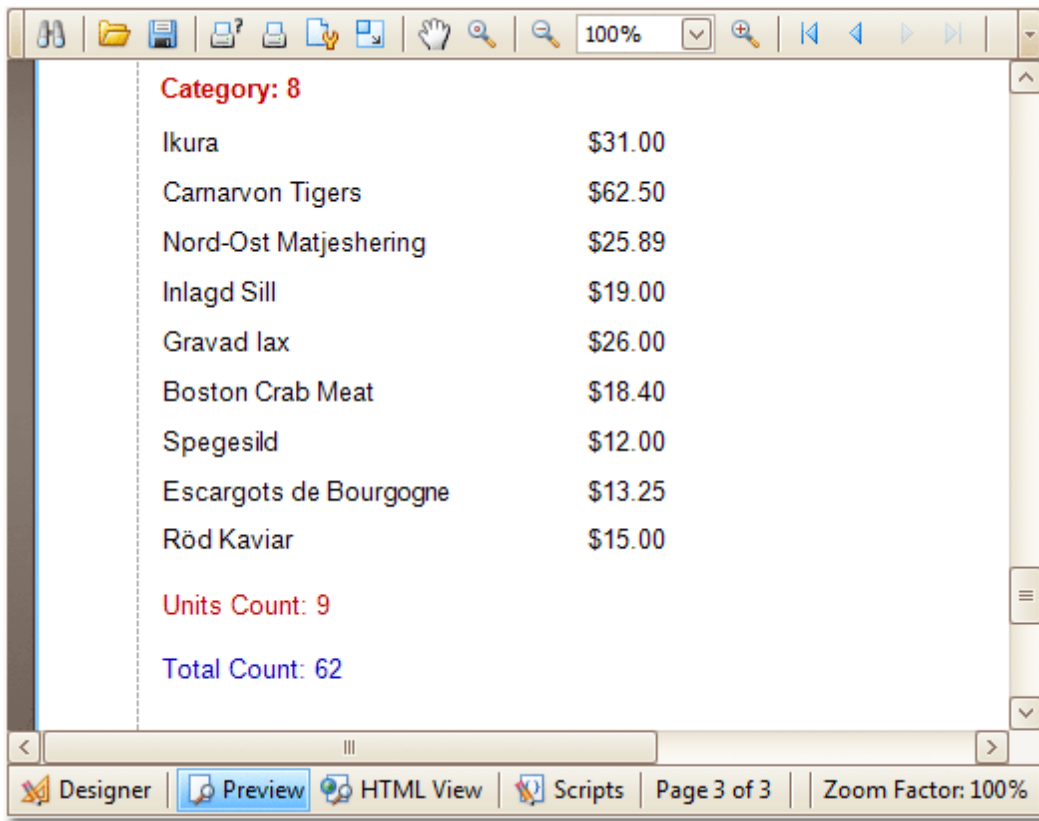
Set the **Running** option to **Report** and **Function** to **Count**.

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

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

Get the Result

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

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Category: 8

Ikura	$31.00
Carnarvon Tigers	$62.50
Nord-Ost Matjeshering	$25.89
Inlagd Sill	$19.00
Gravad lax	$26.00
Boston Crab Meat	$18.40
Spegesild	$12.00
Escargots de Bourgogne	$13.25
Röd Kaviar	$15.00

Units Count: 9

Total Count: 62

🗵 Designer | 🔎 Preview 📑 HTML View | 📜 Scripts | Page 3 of 3 | Zoom Factor: 100%

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

Add Page Numbers for Groups

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

To add page numbers for groups, do the following.

1. From the Toolbox, drop the Page Info control onto the Group Footer.
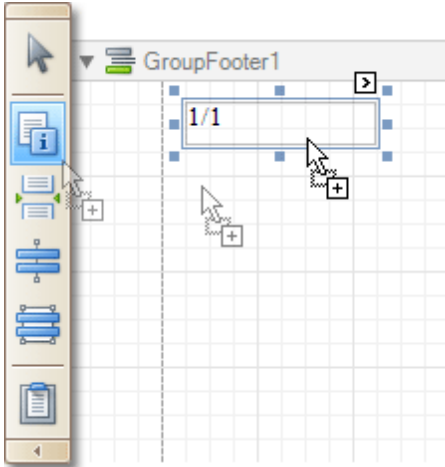
2. Then, select the control, and set its **Running Band** to **GroupHeader1**.
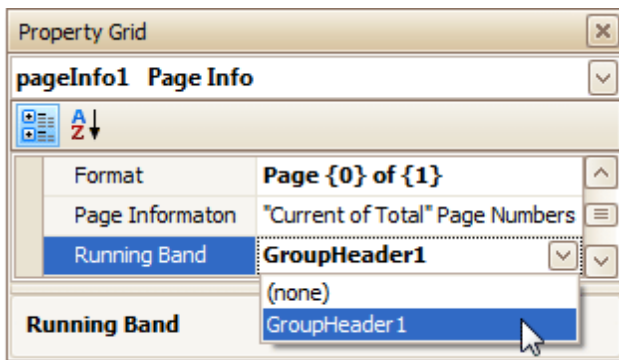
   If required, you also can specify its **Format** property (e.g. **Page {0} of {1}**).

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

   To do this, select the Group Footer, and set its **Page Break** to **After the Band**.
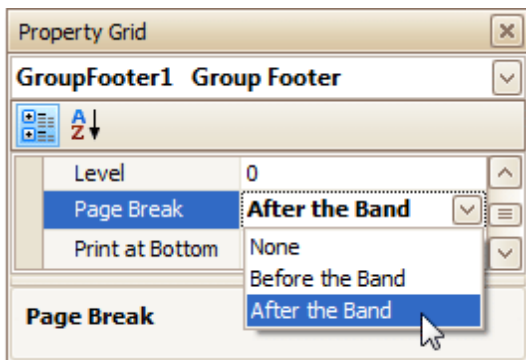
4. Finally, select the Group Footer, and click its Smart Tag. In its actions list, check the **Repeat Every Page** option.
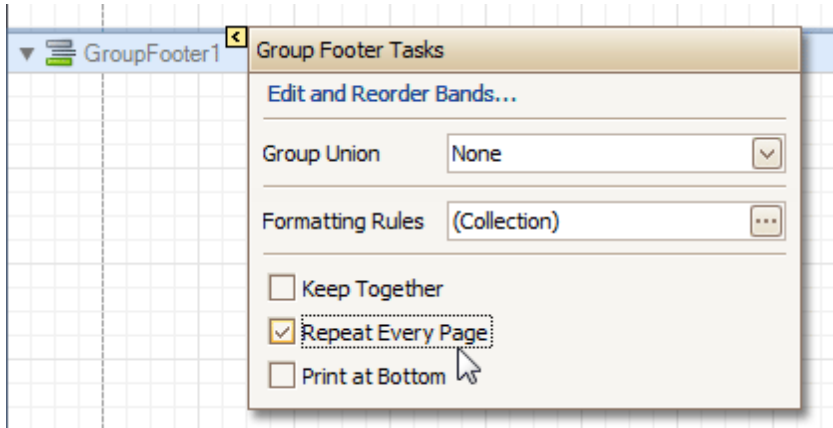
Then, you can do the same for the Group Header, as well.

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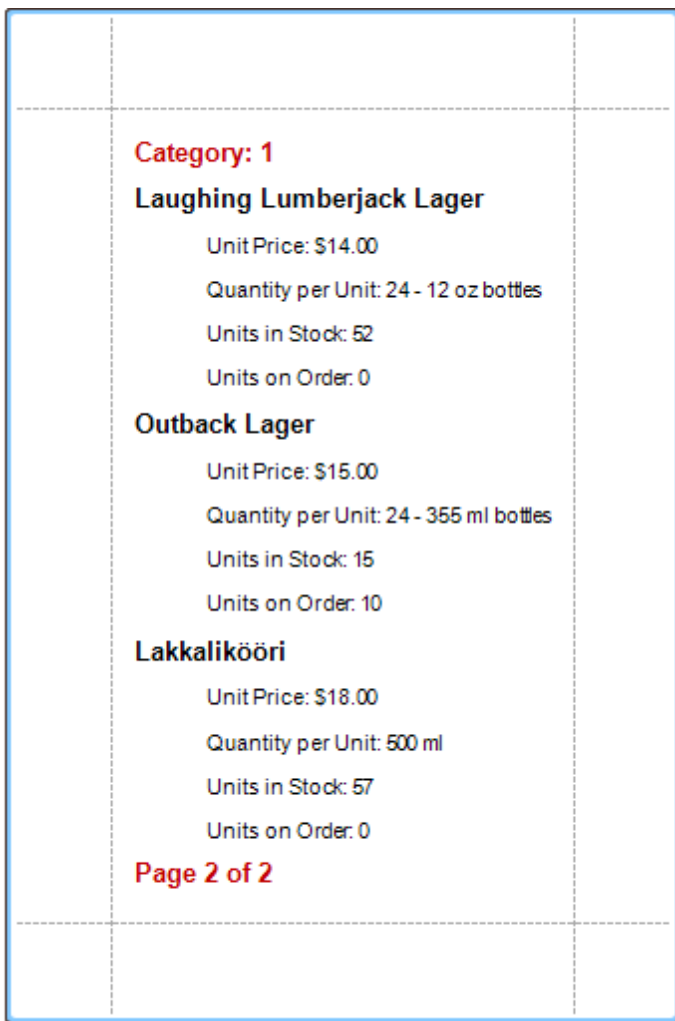
See Also

Sort Groups by a Summary Function Result

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

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

1. Select the Group Header band and click its Smart Tag. In the invoked actions list, click the ellipsis button for the **Sorting Summary** option.
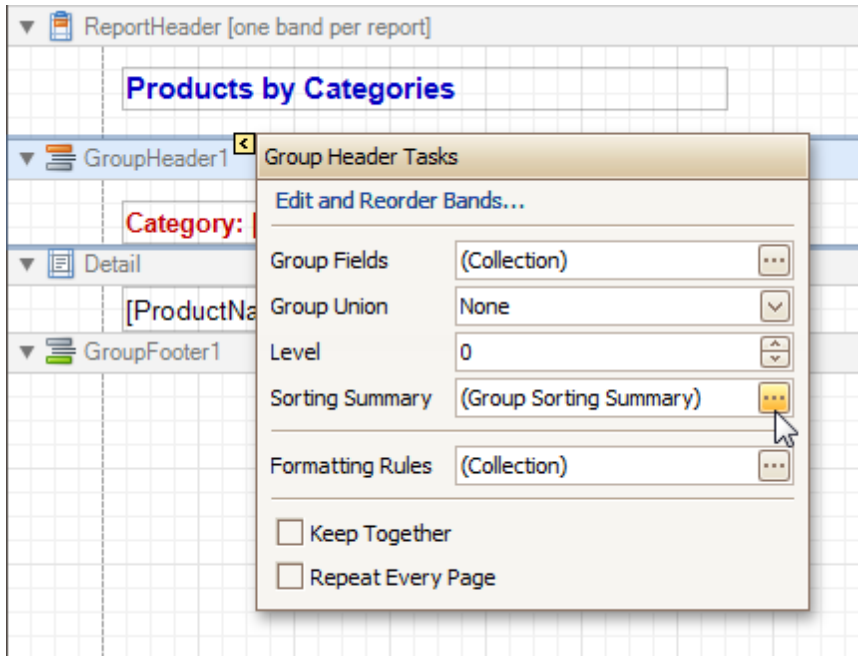
2. Then, in the invoked **Group Sorting Summary Editor**, check the **Enabled** option, and specify a field and summary function against which the group should be sorted.
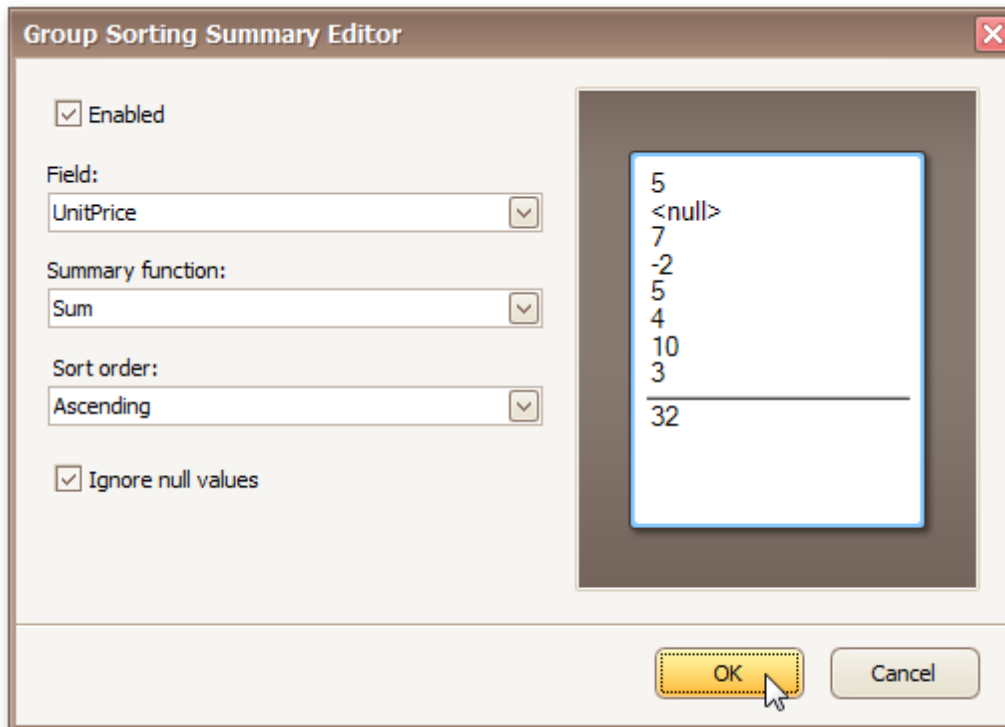
If required, you also can change the default sorting order (from descending to ascending), and choose

to ignore null values.

Click **OK** to apply the changes, and switch to the Preview Tab to view the result.

Products by Categories

Category: 7
Longlife Tofu	$10.00
	$10.00

Category: 2
Aniseed Syrup	$10.00
Louisiana Hot Spiced Okra	$17.00
	$27.00

Category: 8
Gravad lax	$26.00
Røgede sild	$9.50
	$35.50

Category: 3
Sir Rodney's Scones	$10.00
Chocolade	$12.75
Maxilaku	$20.00
Scottish Longbreads	$12.50
	$55.25

Category: 4
Queso Cabrales	$21.00
Gorgonzola Telino	$12.50
Mascarpone Fabioli	$32.00
	$65.50

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

Cancel Printing If a Report Does Not Contain Any Records

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

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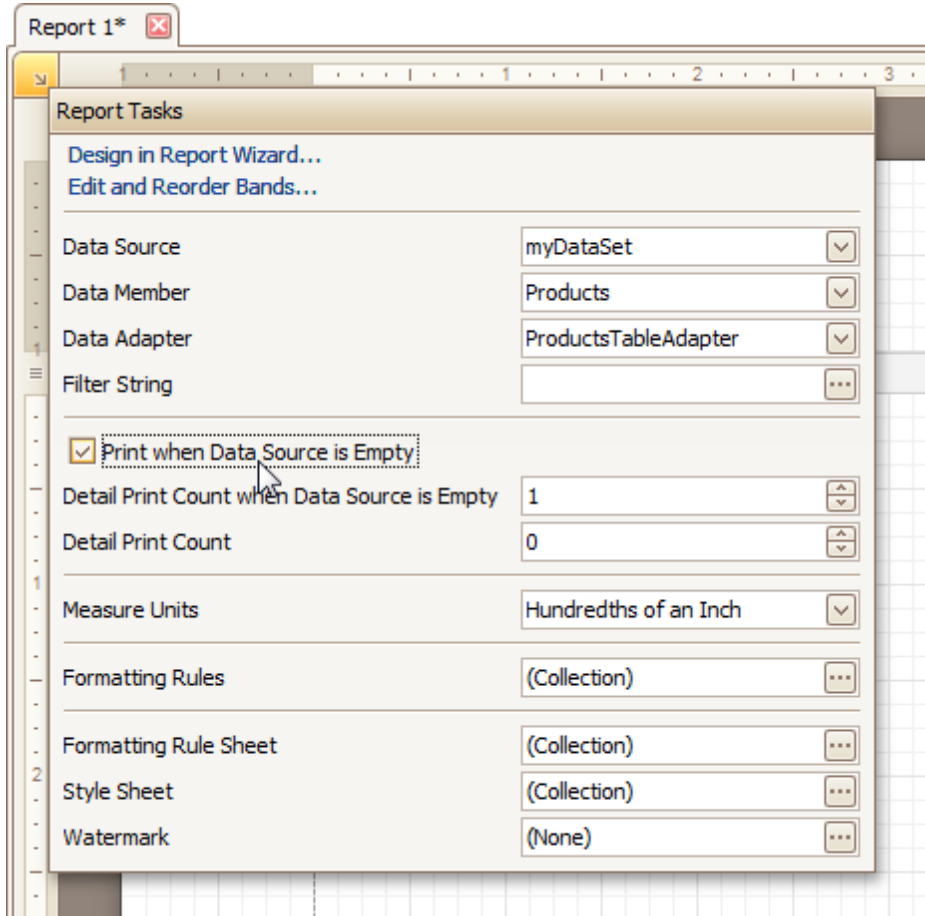
See Also

Limit the Number of Records per Page

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

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

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

1. To add a parameter to the report, in the Field List, right-click the **Parameters** section, and in the invoked menu, choose **Add Parameter**.
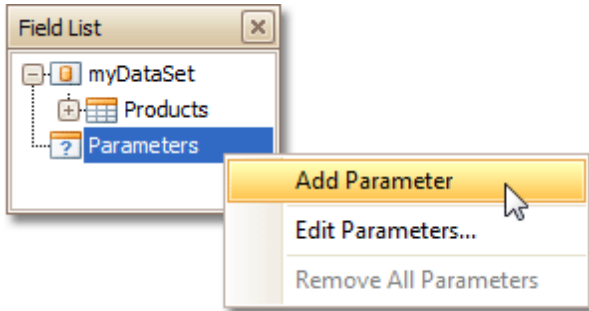
2. Select the parameter, and in the Property Grid, set its **Description** to **Rows per Page:**, **Parameter Type** to **Int32** and **(Name)** to **rowsNumber**.
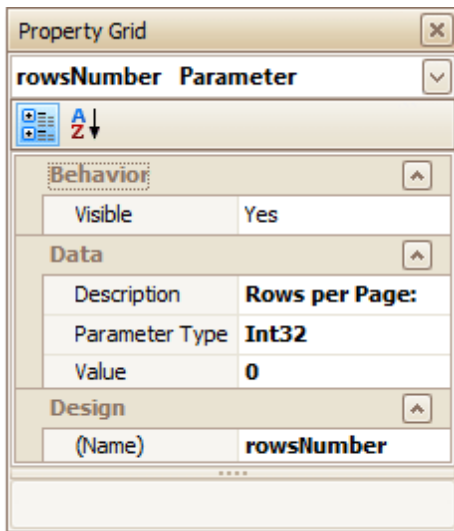
3. From the Toolbox, drop the Page Break control onto the top of the report's Detail band.
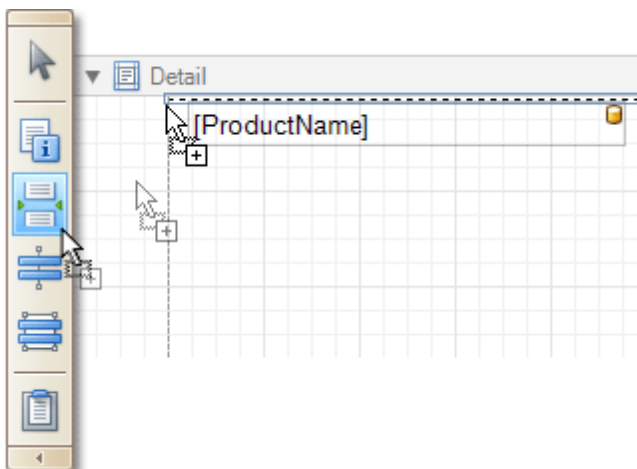
4. Select the Page Break, and set its **Visible** property to **No**. Then, click the ellipsis button for its **Formatting Rules** property, and in the invoked **Formatting Rules Editor**, click the **Edit Rule Sheet...** button.
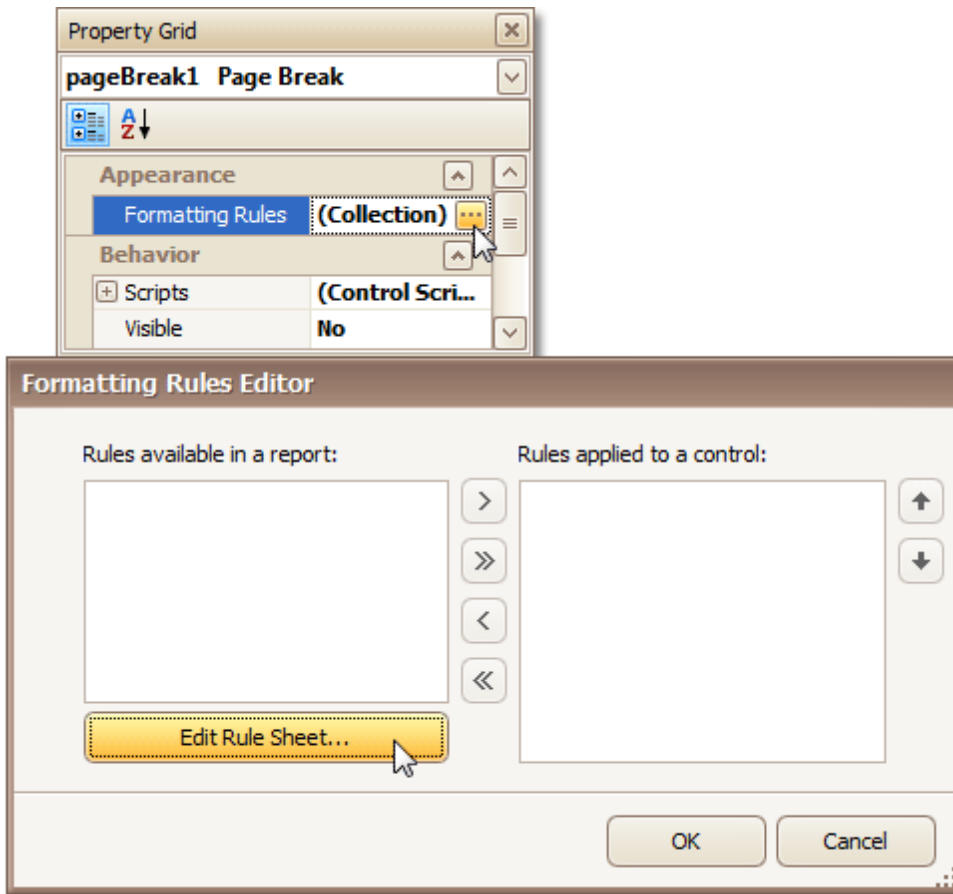
5. Now, in the invoked **Formatting Rule Sheet Editor**, click ➕, to create a new formatting rule. Set its **Visible** property to **Yes**, and click the ellipsis button for its **Condition** property.
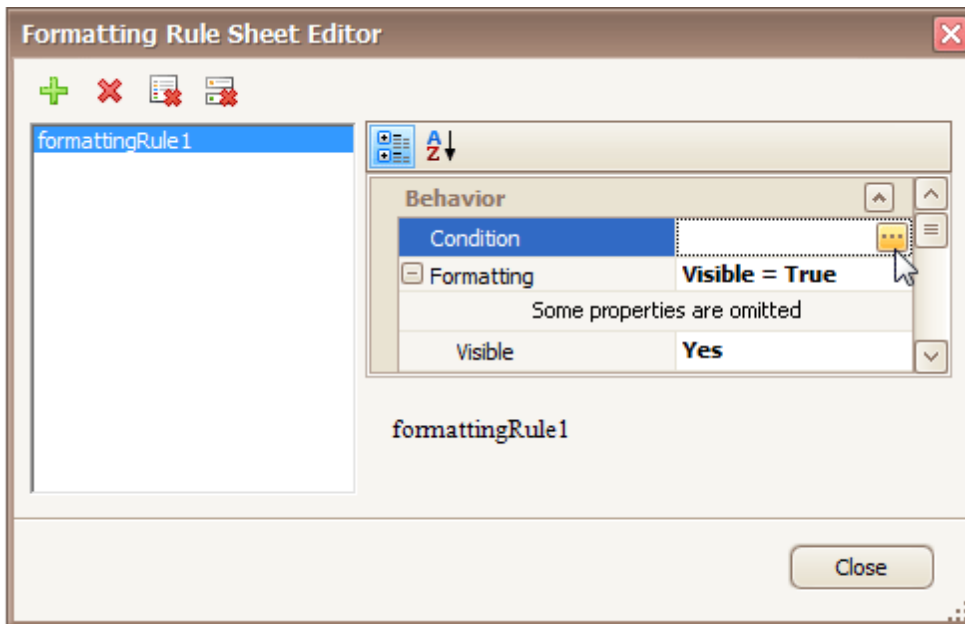
6. In the invoked **Condition Editor**, define a logical expression for the rule, (e.g. **([DataSource. CurrentRowIndex] % [Parameters.rowsNumber] == 0) And ([DataSource.CurrentRowIndex] != 0)**).
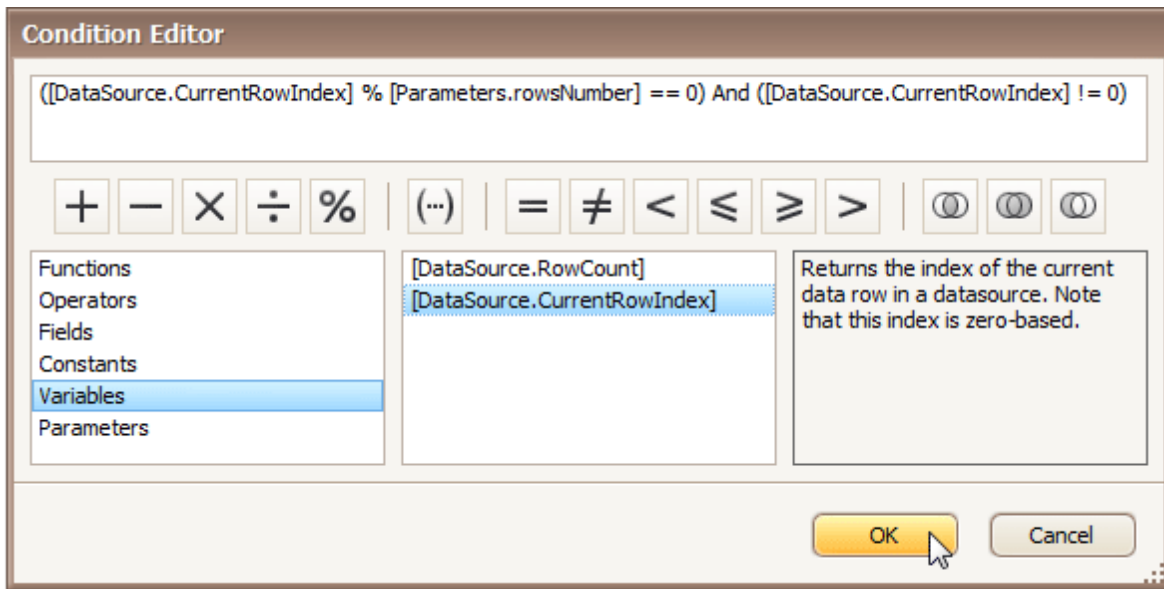
To save the changes and close the dialog, click **OK**.

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

7. Now, back in the **Formatting Rules Editor**, move the created rule to the list of applied rules on the right, using the arrow buttons in the middle of the dialog.
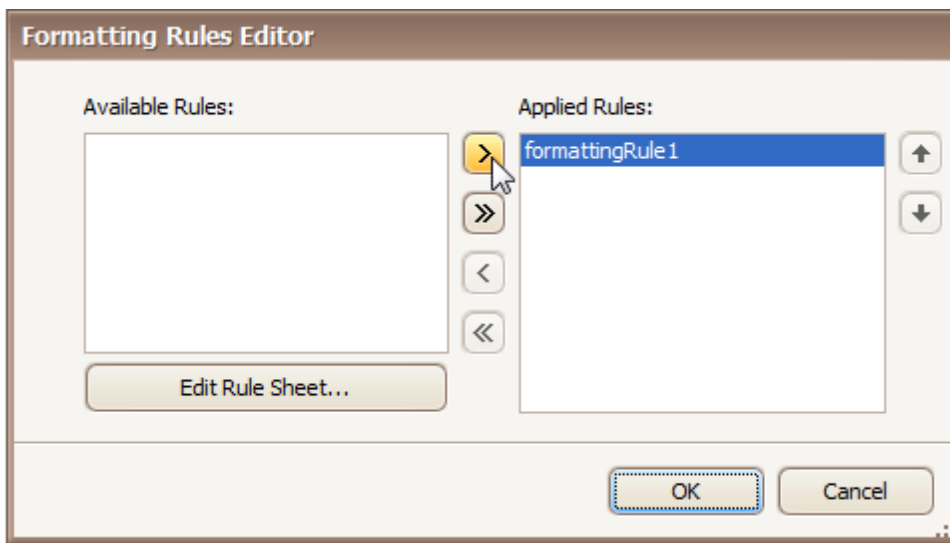
To save the changes and close the editor, click **OK**.

The report is now ready. Switch to the Preview Tab, and in the **Parameters** section, define the required value and click **Submit**.
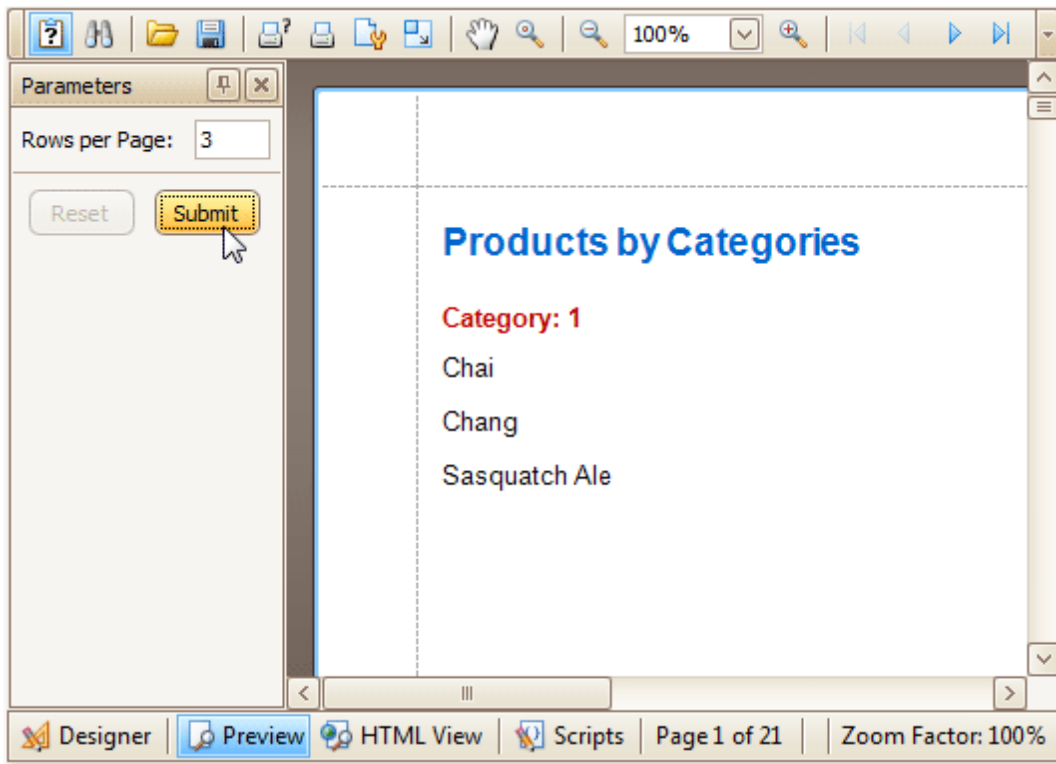
Note that while in this example, the number of rows is specified each time the report is being previewed, you can make this number secure, by setting the parameter's **Value** option to the desired value, and then setting the report's **Request Parameters** option to **No**.

See Also

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

Report Designer Reference

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

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

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

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

- Report Bands
  The documents in this section details the available kinds of report bands and their settings.

- Report Settings
  This document details settings that affect the entire report.

Report Designer UI

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

The Report Designer interface is comprised of the following elements.

General Elements

- Control Toolbox
- Design Panel
- Main Menu

Quick Access Tools

- Context Menu
- Smart Tag

Toolbars

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

Dock Panels

- Field List
- Group and Sort Panel
- Property Grid
- Report Explorer
- Scripts Errors Panel

Tabs

- Designer Tab
- Preview Tab
- HTML View Tab
- Scripts Tab

Additional Elements

- Component Tray
- Status Bar

Component Tray

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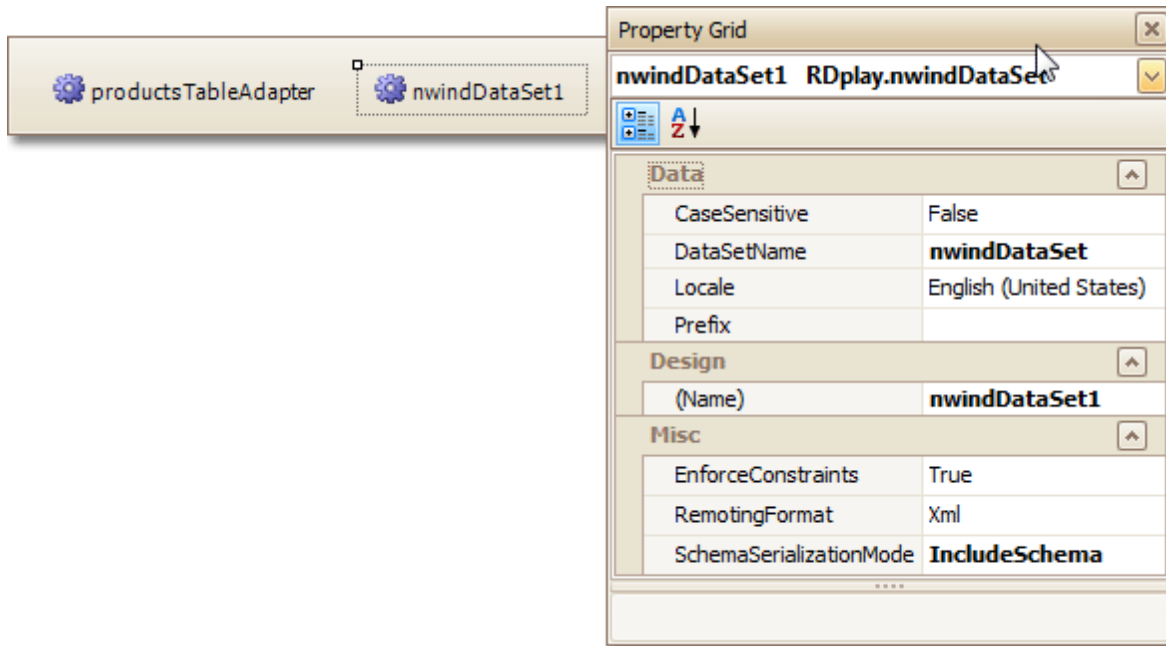
Note

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

See Also

Status Bar

Context Menu

The **Context Menu** can be invoked by the right-clicking a report...
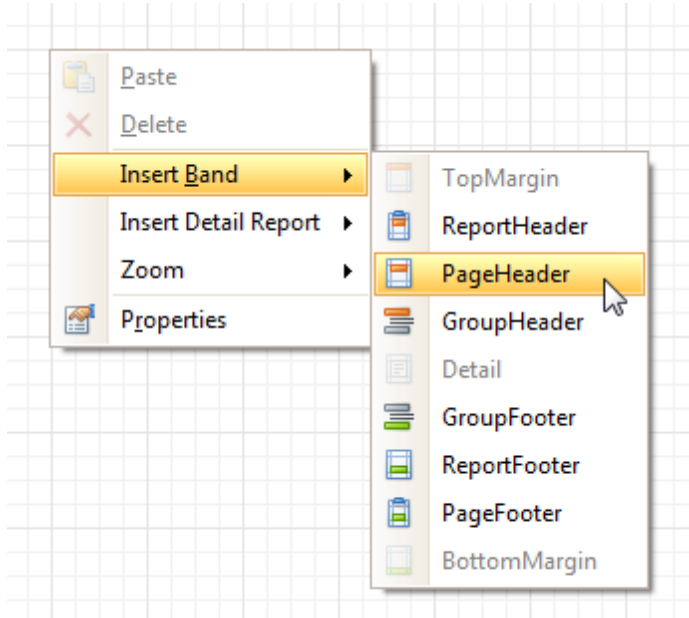
... or its elements (bands and controls). This menu provides quick access to frequently used commands (e.g. zooming, clipboard operations, inserting bands, etc.) The available action set varies, depending on the element where you invoked the Context Menu.
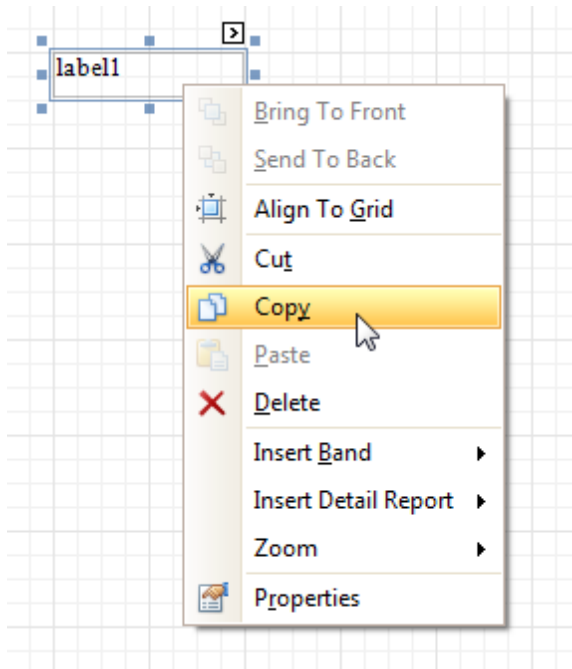
See Also
Smart Tag

Control Toolbox

The **Control Toolbox** lists all available [controls](#) and allows you to add them to your report.

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

- Double-click an item in the Toolbox for the appropriate control, which will be created at the [Detail band](#)'s top left corner.
- Drag and drop an item from the Toolbox onto the required location within a report.
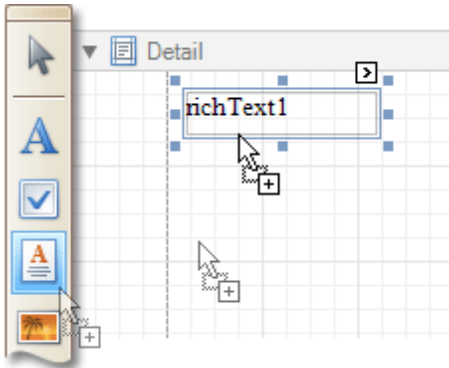
- Select an item in the Toolbox, and then click the required location within a report.
- Select an item in the Toolbox, and then indicate the bounding rectangle by holding the left mouse button.
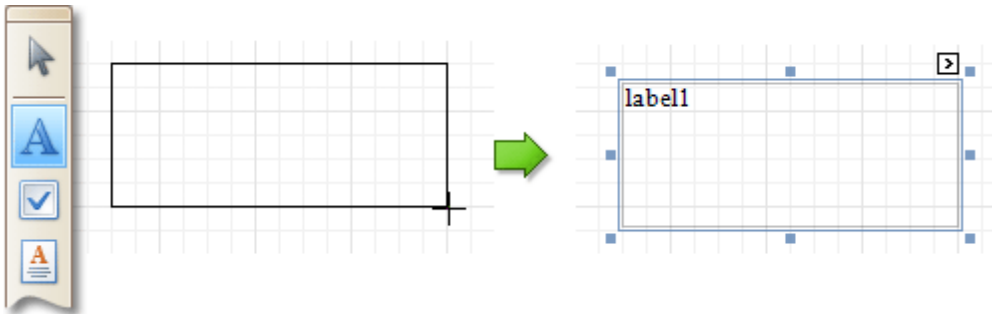
Select the **Pointer** item when you need to perform selection, re-positioning or resizing operations. It is automatically selected after you drop a control onto a report.

If the Toolbox is hidden, you can enable it in the [Main Menu](#), by selecting **View** | **Toolbars** | **Toolbox**.

See Also
[Design Panel](#)

Design Panel

The **Design Panel** is the Report Designer's main area, where a report is being constructed and previewed.
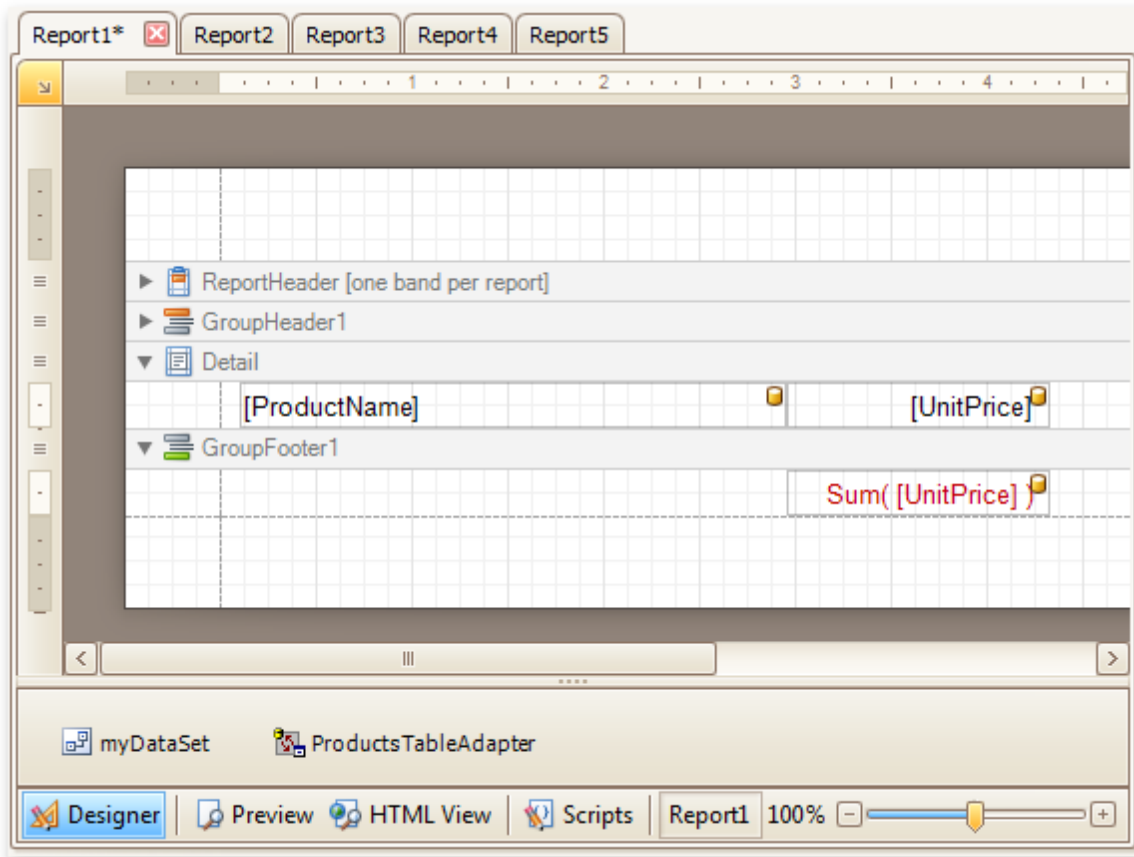
On the Designer Tab, multiple reports can be opened at once (each in its own Design Panel).

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

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

See Also
   Control Toolbox

Designer Tab

The **Designer Tab** allows you to customize a report, manage its bands and controls and define their properties.
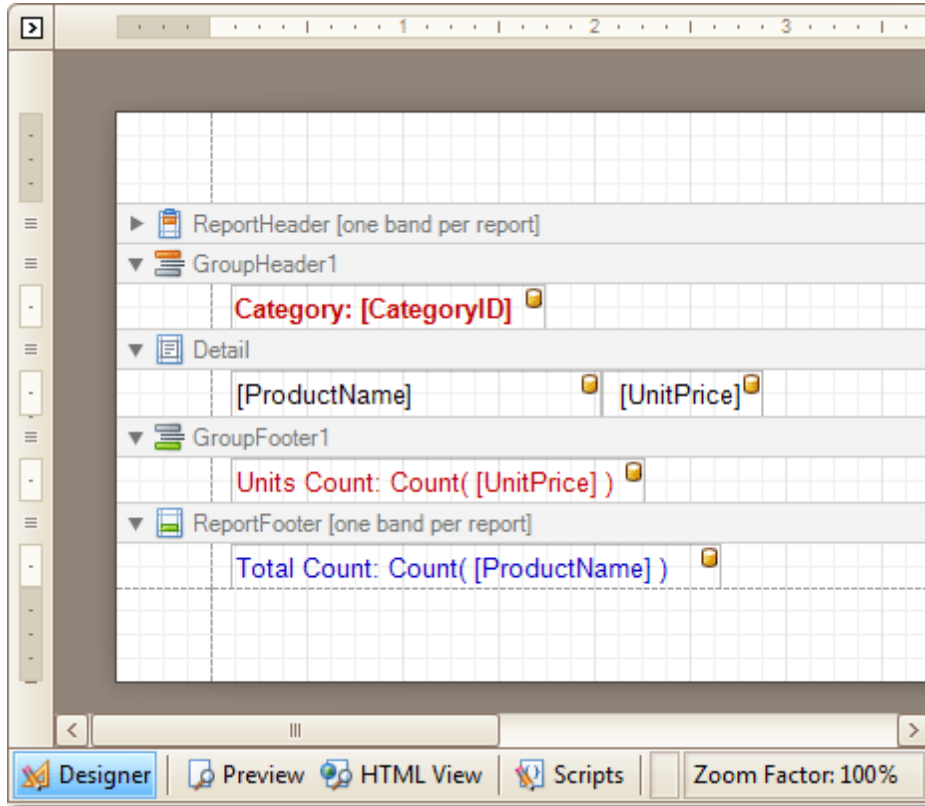
See Also

Field List

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

- Displays the list of all available data fields (attributes you can show in your report) and allows you to create report elements that will show information from these fields.
- Allows you to create calculated fields by building expressions based on the values of data fields, report parameter values, etc.
- Shows existing report parameters, and allows you to add parameters to your report.
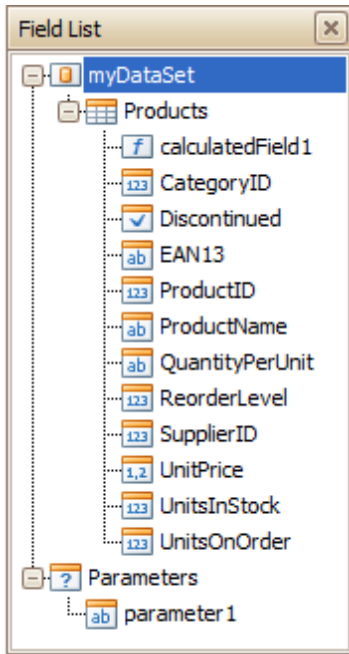
If the Field List is hidden, you can enable it in the Main Menu, by selecting **View** | **Windows** | **Field List**.

See Also
Group and Sort Panel
Property Grid
Report Explorer
Scripts Errors Panel

Formatting Toolbar

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

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

See Also
Layout Toolbar
Main Toolbar
Zoom Toolbar

Group and Sort Panel

The **Group and Sort Panel** allows you to quickly apply grouping and sorting to your report data.
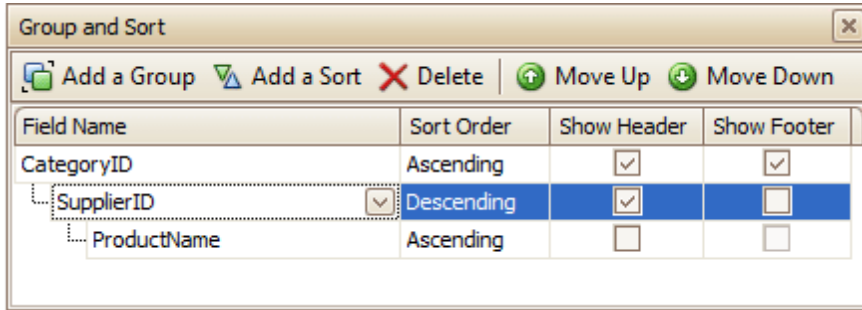
To create a new grouping or sorting criterion, simply click **Add a Group** or **Add a Sort**.

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

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

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

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

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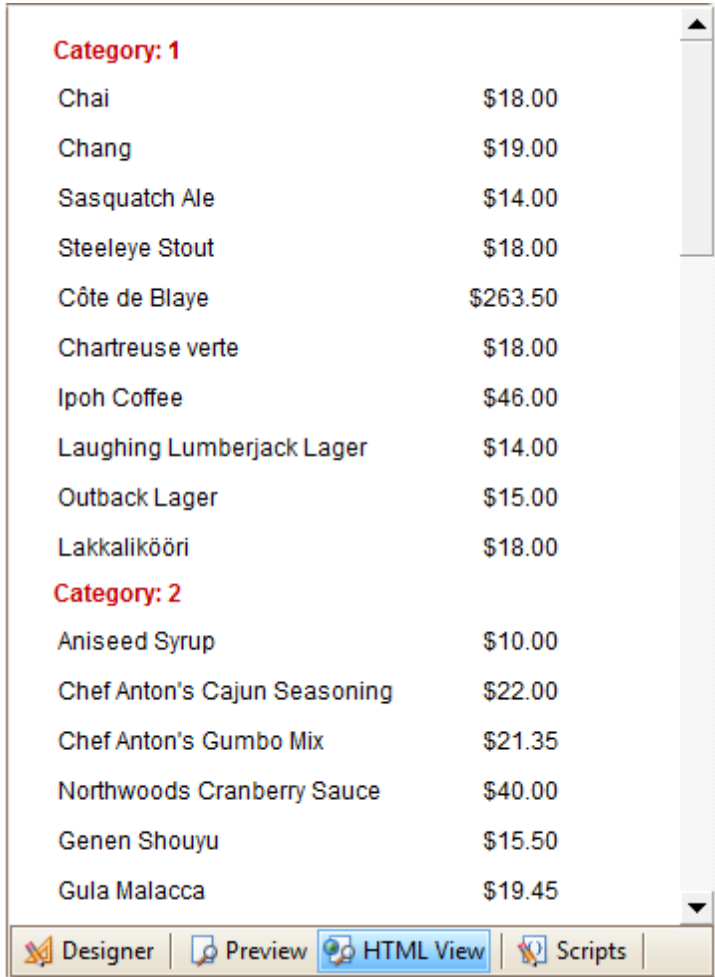
If the Group and Sort Panel is hidden, you can enable it in the Main Menu, by selecting **View** | **Windows** | **Group and Sort**.

See Also

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

HTML View Tab

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

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 Shouyu	$15.50
Gula Malacca	$19.45

Designer | Preview | HTML View | Scripts

See Also

Layout Toolbar

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

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

See Also
Formatting Toolbar
Main Toolbar
Zoom Toolbar

Main Menu

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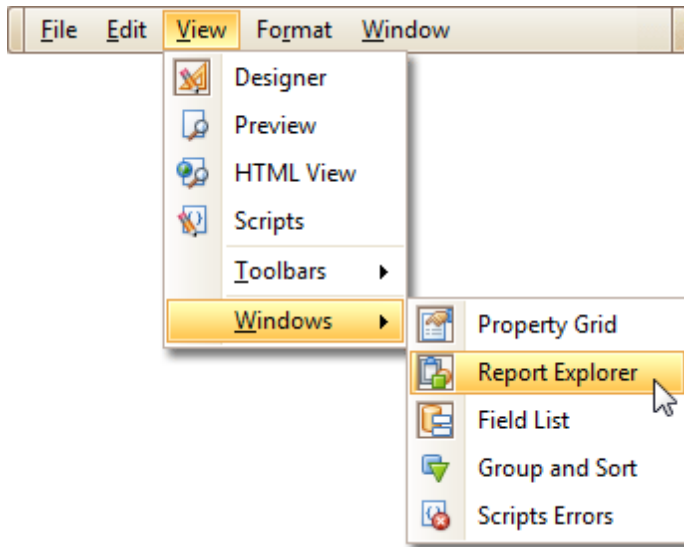
To switch focus on the Main Menu, press ALT.

Main Toolbar

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

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

See Also
Formatting Toolbar
Layout Toolbar
Zoom Toolbar

Preview Tab

The **Preview Tab** is intended to check the print output of a report and customize its additional options.
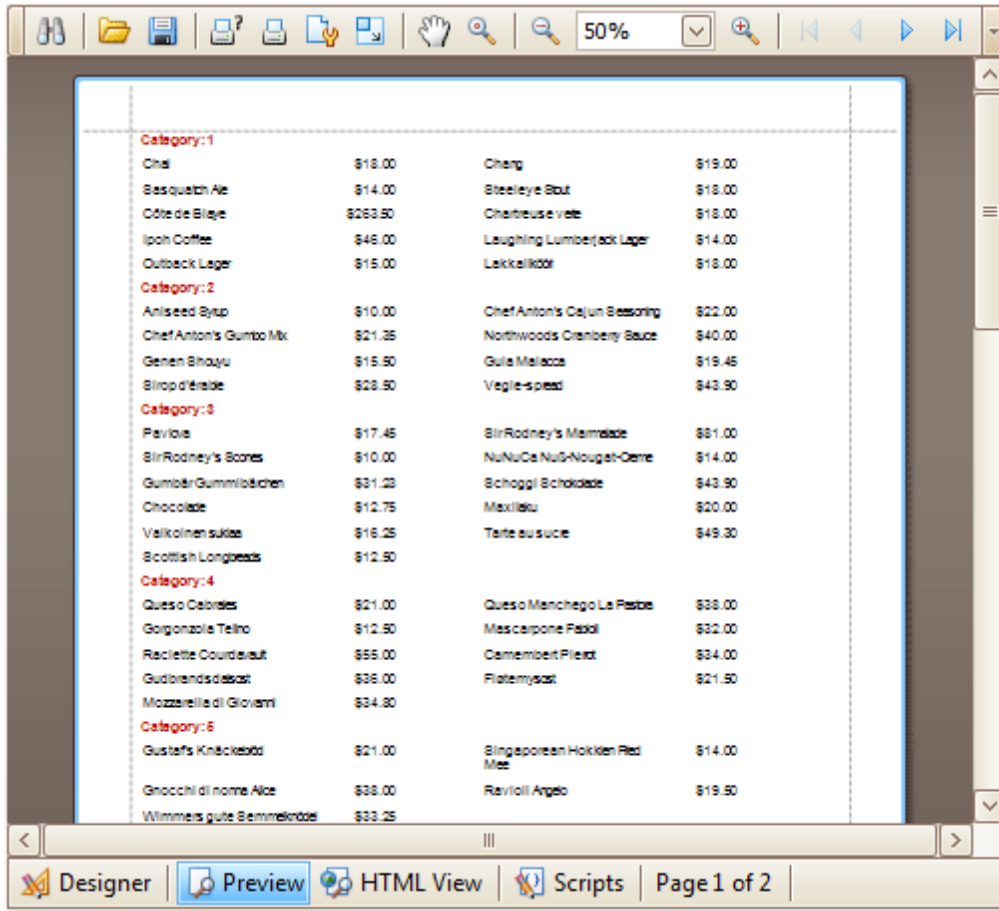
To learn more about print preview capabilities, refer to the Print Preview topic.

See Also

Property Grid

The **Property Grid** allows you to change the settings of the currently selected report element.
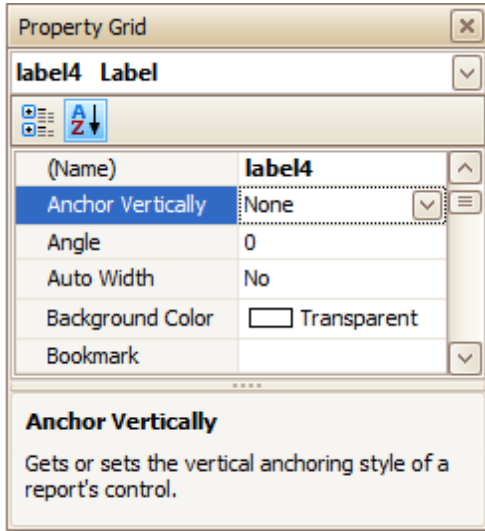
To select an element and show its properties within the Property Grid, do one of the following.

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

To reset a property value, right-click this property, and in the invoked menu, click **Reset**.
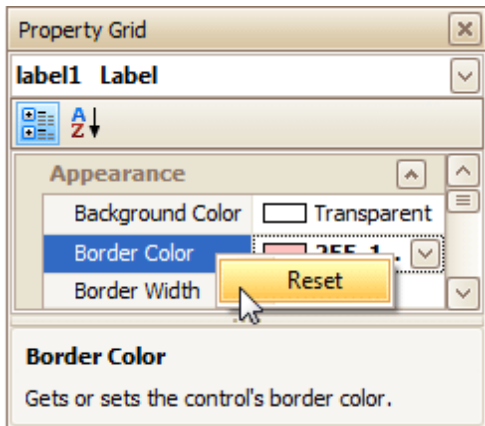
If the Property Grid is hidden, you can enable it in the Main Menu, by selecting **View** | **Windows** | **Property Grid**.

See Also
Field List
Group and Sort Panel
Report Explorer
Scripts Errors Panel

Report Explorer

The **Report Explorer** shows a report's structure in a tree form, providing easy access to report elements. Once an element has been selected in the Report Explorer, it's settings can be changed using the Property Grid.
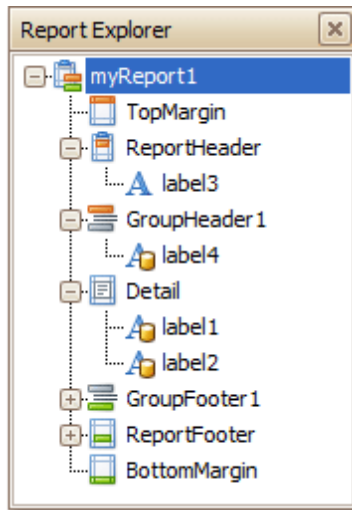
If the Report Explorer is hidden, you can enable it in the Main Menu, by selecting **View** | **Windows** | **Report Explorer**.

See Also
Field List
Group and Sort Panel
Property Grid
Scripts Errors Panel

Scripts Errors Panel

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

Then, if errors are located, they are listed in this panel. To get to the corresponding line of code, click the corresponding item in the panel's list.
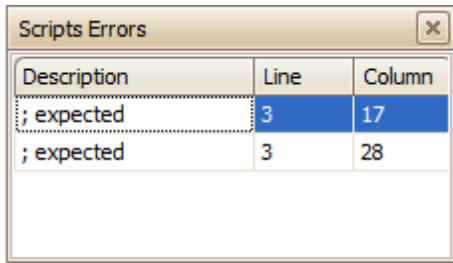
Or, if all scripts are valid, the panel reports this.
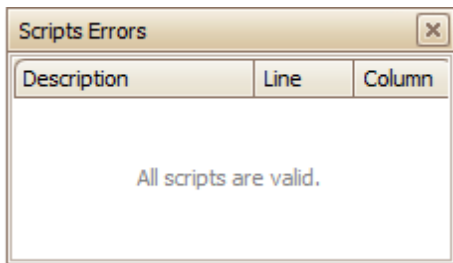
For more information, refer to Handle Events via Scripts.

See Also
Field List
Group and Sort Panel
Property Grid
Report Explorer

Scripts Tab

The **Scripts Tab** allows you to manage your report's scripts. It provides centralized access to all the scripts being written for a report or any of its elements (bands and controls).
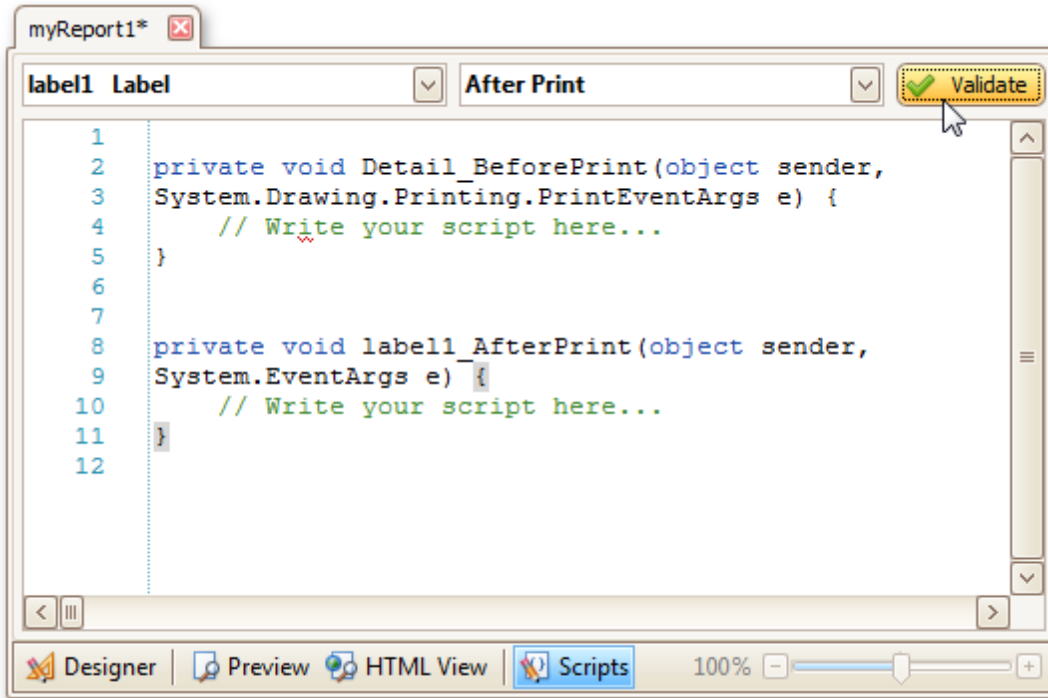
The built-in scripts validation capability is provided in this tab. After clicking **Validate**, the result is displayed in the Scripts Errors Panel.

For more information, refer to Handle Events via Scripts.

See Also
Designer Tab
Preview Tab
HTML View Tab

Smart Tag

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

- **Report Smart Tag**

  A report's Smart Tag icon is located at the top left corner of the Design Panel.
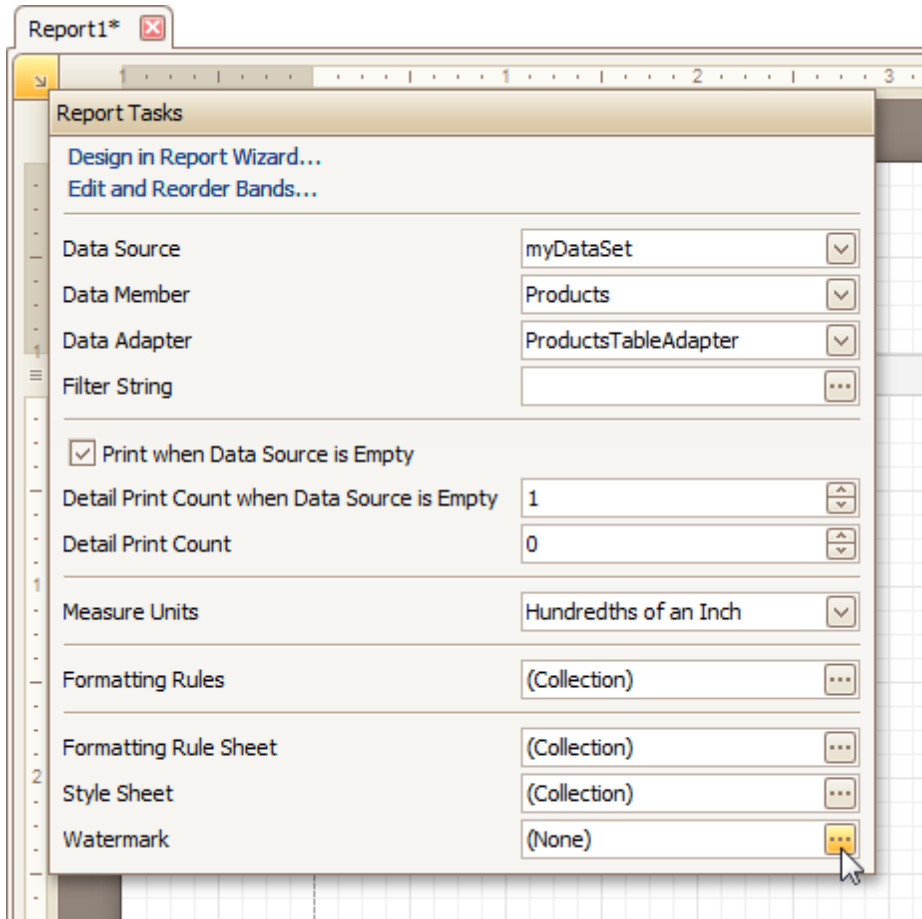
- **Band Smart Tag**

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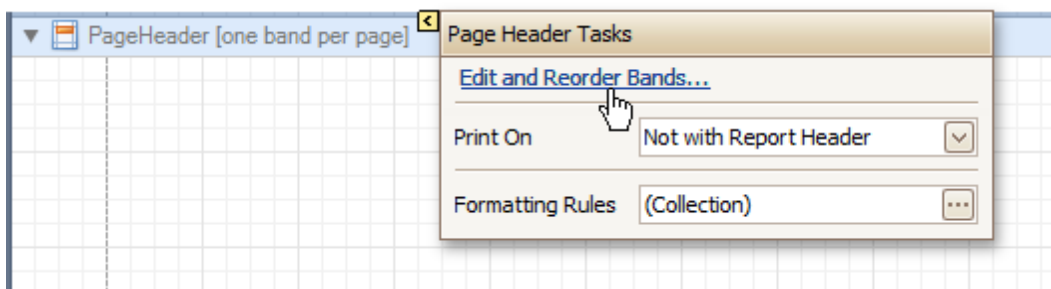
- **Control Smart Tag**

  A control's Smart Tag icon is located at the top right corner of the control. For instance, the Smart Tag for the Rich Text control is shown in the following image.
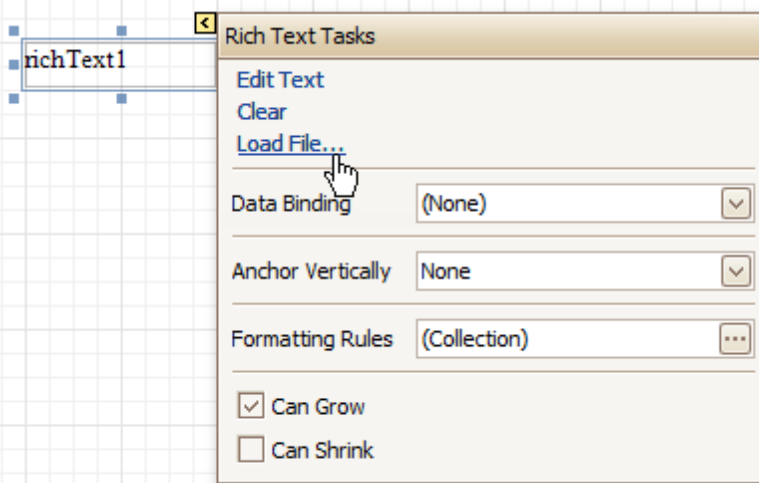
And, this is the Smart Tag for the Picture Box control.
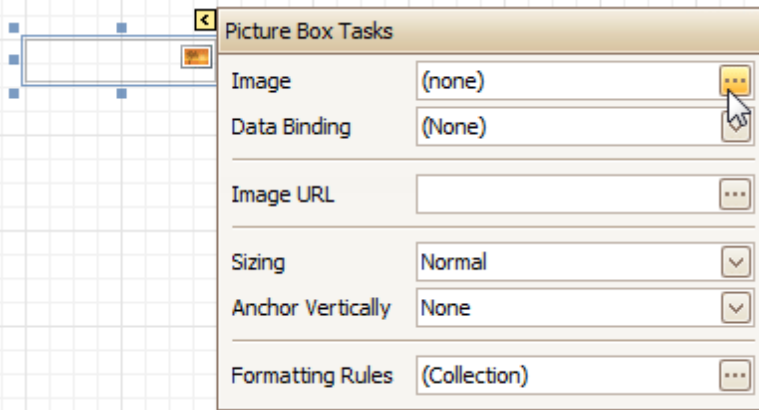
See Also
Context Menu

Status Bar

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

Undo the last operation

See Also
Component Tray

Zoom Toolbar

The **Zoom Toolbar** allows you to zoom a report in and out, providing easier control over report's layout.
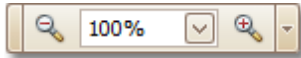
If the Zoom Toolbar is hidden, you can enable it in the Main Menu, by selecting **View** | **Toolbars** | **Zoom Toolbar**.

See Also
Formatting Toolbar
Layout Toolbar
Main Toolbar

Report Controls

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

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

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

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

This document consists of the following sections.

- Available Controls
- Add Controls to a Report

Available Controls

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

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

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

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

Add Controls to a Report

To create a control, drag it from the Toolbox panel onto the report area.
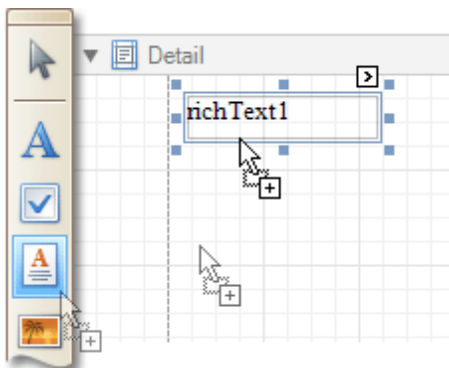
To automatically create a control bound to data, drag a field from the Field List panel, and drop it onto a report's surface. When dropping a field onto an existing control, this control will be bound to the data field.
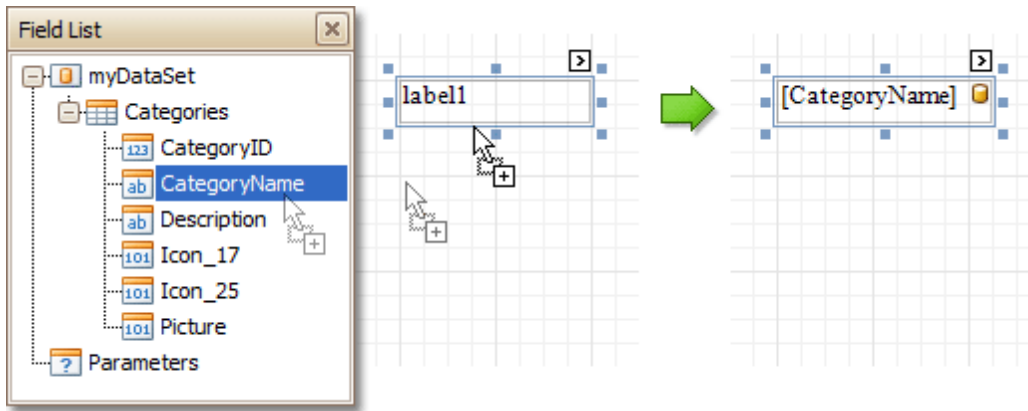
If you drag the field with the right mouse button, when the button is released the context menu is invoked. Use this menu to specify which control should be created.
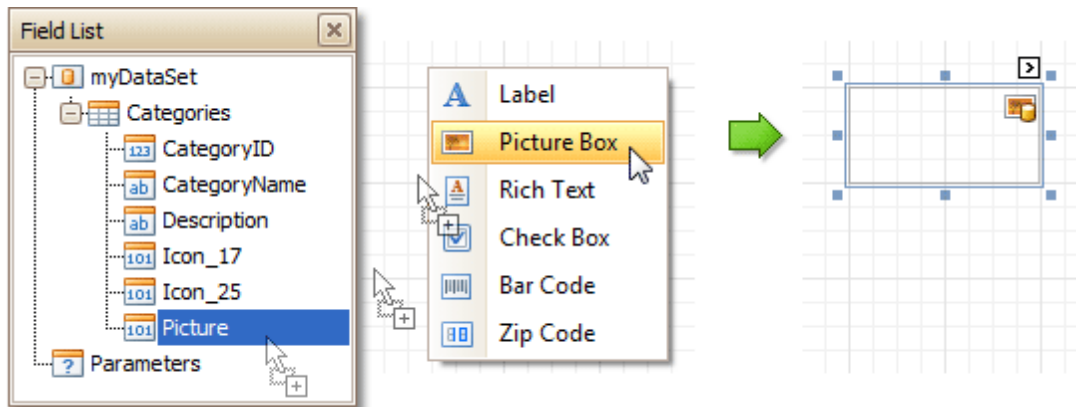
To learn more on data binding for report controls, refer to Display Values from a Database (Bind Report Elements to Data).

📝**Note**

When controls overlap, the report may be shown incorrectly when exported to some formats. Red markers and a report tooltip will warn of this situation. You may switch off the red warning marks via the report's **Show Export Warnings** property.
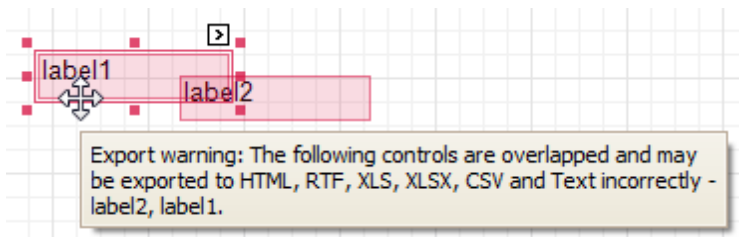
To learn how report controls can be relocated and resized, refer to Change Element Layout in Your Report and Controls Positioning.

Label

The most basic **Label** control is intended to display text in your report. It can represent static or dynamic text, or both. In addition, it can be used to calculate standard summary functions across a data field. The Label's text can only be formatted as a whole. So, if it's required to differently format parts of text, use the Rich Text control.
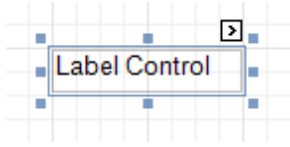
After a Label is added to a report, you can customize its text, appearance and other properties, which can be accessed in the Property Grid. The most important properties are also available via a control's Smart Tag, which makes it easy to perform common operations. And, the Formatting Toolbar allows you to easily adjust a Label's text formatting.

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

Appearance

- **Background Color**

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

- **Borders**, **Border Color** and **Border Width**

  Specify border settings for the control.

- **Font**

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

- **Foreground Color**

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

- **Formatting Rules**

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

- **Padding**

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

- **Style Priority**

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

- **Styles**

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

- **Text Alignment**

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

Behavior

- **Anchor Vertically**

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

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

- **Angle**

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

- **Auto Width**

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

- **Can Grow**

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

- **Can Shrink**

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

- **Keep Together**

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

- **Multiline**

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

- **Process Duplicates**

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

- **Process Null Values**

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

- **Scripts**

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

- **Visible**

  Specifies whether the control should be visible in print preview.

- **Word Wrap**

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

Data

- **(Data Bindings)**

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

- **Lines**

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

- **Summary**

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

Note

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

- **Tag**

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

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

- **Text**

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

  type in right in-place

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

- **Xlsx Format String**

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

Design

- **(Name)**

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

Layout

- **Location**

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

- **Size**

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

- **Snap Line Margin**

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

Navigation

- **Bookmark** and **Parent Bookmark**

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

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

- **Navigation URL** and **Navigation Target**

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

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

Check Box

The **Check Box** control is intended to display True/False or Checked/Unchecked/Indeterminate states in a report, by displaying (or not) a check mark, which can be accompanied by a text description.
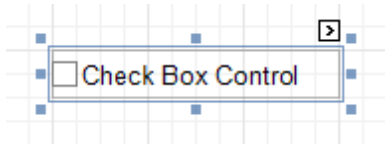
In the Property Grid, the Check Box control's properties are divided into the following groups.

Appearance

- **Background Color**

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

- **Borders**, **Border Color** and **Border Width**

  Specify border settings for the control.

- **Font**

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

- **Foreground Color**

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

- **Formatting Rules**

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

- **Padding**

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

- **Style Priority**

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

- **Styles**

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

- **Text Alignment**

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

Behavior

- **Anchor Vertically**

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

- **Keep Together**

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

- **Scripts**

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

- **Visible**

Specifies whether the control should be visible in print preview.

- **Word Wrap**

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

Data

- **(Data Bindings)**

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

- **Check State**

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

- **Checked**

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

- **Tag**

  This property allows you to add some additional information to the control; for example its id, by which it can then be accessible via [scripts](#).

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

- **Text**

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

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

- **Xlsx Format String**

  Specifies the native XLSX format string for the control's content, which is to be preserved when the report is being [exported](#) to XLSX. This format string is independent from the general [value formatting](#).

Design

- **(Name)**

  Determines a control's name, by which it can be accessed in the [Report Explorer](#), [Property Grid](#) or via [scripts](#).

Layout

- **Location**

  Specifies the control's location, in [report measurement units](#).

- **Size**

  Specifies the control's size, in [report measurement units](#).

- **Snap Line Margin**

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

Navigation

- **Bookmark** and **Parent Bookmark**

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

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

- **Navigation URL** and **Navigation Target**

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

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

Rich Text

The **Rich Text** control allows you to display formatted text in your report. It can represent static or dynamic text, or both. You can load content to the Rich Text from an external TXT or RTF file (which can also contain images) and then format any part of it. The formatting options include font face, styles and sizes, and color.

A content from an external TXT or RTF file can be loaded to this control via its Smart Tag.
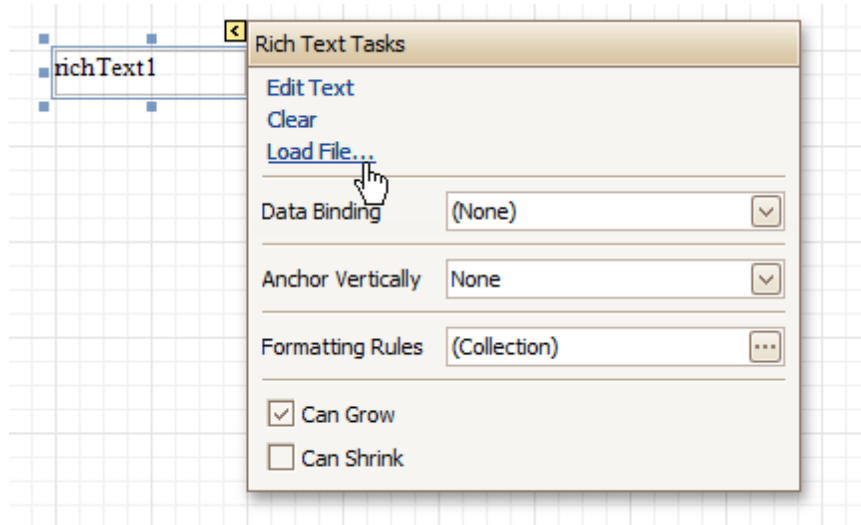
In the Property Grid, the Rich Text control's properties are divided into the following groups.

Appearance

- **Background Color**

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

- **Borders**, **Border Color** and **Border Width**

  Specify border settings for the control.

- **Font**

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

- **Foreground Color**

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

- **Formatting Rules**

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

- **Padding**

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

- **Style Priority**

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

- **Styles**

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

Behavior

- **Anchor Vertically**

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

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

- **Can Grow**

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

- **Can Shrink**

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

- **Keep Together**

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

- **Process Duplicates**

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

- **Process Null Values**

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

- **Scripts**

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

- **Visible**

  Specifies whether the control should be visible in print preview.

Data

- **(Data Bindings)**

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

- **Lines**

  Provides access to the Text property of the control, allowing you to input multiple lines of static text.

- **Tag**

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

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

- **Text**

  Allows you to define a line of static text to be displayed. To type several lines of text, use the Lines

property. Note that when the control is selected in the designer, you may simply start typing the text, and it will be automatically entered into the in-place editor.

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

Design

- **(Name)**

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

Layout

- **Location**

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

- **Size**

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

- **Snap Line Margin**

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

Navigation

- **Bookmark** and **Parent Bookmark**

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

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

- **Navigation URL** and **Navigation Target**

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

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

Picture Box

The **Picture Box** control is intended to display images of numerous formats in a report. An image can be loaded from an external file, from a [bound data source](#), or from a web location using the specified URL.
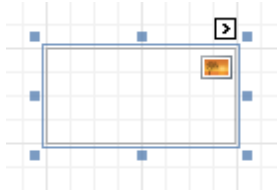
The following image formats are supported: BMP, DIB, RLE, JPG, JPEG, JPE, JFIF, GIF, EMF, WMF, TIF, TIFF, PNG and ICO.

To quickly load an image from an external file, use the control's [Smart Tag](#).
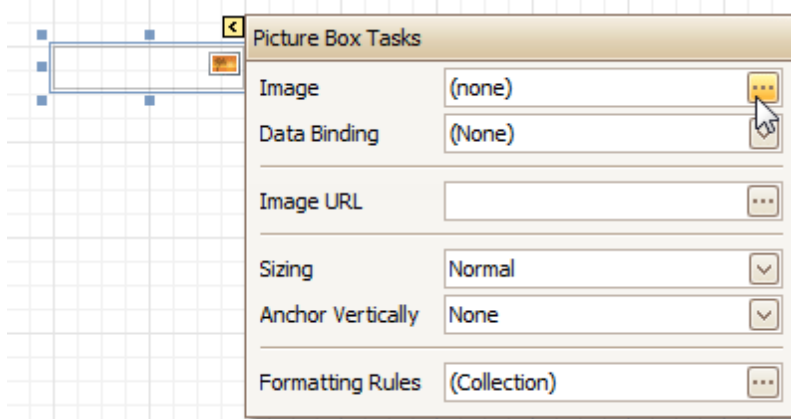
To bind the control to a data field containing images, right-click the corresponding [Field List](#) item, and then drag and drop it onto a report. This will invoke the [Context Menu](#), where you can choose the **Picture Box**, and it will be automatically created and bound to the selected data field.
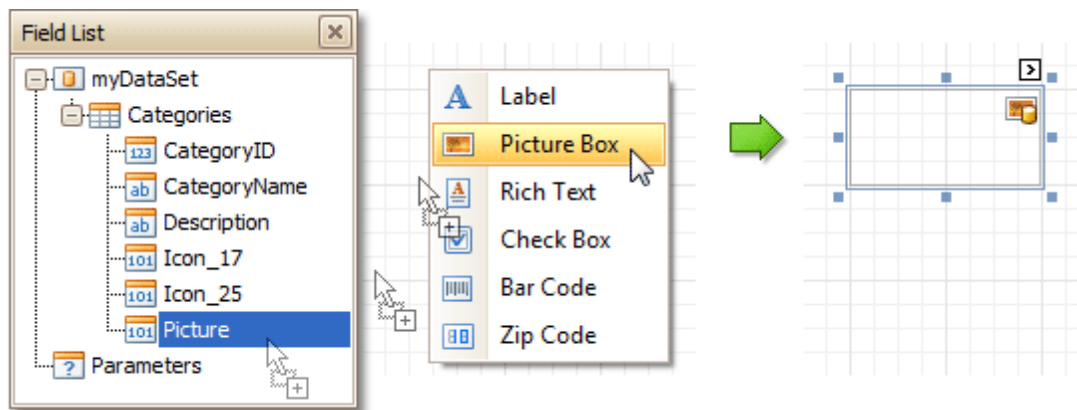
In the [Property Grid](#), the Picture Box control's properties are divided into the following groups.

Appearance

- **Background Color**
  Specifies the background color for the control.

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

- **Formatting Rules**
  Invokes the Formatting Rules Editor allowing you to choose which rules should be applied to the control during report generation, and define the precedence of the applied rules. To learn more on this, refer to

Conditionally Change a Control's Appearance.

- **Padding**

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

- **Style Priority**

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

- **Styles**

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

Behavior

- **Anchor Vertically**

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

- **Keep Together**

- **Scripts**

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

- **Sizing**

  Defines the sizing mode of a contained image. To quickly adjust the image size and position within the control, click its Smart Tag, and choose **Sizing**.
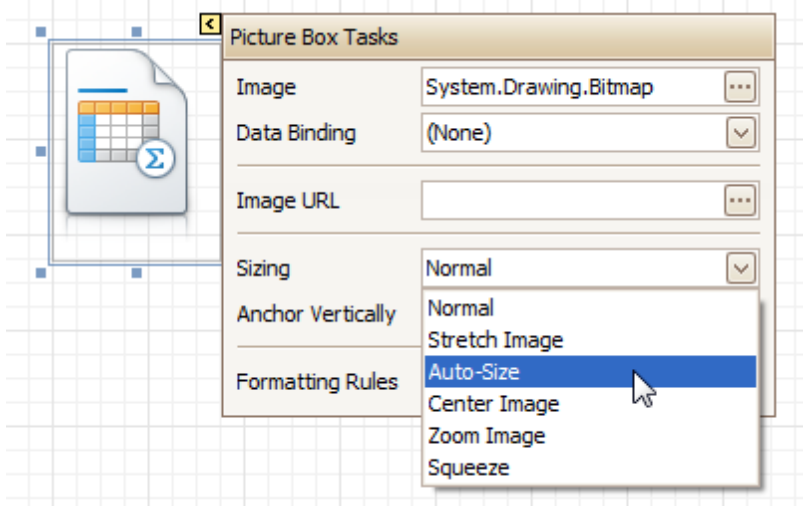
The image sizing settings are briefly described in the following table.

Mode	Description
Normal	The image is placed in the upper-left corner of the control. The image is clipped if it is larger than the Picture Box which contains it.
Stretch Image	The image within the control is stretched or shrunk to fit the size of a Picture Box.
Auto-Size	The Picture Box size is adjusted to that of the image it contains.
Center Image	The image is displayed in the center of the control. If the image is larger than the Picture Box, the outer edges are clipped.

Zoom Image	The image is sized proportionally (without clipping) for best fit into the control.
Squeeze	If the dimensions of a Picture Box exceed that of the image it contains, the image is centered and shown full-size. Otherwise, the image is resized to fit into the Picture Box's dimensions.

- **Visible**

  Specifies whether the control should be visible in print preview.

Data

- **(Data Bindings)**

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

- **Image**

  Specifies an image to display in the Picture Box control.

  When you click the ellipsis button, you will see the Open File dialog that enables you to specify the file to load. Then, this image is embedded into a report and saved within this report, so it is always available. Note that this increases the size of a <u>saved report definition</u>. If you want to save only the image path, and not the image itself, use the Image URL property instead.

- **Image URL**

  Specifies the URL of the image to display in the Picture Box control. It supports both absolute and relative paths. A relative path may be related to the Web site or to the current Web page. In the second case, the path to the image must start with the "~" symbol. Setting a relative path makes it easier to move the entire application to another directory on the server without having to update the code.

- **Tag**

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

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

Design

- **(Name)**

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

Layout

- **Location**

  Specifies the control's location, in <u>report measurement units</u>.

- **Size**

  Specifies the control's size, in <u>report measurement units</u>.

- **Snap Line Margin**

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

Navigation

- **Bookmark** and **Parent Bookmark**

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

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

selector, select the required data field.

- **Navigation URL** and **Navigation Target**

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

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

Panel

The **Panel** control is a container that frames separate report controls to allow them to be easily moved, copied and pasted, and visually unite them in the report's preview (with borders or a uniform color background).
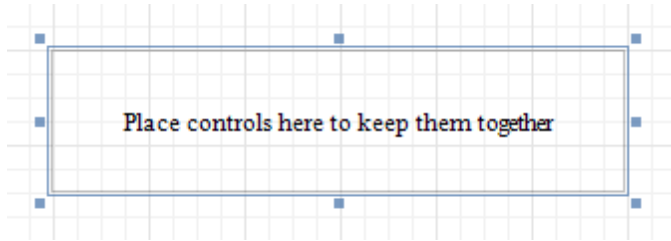
Currently, there are several limitations on Panel usage. One of them is that Panel cannot shrink, and therefore cannot suppress the white space that appears when the controls inside are shrunk or collapsed. Also, the Panel cannot cross [bands](#), as [Cross-band Line](#) and [Cross-band Box](#) can do.
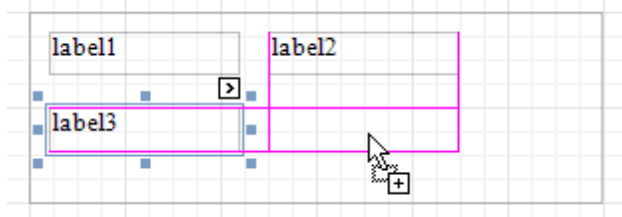
In the [Property Grid](#), the Panel's properties are divided into the following groups.

Appearance

- **Background Color**

  Specifies the background color for the control.

- **Borders**, **Border Color** and **Border Width**

  Specify border settings for the control.

- **Formatting Rules**

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

- **Padding**

  Specifies indent values which are used to render the contents of controls contained in a Panel.

- **Style Priority**

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

- **Styles**

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

Behavior

- **Anchor Vertically**

  Specifies the vertical anchoring style of the control, so that after page rendering it stays attached to the top control, bottom control, or both.

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

- **Can Grow**

  When this property is set to Yes, the control's height can be automatically increased, if required, to display the text. If there are other controls below the current control, they will be pushed down to

prevent them from overlapping. Note that if a control overlaps the growing Panel by even one pixel, it will not be pushed down by the growing Panel.

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

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

- **Visible**
  Specifies whether the control should be visible in print preview.

Data

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

- **Tag**
  This property allows you to add some additional information to the control; for example its id, by which it can then be accessible via scripts.

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

Design

- **(Name)**
  Determines a control's name, by which it can be accessed in the Report Explorer, Property Grid or via scripts.

Layout

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

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

- **Snap Line Margin**
  Specifies the margin (in report measurement units), which is to be preserved around the control when it is aligned using Snap Lines, or when other controls are aligned next to it.

- **Snap Line Padding**
  Specifies the padding (in report measurement units), which is to be preserved within the control when controls it contains are aligned using Snap Lines.

Navigation

- **Bookmark** and **Parent Bookmark**
  These properties are intended for the creation of a hierarchical structure within a report called a document map. For an explanation and help, refer to Add Bookmarks.

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

- **Navigation URL** and **Navigation Target**
  Use the Navigation URL property to specify a URL for web browser navigation when a user clicks the control. The web browser displays a page in a window or a frame as specified by the Navigation Target

property. Note that a URL should have an appropriate prefix (e.g. "http://"). You can create cross-references within the report by assigning the name of the target control to the Navigation URL property, and setting the Navigation Target property to "_self". For more information, refer to Create Hyperlinks.

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

Table

The **Table** control is designed to arrange information in a tabular layout. It may contain any number of Rows comprised of individual Cells. Both Rows and Cells can be selected and customized individually. In most aspects, a Cell is similar to a Label, but can also contain other controls (e.g. Picture Box or Rich Text).

When a Table is dropped onto a band from the Toolbox, it has one row and three columns. If you click and drag over several bands, the resulting table will be split by the bands into several tables. This creates a table header and the detail table with one mouse move.
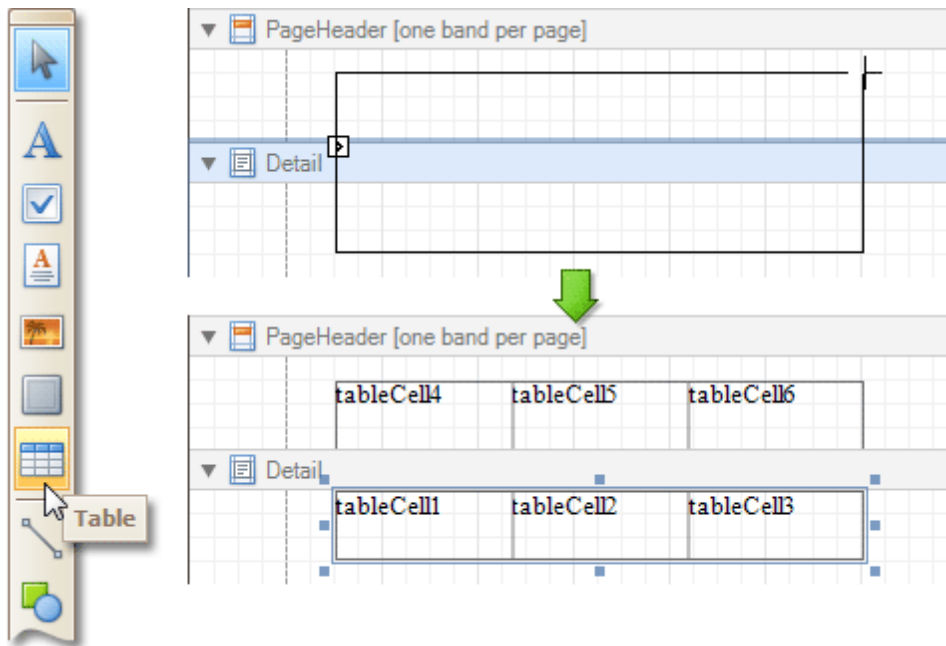
When you drag and drop an entire data table from the Field List, a Table with cells bound to the corresponding data fields is created automatically.

A table's elements are managed by using its Context Menu.
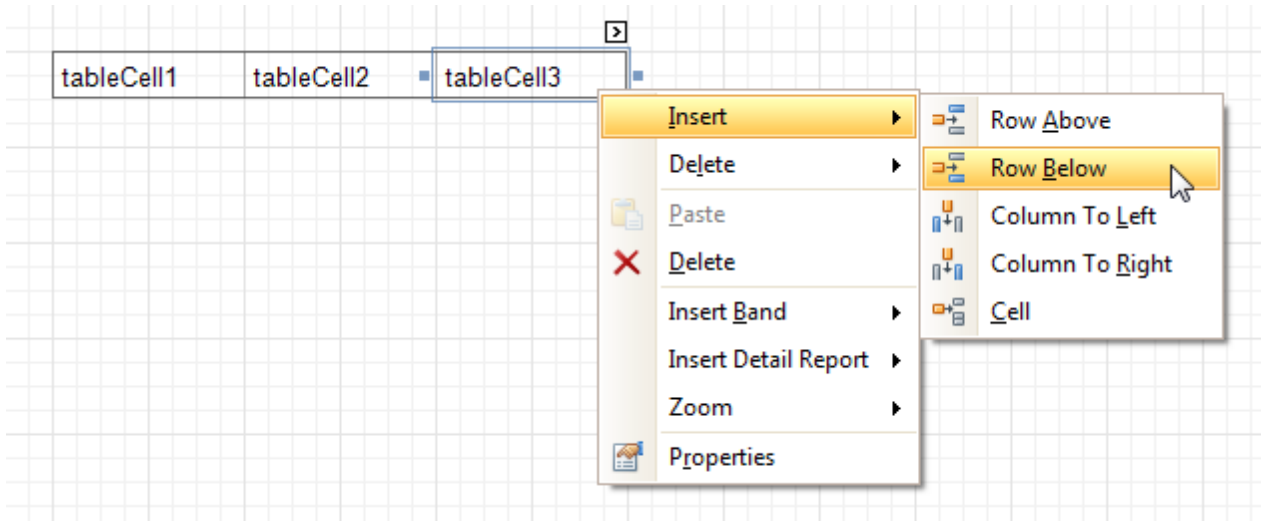
The whole Table, or its individual Row or Cell can be selected either in the Report Designer, the Report Explorer or the drop-down selector of the Property Grid.

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

Appearance

- **Background Color**

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

- **Borders**, **Border Color** and **Border Width**

  Specify border settings for the control.

- **Font**

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

- **Foreground Color**

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

- **Formatting Rules**

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

- **Padding**

  Specifies indent values which are used to render the contents of a Table's cells.

- **Style Priority**

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

- **Styles**

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

- **Text Alignment**

  Allows you to change the alignment of a Table's text. This option is also available in the Formatting Toolbar.

Behavior

- **Anchor Vertically**

  Specifies the vertical anchoring style of a Table, so that after page rendering it stays attached to the top control, bottom control, or both.

- **Keep Together**

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

- **Scripts**

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

- **Visible**

  Specifies whether the control should be visible in print preview.

Data

- **Tag**

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

Design

- **(Name)**

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

Layout

- **Location**

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

- **Size**

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

- **Snap Line Margin**

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

Navigation

- **Bookmark** and **Parent Bookmark**

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

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

Table Row

The **Table Row Control** represents a single row within a [Table](#).

This control is useful for changing the layout of the entire row. Although in this document, a Row is described as a separate control, in fact most of its properties are actually applied to the [Cells](#) contained within the selected row.

In the [Property Grid](#), the Table Row's properties are divided into the following groups.

Appearance

- **Background Color**

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

- **Borders**, **Border Color** and **Border Width**

  Specify border settings for the control.

- **Font**

  Specifies the font settings for the control. Some of these settings are available in the [Formatting Toolbar](#).

- **Foreground Color**

  Specifies the text color for the control. This option is also available in the [Formatting Toolbar](#) (**A**).

- **Formatting Rules**

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

- **Padding**

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

- **Style Priority**

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

- **Styles**

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

- **Text Alignment**

  Allows you to change the alignment of the control's text. This option is also available in the [Formatting Toolbar](#).

Behavior

- **Keep Together**

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

- **Scripts**

  This property contains events, which you can handle with the required scripts. For more information on scripting, refer to [Handle Events via Scripts](#).

- **Visible**

  Specifies whether the control should be visible in print preview.

Data

- **Tag**

  This property allows you to add some additional information to the control; for example its id, by which it can then be accessible via [scripts](#).

Design

- **(Name)**

  Determines a control's name, by which it can be accessed in the [Report Explorer](#), [Property Grid](#) or via [scripts](#).

Layout

- **Height**

  Specifies the Row's height, in [report measurement units](#).

- **Snap Line Margin**

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

Table Cell

The **Table Cell** control represents an individual cell within a <u>Table</u>.
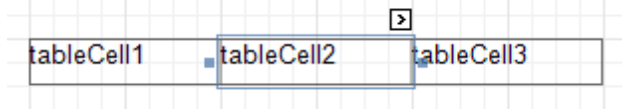
In general, the Table Cell control's properties are similar to the properties of the <u>Label</u> control.

In the <u>Property Grid</u>, the Table Cell's properties are divided into the following groups.

Appearance

- **Background Color**

Specifies the background color for the control. This option is also available in the <u>Formatting Toolbar</u> (⬚).

- **Borders**, **Border Color** and **Border Width**

Specify border settings for the control.

- **Font**

Specifies the font settings for the control. Some of these settings are available in the <u>Formatting Toolbar</u>.

- **Foreground Color**

Specifies the text color for the control. This option is also available in the <u>Formatting Toolbar</u> (<u>A</u>).

- **Formatting Rules**

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

- **Padding**

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

- **Style Priority**

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

- **Styles**

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

- **Text Alignment**

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

Behavior

- **Angle**

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

- **Can Grow**

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

- **Can Shrink**

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

- **Keep Together**

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

- **Multiline**

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

- **Process Duplicates**

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

- **Process Null Values**

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

- **Scripts**

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

- **Visible**

  Specifies whether the control should be visible in print preview.

- **Word Wrap**

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

Data

- **(Data Bindings)**

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

- **Lines**

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

- **Summary**

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

Note

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

- **Tag**

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

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

- **Text**

  Allows you to define a line of static text to be displayed. When a Cell is selected in the designer, you may simply start typing the text, and it will be automatically entered into the in-place editor.
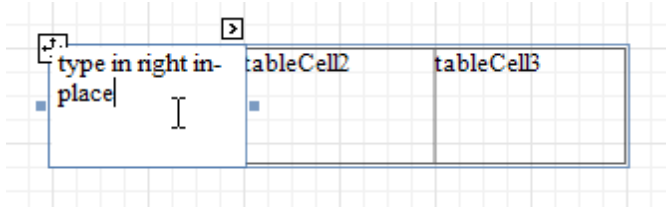
To type several lines of text, use the Lines property.

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

- **Xlsx Format String**

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

Design

- **(Name)**

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

Layout

- **Snap Line Margin**

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

- **Width**

Specifies the Cell's width, in report measurement units.

Navigation

- **Bookmark** and **Parent Bookmark**

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

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

- **Navigation URL** and **Navigation Target**

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

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

Line

The **Line** control draws a line of a specified direction, style, width and color. It can be used for both decoration and visual separation of a report's sections. The Line cannot cross bands, as opposed to the Cross-band Line control.
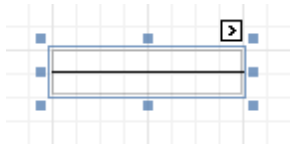
In the Property Grid, the Line's properties are divided into the following groups.

Appearance

- **Background Color**

  Specifies the background color for the control.

- **Borders**, **Border Color** and **Border Width**

  Specify border settings for the control.

- **Foreground Color**

  Specifies the Line's color.

- **Formatting Rules**

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

- **Line Direction**

  The line can be drawn vertically, horizontally and from one corner of the rectangle, representing the Line control, to another, across the rectangle. That is, Vertical, Horizontal, Slant and Back Slant types.

- **Line Style**

  You can select the solid (by default), dashed, dotted or mixed style for the line.

- **Line Width**

  Specifies the Line's width, in report measurement units.

- **Padding**

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

- **Style Priority**

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

- **Styles**

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

Behavior

- **Anchor Vertically**

  Specifies the vertical anchoring style of the control, so that after page rendering it stays attached to the top control, bottom control, or both.

- **Keep Together**

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

- **Scripts**

  This property contains events, which you can handle with the required scripts. For more information on

scripting, refer to Handle Events via Scripts.

- **Visible**

  Specifies whether the control should be visible in print preview.

Data

- **(Data Bindings)**

  If the current report is bound to data, this property allows you to bind the control's Tag property.

- **Tag**

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

Design

- **(Name)**

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

Layout

- **Location**

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

- **Size**

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

- **Snap Line Margin**

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

Shape

The **Shape** control allows you to embed simple graphic objects into your report. You can choose one of multiple predefined shapes (e.g. rectangles, ellipses, arrows, polygons, crosses and brackets of various kinds).
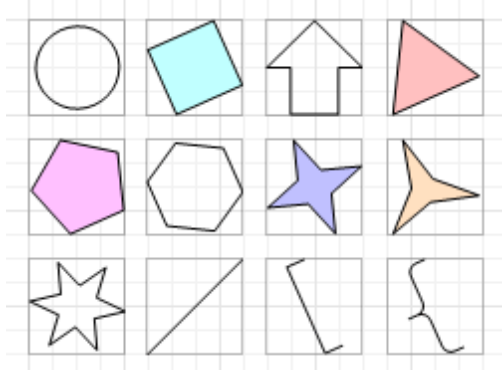
In the Property Grid, the Shape's properties are divided into the following groups.

Appearance

- **Background Color**

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

- **Borders**, **Border Color** and **Border Width**

  Specify border settings for the control.

- **Fill Color**

  Specifies the color to fill the contour of a Shape, if applicable. It is transparent by default.

- **Foreground Color**

  Determines the color of a Shape's contour. This option is also available in the Formatting Toolbar ( ).

- **Formatting Rules**

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

- **Line Width**

  Here you can set the width of a line used to draw the Shape, expressed in the measure units defined by the report's Measure Units property. To learn more about this, refer to Change Measurement Units for a Report.

- **Padding**

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

- **Style Priority**

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

- **Styles**

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

Behavior

- **Anchor Vertically**

  Specifies the vertical anchoring style of the control, so that after page rendering it stays attached to the top control, bottom control, or both.

- **Angle**

  The value in degrees specifies the rotation angle of a Shape. It indicates counterclockwise rotation.

You can hold CTRL while pressing the left mouse button to rotate a Shape within the control's borders.
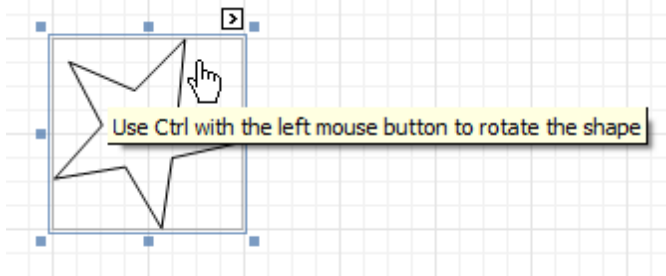
- **Scripts**

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

- **Shape**

Determines which of the various built-in shapes to use within the control.

A certain shape has its own unique set of properties. The following list is intended to give a brief overview of these special properties specific to a certain shape.

Property	Description	Supported by Shapes
Fillet	This property specifies how much a Shape's corners are rounded. It enables display of rounded boxes and triangles.	Arrows, Polygons, Stars and Cross
Number of Sides	This property allows you to set the number of sides.	Polygons
Count of Star Points	This property allows you to set the number of star points.	Stars
Concavity	Defines the level of inward-curve for the lines connecting the vertices of a Star. It may be an integer in the range of **0 – 100**.	Stars
Tip's Length	This property specifies the length of the Bracket's ends.	Bracket and Brace
Tail's Length	This property specifies the tail length of a Brace.	Brace

- **Stretch**

If the Shape is rotated to some degree (that is, its Angle property is not zero), you may turn on the Stretch property. The Shape image will be stretched to cover maximum space within the control's borders.

- **Visible**

Specifies a value indicating whether the current control should be printed (when set to Yes) or hidden (No) on report generation.

Data

- **(Data Bindings)**

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

- **Tag**

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

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

Design

- **(Name)**

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

Layout

- **Location**

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

- **Size**

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

- **Snap Line Margin**

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

Navigation

- **Bookmark** and **Parent Bookmark**

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

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

- **Navigation URL** and **Navigation Target**

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

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

Bar Code

The **Bar Code** control transforms its content into a bar code of the specified type. Multiple standard bar code symbologies are supported.

Note

The barcode quality can degrade when the report is exported to formats other than PDF. To ensure reliable barcode recognition, print the report directly from an application using the native printing methods. The **Module** and **Auto-Module** properties of a control should be used with care.

In the Property Grid, the Bar Code's properties are divided into the following groups.

Appearance

- **Alignment**

  Determines the alignment of the barcode image within the control. To define the text alignment, use the Text Alignment property.

- **Background Color**

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

- **Borders**, **Border Color** and **Border Width**

  Specify border settings for the control.

- **Font**

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

- **Foreground Color**

  Specifies the text and image color for the bar code. This option is also available in the Formatting Toolbar ( ).

- **Formatting Rules**

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

- **Padding**

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

- **Style Priority**

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

- **Styles**

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

- **Text Alignment**

  Allows you to change the alignment of the control's text. This option is also available in the Formatting Toolbar. To define the alignment of the barcode image, use the Alignment property.

Behavior

- **Anchor Vertically**

  Specifies the vertical anchoring style of the control, so that, after page rendering, it stays attached to the top control, bottom control, or both.

- **Auto-Module**

  When this property is set to Yes, the barcode image is stretched to fit the entire control's width. When

this option is turned off, this behavior is determined by the Module property.

- **Keep Together**

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

- **Module**

  Specifies the width of the narrowest bar or space in the barcode, in [report measurement units](#). You may set this property to Yes for automatic adjustment of its value, when the control is resized. Note that if the Module value is too low, the barcode output may become unreadable by a barcode scanner.

  When the Auto-Module property is set to No, there could be a situation when the barcode image generated with the current setting of Module property is larger than the control itself. In this case, the control displays a warning, as illustrated below.
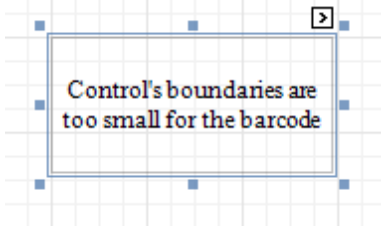
  So, increase the dimensions of the control, to avoid this.

- **Orientation**

  The barcode image within the control can be rotated. If you need this feature, use the Orientation property to specify one of four possible orientations (Normal, Upside Down, Rotate to the Left and Rotate to the Right) for an image within the control.

- **Scripts**

  This property contains events, which you can handle with the required scripts. For more information on scripting, refer to [Handle Events via Scripts](#).

- **Show Text**

  Determines whether to display the numerical value, or only the barcode within the control.

- **Symbology**

  The Symbology defines the mapping between barcode text and an image. Currently, the Bar Code control supports only linear 1D symbologies. They are listed in the following table:

Symbology	Description
Codabar	The Codabar is an old format that uses discrete, self-checking symbology, capable of encoding 16 different characters, plus an additional 4 start/stop characters. You should also specify the **Start and Stop Symbols** and **Wide Narrow Ratio** properties.
Code11	Code 11, also known as USD-8, was developed as a high-density numerical-only symbology. The symbology is discrete, and is able to encode the numbers 0 through to 9, the dash symbol (-), and start/stop characters.
Code128	Code 128 has been widely implemented. It is a high-density symbology which permits encoding messages of arbitrary lengths of any character of the ASCII character set. The symbology includes a checksum digit for verification. You should also specify the **Character Set**. The recommended setting is **Auto Charset**.

Code39	Code 39 is also known as "3 of 9 Code" and "USD-3". It can encode uppercase letters (A through Z), digits (0 through 9) and several special characters like the $ sign. The **Calculate a Checksum** and **Wide Narrow Ratio** (which should be in a range of 2.2 -3) properties can also be specified.
Code39Extended	This is an extension of Code 39, also known as "Full ASCII Code 39". It is capable of encoding all 128 ASCII characters. The **Calculate a Checksum** and **Wide Narrow Ratio** (which should be in a range of 2.2 -3) properties can be specified.
Code93	Code 93 was designed to supplement and improve Code 39. It is an alphanumeric, variable length symbology, providing higher reliability and density than Code 39. The **Calculate a Checksum** property can be specified.
Code93Extended	It enables encoding of all 128 ASCII characters using Code 93's "Full ASCII Mode". This is accomplished by using the ($), (/), (%), and (+) symbols as "shift" characters. The **Calculate a Checksum** property can be specified.
CodeMSI	MSI symbology, also known as Modified Plessey, is a low-density, numerical only symbology. To specify the checksum, use the **MSI Checksum** property. It can be set to None, Modulo 10 and Double Modulo 10.
EAN128	UCC/EAN-128 symbology has the newer name GS1-128. It is based on the Code128 standard, additionally specifying the Application Identifiers for data sections within the code. It includes best before dates, batch numbers, quantities, weights and other attributes. The **Character Set** property can be specified (**Auto Charset** is the recommended value). The **FNC1 Functional Character** property defines a symbol that is not included in a bar code when met in text, but used to generate the application identifiers. The **Human-Readable Text** property, when set to Yes, inserts parentheses into the text below the bar code for better readability.
EAN13	The EAN-13 barcode contains 13 digits, no letters or other characters. The first two or three digits represent the country. The leading zero actually signifies the USA, and UPC-A coding. The last digit is the checksum digit. The control calculates it automatically and it should not be present in the control's text string. So, make sure that the text for this symbology contains no more than 12 digits. If fewer digits are supplied, the string is padded with zeroes on the left.
EAN8	EAN-8 is a shortened version of the EAN-13 code. It includes a 2 or 3 digit country code, 4 of 5 data digits (depending on the length of the country code), and a checksum digit. The control calculates the checksum digit automatically and it should not be present in the control's text string. So, make sure that the text for this symbology contains no more than 7 digits. If fewer digits are supplied, the string is padded with zeroes on the left.

Industrial2of5	The Industrial (or non-interleaved) 2 of 5 code is a numerical, low-density symbology, based on two-out-of-five code. The **Calculate a Checksum** and **Wide Narrow Ratio** (which should be greater than or equal to 2.5) properties can be specified.
Interleaved2of5	The Interleaved 2 of 5 code is a higher-density numerical symbology, based on two-out-of-five code. The **Calculate a Checksum** and **Wide Narrow Ratio** (which should be greater than or equal to 2.5) properties can be specified.
Matrix2of5	A variant of non-interleaved 2 of 5 code. It is a numerical only symbology. The **Calculate a Checksum** and **Wide Narrow Ratio** (which should be greater than or equal to 2.5) properties can be specified.
PDF417	This Portable Data File symbology is used in a variety of applications, and can also be used to generate postage accepted by the United States Postal Service. It consists of a variable number of rows, each of which is like a small linear bar code. Among other options, the **Error Correction Level** specifies the amount of redundancy, to protect a barcode's legibility.
PostNet	This symbology is used by the United States Postal Service to assist in directing mail. The code usually contains the zip-code and delivery point number. Unlike most other barcodes, PostNet actually encodes data in the height of the bars.
UPCA	The UPC-A barcode contains 12 digits, no letters or other characters. The first digit is the prefix signifying the product type. The last digit is the "check digit". The check digit is calculated using the first eleven figures when the barcode is constructed. So, for a correct UPC-A, make sure that the text contains no more than 11 digits. If there are fewer than 11, the string is padded with zeroes on the left.
UPCE0	This symbology is a variation of UPC-A which allows for a more compact barcode by eliminating "extra" zeros. The first digit is always zero; the last digit is a checksum digit of the original UPC-A code. Not every UPC-A code can be transformed into UPC-E0. E.g., the control's text string "4210000526" is displayed by UPC-E0 symbology as "04252614" and represents the "042100005264" UPC-A code (check digit included).
UPCE1	This symbology is a variation of UPC-A, which allows for a more compact barcode by eliminating "extra" zeros. The first digit is always 1, and the last digit is a checksum digit of the original UPC-A code. Not every UPC-A code can be transformed into UPC-E1. E.g., the control's text string "4210000526" is displayed by UPC-E1 symbology as "14252611" and represents the "142100005261" UPC-A code (check digit included).
UPCSupplemental2	This is a supplemental two-digit barcode. Make sure that the control's text string contains two digits.
UPCSupplemental5	This is a supplemental five-digit barcode, usually used to indicate the suggested retail price of a book. Make sure that the control's text string contains five digits.

- **Visible**

  Specifies whether the control should be visible in print preview.

Data

- **(Data Bindings)**

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

- **Tag**

  This property allows you to add additional information to the control; for example its id, by which it can then be accessible via [scripts](#).

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

- **Text**

  Allows you to define a string to be encoded as a barcode. You can define whether to display this value within the control using the Show Text property. Note that when the control is selected in the designer, you may simply start typing the text, and it will be automatically entered into the in-place editor.
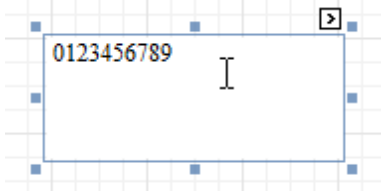
  If the content does not conform to the rules of a certain symbology (determined by the Symbology property), the control may display a warning, as in the picture below, or automatically correct the input string by padding it with zeroes or only allowing an acceptable number of characters to be displayed.

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

Design

- **(Name)**

  Determines a control's name, by which it can be accessed in the [Report Explorer](#), [Property Grid](#) or via [scripts](#).

Layout

- **Location**

  Specifies the control's location, in [report measurement units](#).

- **Size**

  Specifies the control's size, in [report measurement units](#).

- **Snap Line Margin**

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

Navigation

- **Bookmark** and **Parent Bookmark**

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

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

- **Navigation URL** and **Navigation Target**

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

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

Zip Code

The **Zip Code** control transforms its content into a zip code. The width of a zip code's segment is adjustable.
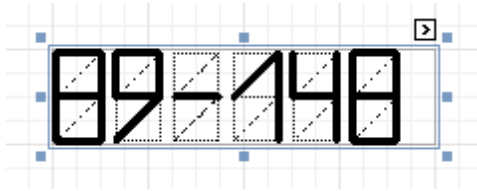
In the Property Grid, the Zip Code's properties are divided into the following groups.

Appearance

- **Background Color**

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

- **Borders**, **Border Color** and **Border Width**

  Specify border settings for the control.

- **Foreground Color**

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

- **Formatting Rules**

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

- **Padding**

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

- **Style Priority**

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

- **Styles**

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

Behavior

- **Anchor Vertically**

  Specifies the vertical anchoring style of the control, so that after page rendering it stays attached to the top control, bottom control, or both.

- **Keep Together**

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

- **Scripts**

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

- **Segment Width**

  This property setting specifies the width of the lines (in pixels) used to draw the numbers in the zip boxes of the control.

- **Visible**

  Specifies whether the control should be visible in print preview.

Data

- **(Data Bindings)**

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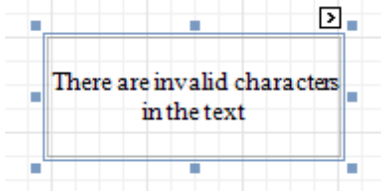
- **Tag**

  This property allows you to add some additional information to the control; for example its id, by which it can be then accessible via [scripts](#).

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

- **Text**

  The Text box should contain digits or dashes. Other characters are displayed as empty zip boxes.

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

Design

- **(Name)**

  Determines a control's name, by which it can be accessed in the [Report Explorer](#), [Property Grid](#) or via [scripts](#).

Layout

- **Location**

  Specifies the control's location, in [report measurement units](#).

- **Size**

  Specifies the control's size, in [report measurement units](#).

- **Snap Line Margin**

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

Navigation

- **Bookmark** and **Parent Bookmark**

  These properties are intended for the creation of a hierarchical structure within a report called a document map. For an explanation and help, refer to [Add Bookmarks](#).

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

- **Navigation URL** and **Navigation Target**

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

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

Chart

The **Chart** is a sophisticated control used to embed graphs into your report. It graphically represents a *series* of *points* using numerous 2D or 3D chart types. A Chart can be populated with points both *manually* (by specifying *arguments* and *values* for each point) and *dynamically* (by connecting it to the report's data source, or binding it to a separate one).

For more information about this control, refer to Charting.
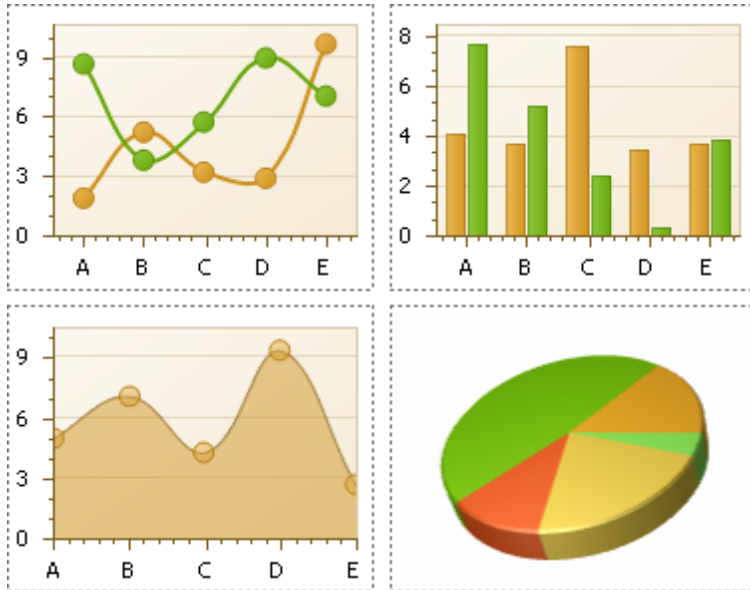
There are many available Chart types you can choose from. To name a few, these are Bar, Point, Line, Pie and Doughnut, Area, Radar and Polar, Range Bar, Gantt, Candle Stick and Stock charts.

A Chart control contains multiple elements (diagram, series, series points, axes, legend, titles, labels, strips, constant lines, etc.). When any of these elements is selected, the Property Grid shows only the properties which correspond to the selected item. Visual Chart elements which can be highlighted or selected, are described in Select Chart Elements.

The Chart control is data-aware in a different manner than the other report controls. Consider three common report scenarios:

1. Static data for a Chart's series is provided *manually*. It can be done using the Series Collection Editor invoked by the Chart's Series property. It allows you to manually define values and arguments for each series point.
2. Chart's series are created *automatically*, getting their data from the Chart's Data Source and dependent on the rules defined by the Series Template property. This approach is described in Chart with Dynamic Series.
3. Each series is created and customized manually and has a separate Data Source. This approach is described in Chart with Static Series.

You can customize a created chart using both the Property Grid and the Chart Wizard. To invoke the Chart Wizard, click a Chart's Smart Tag, and in the invoked actions list, click the **Run Wizard...** link.
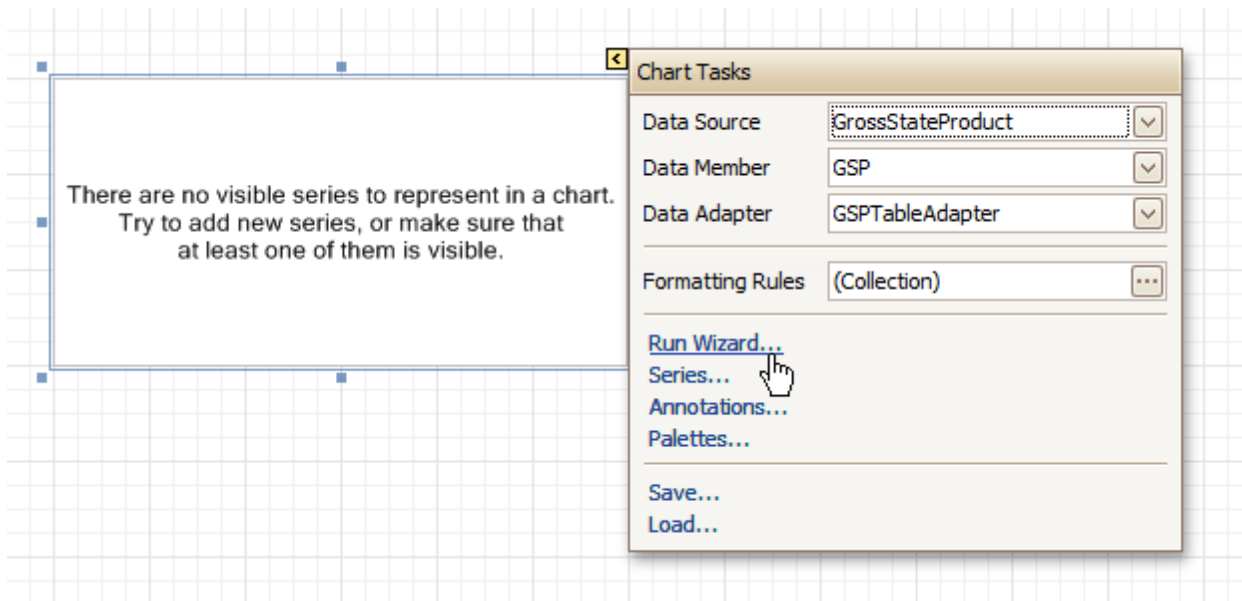
Then, the Chart Wizard will guide you through the whole process of customizing the Chart, from defining its view type to providing its data and customizing its appearance.

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

Appearance

- **Appearance Name**
  Allows you to choose one of the available appearances, to be used to draw the Chart's elements (Diagram, Axes, Legend, etc.).

- **Background Color**
  Specifies the background color for a Chart.

- **Background Image**
  Allows you to load a background image to a Chart (or define its URL), and also define whether it should be stretched to fit the entire Chart's area, or not.

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

- **Fill Style**
  Determines the fill style of a Chart's background (Empty, Solid, Gradient or Hatch) and define other fill options if required.

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

- **Image Type**
  Determines whether a Chart should be internally rendered as a metafile in a report (in this case the quality of the rendered image is always good, but in particular cases some details of the control may be lost), or as a bitmap (in this case the quality of the rendered image is sometimes poor, but it allows a control to be drawn more precisely).

- **Indicators Palette Name**
  Specifies the palette that is used to paint all indicators that exist in a Chart.

- **Padding**
  Specifies the internal space between the Chart's content (the diagram and legend) and its edge, in pixels.

- **Palette Name**
  Allows you to choose one from the built-in palettes to be used to draw a Chart's series.

- **Palette's Base Color Number**

  Allows you to define an integer index determining the base color for the palette defined by the Chart's Palette Name property.

- **Style Priority**

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

Behavior

- **Anchor Vertically**

  Specifies the vertical anchoring style of the control, so that after page rendering it stays attached to the top control, bottom control, or both.

- **Automatic Binding Settings Enabled**

  Specifies whether or not the Chart's data binding is automatically adjusted when its data source is a Pivot Grid.

- **Automatic Layout Settings Enabled**

  Specifies whether or not the Chart's layout is automatically adjusted when its data source is a Pivot Grid.

- **Empty Chart Text**

  Specifies the text to be shown in the Chart, when it has no data to display.

- **Scripts**

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

- **Small Chart Text**

  Specifies the text to be shown in the Chart, when it's too small to fit the diagram.

- **Visible**

  Specifies whether a Chart should be visible in print preview.

Data

- **(Data Bindings)**

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

- **Data Adapter**

  Determines a data adapter that will populate a Chart's data source which is assigned via the Data Source property. It is automatically set to the appropriate value, when the Data Member property is defined. To learn more on this, refer to Chart with Static Series.

- **Data Member**

  Determines the data source member which supplies data to a Chart. To learn more on this, refer to Chart with Static Series.

Note

Usually, it is not necessary to specify the Data Member property when binding a Chart to data. This property should only be set directly if the dataset contains more than one table.

- **Data Source**

  Determines a Chart's data source. To learn more on this, refer to Chart with Static Series.

- **Pivot Grid Data Source Options**

  Determines a Chart's data source. To learn more on this, refer to Chart with Static Series.

- **Series Data Member**

  Determines the name of the data field whose values are used to automatically generate and populate a Chart's series. To learn more on this, refer to Chart with Dynamic Series.

  When Chart binding is used to automatically generate series within a chart control based upon the data obtained from the associated data source (defined by the Data Source property), a rule needs to be defined that helps the Chart recognize the data records whose values are used to construct individual series objects. To do this, the Series Data Member property, which specifies the data field whose values

are taken into account when series objects are automatically created and populated, can be used.

Each automatically generated series gets its name from the data field specified by the Series Data Member property. For example, this name is used to identify a series within the chart control's legend. The names of all automatically generated series can be supplemented with the same prefix and postfix defined by the settings which are available via the Series Name Template property.

The template settings for the dynamically created series are defined by the specific properties which are available via the SeriesTemplate property of a Chart. In particular, the Argument Data Member and Value Data Members properties specify the data fields from which the arguments and data values of the series data points are obtained.

Note

Note that if the Series Data Member property is not set for a Chart, the Chart control can't automatically generate series even if the Argument Data Member and Value Data Members properties are defined.

- **Series Name Template**

  Determines the settings used to name data bound series defining the prefix and postfix texts for the names of series which are dynamically created as a result of binding a Chart to data (using the Data Source, Series Data Member, Argument Data Member and Value Data Members properties). The series names, to which these prefixes and postfixes are added, are taken by each series from the data field defined by the Series Data Member property. To learn more on this, refer to Chart with Dynamic Series.

Note

Note that the settings available via the Series Name Template property are not applied to the data bound series which are contained within the Series collection of a Chart.

- **Series Sorting**

  Allows you to define the sort mode of a Chart's series (None by default, Descending or Ascending).

- **Series Template**

  Allows you to customize a template for series which are created dynamically as a result of binding a Chart to data (via the Data Source and Series Data Member properties). The settings which are available via the Series Template property are common to all such data bound series. These settings allow you to provide centralized customization of all dynamically created data bound series. To learn more on using this property, refer to Chart with Dynamic Series.

  Note that the settings which are customized via the Series Template property don't apply to the series contained within the Series collection of a Chart.

- **Tag**

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

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

Design

- **(Name)**

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

Elements

- **Annotation Repository**

  Provides centralized access to all annotations that are present in the Chart.

- **Annotations**

  Provides access to the annotations collection of the Chart.

- **Diagram**

  Allows you to customize a Chart's diagram elements: main and secondary axes and panes.

  By default, a Chart is displayed in the Default Pane, but if necessary, you can display each Chart's series in a separate pane. To do this, click the Pane's ellipsis button, to invoke the Pane Collection Editor, allowing you to manage and customize panes. Then, select the required series within the Chart and set its View.Pane property to the required pane.

  Note that the diagram is null until no visible series exists in the Chart's collection. So, to access the diagram's options, you should create a series first.

- **Legend**

  Allows you to customize a Chart's legend, by defining such properties as text alignment and antialiasing, font style, background color or image, border options, markers' size and visibility, shadow options, etc.

- **Series**

  Invokes the Series Collection Editor, which allows you to manage and customize a Chart's series.

  Note that series which are bound to data at the level of a chart control (in particular, using the Data Source, Series Data Member and both the Argument Data Member and Value Data Members properties) are created dynamically, based upon the data obtained from the specified data source, and they are not presented within the Series collection. To perform a centralized customization of such series, use the settings which are available via the Series Template property.

- **Titles**

  Invokes the Chart Title Collection Editor, which allows you to manage and customize a Chart's titles.

Layout

- **Location**

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

- **Size**

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

- **Snap Line Margin**

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

Navigation

- **Bookmark** and **Parent Bookmark**

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

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

- **Navigation URL** and **Navigation Target**

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

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

Pivot Grid

The **Pivot Grid** control represents dynamic data (obtained from an underlying data source) in a cross-tabulated form to create cross-tab reports, similar to Pivot Tables in Microsoft Excel®. Column headers display unique values from one data field, and row headers - from another field. Each cell displays a summary for the corresponding row and column values. By specifying different data fields, you can see different totals. This allows you to get a compact layout for a complex data analysis.

The Pivot Grid has a designer which allows you to easily adjust its layout. It can be invoked using the control's Smart Tag.
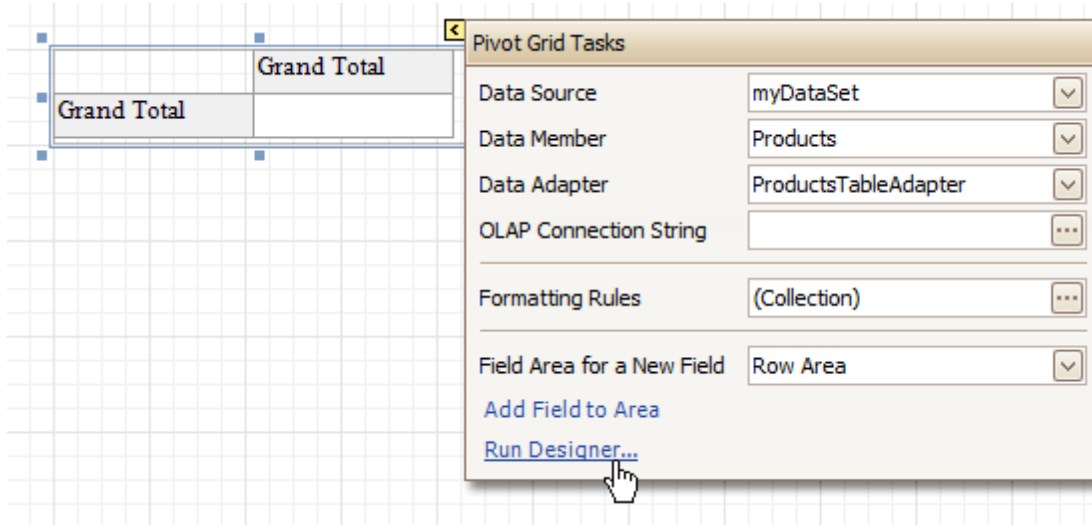
For more information on using this control, refer to Pivot Table.

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

Appearance

- **Appearance**

  Allows you to define the appearance properties (such as Background Color, Foreground Color, Font, etc.) for the Pivot Grid's elements (Cell, Field Value, Filter Separator, Header Group Line, etc.).

- **Formatting Rules**

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

- **Styles**

  Allows you to invoke the Styles Editor, which is intended to manage and customize the control's styles, which then can be assigned to the Pivot Grid's elements.

Behavior

- **Anchor Vertically**

  Specifies the vertical anchoring style of the Pivot Grid, so that after page rendering it stays attached to the top control, bottom control, or both.

- **Keep Together**

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

- **Scripts**

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

- **Visible**

  Specifies whether the control should be visible in print preview.

Data

- **Data Adapter**

  Determines a data adapter that will populate a Pivot Grid's data source which is assigned via the Data Source property. It is automatically set to the appropriate value, when the Data Member property is defined. To learn more on this, refer to <u>Cross-Tab Report</u>.

- **Data Member**

  Determines the data source member which supplies data to a Pivot Grid. To learn more on this, refer to <u>Cross-Tab Report</u>.

Note

Usually, it is not necessary to specify the Data Member property when binding a Pivot Grid to data. This property should only be set directly if the dataset contains more than one table.

- **Data Source**

  Determines a Pivot Grid's data source. To learn more on this, refer to <u>Cross-Tab Report</u>.

- **Fields**

  Invokes the Pivot Grid Field Collection Editor, allowing you to manage and fully customize a Pivot Grid's fields.

- **OLAP Connection String**

  Specifies a connection string to a cube in an Microsoft Analysis Services database. A sample connection string is shown below:

  ```
  OLAPConnectionString="Provider=msolap;Data Source=localhost;Initial
  Catalog=Adventure Works DW;Cube Name=Adventure Works;Query Timeout=100;"
  ```

  A connection string can be built via the Connection String Editor. To invoke it, click the ellipsis button for the OLAP Connection String property.

  To represent information from the bound cube, create specific Pivot Grid fields, and bind them to the required fields in the data source.

  If the OLAP Connection String property is set to a valid string, the value of the Data Source property is cleared. Setting the Data Source property to a valid object clears the OLAP Connection String property.

- **Prefilter**

  When this property is expanded in the <u>Property Grid</u>, you can set its Enabled property to Yes, and use the Criteria property to invoke the Pivot Grid Prefilter dialog.

  This dialog allows you to build complex filter criteria with an unlimited number of filter conditions, combined by logical operators. It provides a set of logical operators that significantly simplify the process of creating filters for text, numeric and date-time fields.

Note

The Prefilter is not supported in OLAP mode.

Design

- **(Name)**

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

Layout

- **Location**

  Specifies the control's location, in <u>report measurement units</u>.

- **Size**

  Specifies the control's size, in <u>report measurement units</u>.

- **Snap Line Margin**

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

Navigation

- **Bookmark** and **Parent Bookmark**

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

Options

- **Data Field Options**

  Allows you to customize the options which control the presentation of the data fields.

- **Data Options**

  Allows you to define whether a Pivot Grid's fields must be case sensitive or not.

- **Options Chart Data Source**

  Provides access to the options controlling the display of the Pivot Grid's data in a Chart.

- **Print Options**

  Allows you to customize the print options of a Pivot Grid.

- **View Options**

  Allows you to customize the Pivot Grid's display options.

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Page Info

The **Page Info** control is intended to <u>add page numbers and system information</u> (the current date and time or the current user name) into your report. As with many other controls, you can <u>format</u> this control's content.
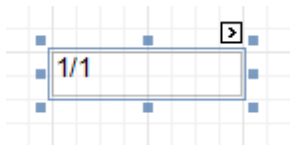
In the <u>Property Grid</u>, the Page Info control's properties are divided into the following groups.

Appearance

- **Background Color**
  Specifies the background color for the control. This option is also available in the <u>Formatting Toolbar</u> (🔲).

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

- **Font**
  Specifies the font settings for the control. Some of these settings are available in the <u>Formatting Toolbar</u>.

- **Foreground Color**
  Specifies the text color for the control. This option is also available in the <u>Formatting Toolbar</u> (<u>A</u>).

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

- **Padding**
  Specifies indent values which are used to render the contents of the control.

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

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

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

Behavior

- **Anchor Vertically**
  Specifies the vertical anchoring style of the control, so that after page rendering it stays attached to the top control, bottom control, or both.

- **Format**
  This property allows you to specify the format string for the text displayed in the control. When you click the ellipsis button, you will see the **Format String Editor** window that will select the predefined format or customize it as needed. For more information about this, refer to <u>Change Value Formatting of Report Elements</u>.

- **Page Information**
  You can select the type of information displayed in the control.

Type	Description

None	Displays an empty control.
Page Number	The string, specified by the **Format** property, is displayed. The **{0}** combination in the string is replaced with the current page number.
"Current of Total" Page Numbers	The string, specified by the **Format** property, is displayed. The **{0}** combination in the string is replaced with the current page number, the **{1}** combination - with a total number of pages in the report. To display the typical "Page 1 of 11" text, use the format string "Page {0} of {1}".
Page Number (Roman, Lowercase)	The current page number is displayed using Roman numerals in lowercase.
Page Number (Roman, Uppercase)	The current page number is displayed using Roman numerals in uppercase.
Current Date and Time	The string, specified by the **Format** property, is displayed. The **{0:[format]}** combination is replaced with the current system date and time formatted according to the **[format]** string. Use the **Format String Editor** of the **Format** property (see below) to select or construct the proper string.
User Name	The name of the current user, which was used to log into the operating system, is displayed.

- **Running Band**

  Specifies the name of the band, from which the Page Info gathers information. This allows you to implement page numbering independently for the report and its groups. For a tutorial on this, refer to Add Page Numbers for Groups.

  By default, this property is not set to any value, meaning that the entire report is being taken into account.

- **Scripts**

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

- **Start Page Number**

  Here you can set the start number for page numbering.

- **Visible**

  Specifies whether the control should be visible in print preview.

- **Word Wrap**

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

Data

- **(Data Bindings)**

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

- **Tag**

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

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

Design

- **(Name)**

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

Layout

- **Location**

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

- **Size**

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

- **Snap Line Margin**

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

Navigation

- **Bookmark** and **Parent Bookmark**

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

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

- **Navigation URL** and **Navigation Target**

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

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

Page Break

The **Page Break** control's sole purpose is to insert a page delimiter at any point within a report.

This control is visually represented by a short line, attached to the report's left margin, as shown in the following image.
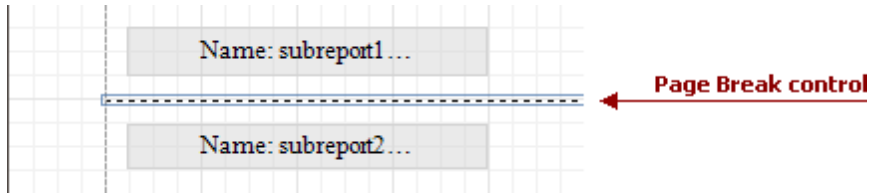
The Page Break control is useful when you need to insert a page break between controls within a band - for example, to divide subreports, so that the second subreport starts printing on a new page. Another example of the Page Break's use can be found in the following tutorial: Limit the Number of Records per Page.

Note

Note that when you need a page break before or after printing a certain band, you may set its **Page Break** property to **Before the Band** or **After the Band**, instead of using the Page Break control.

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

Appearance

- **Formatting Rules**

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

Behavior

- **Scripts**

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

- **Visible**

  Specifies whether the control should be visible in print preview.

Design

- **(Name)**

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

Layout

- **Location**

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

- **Snap Line Margin**

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

Cross-band Line

The **Cross-band Line** control allows you to draw a line through several bands. This can be useful if it is required to visually emphasize a section consisting of multiple band areas. In other aspects, it is similar to a regular Line.
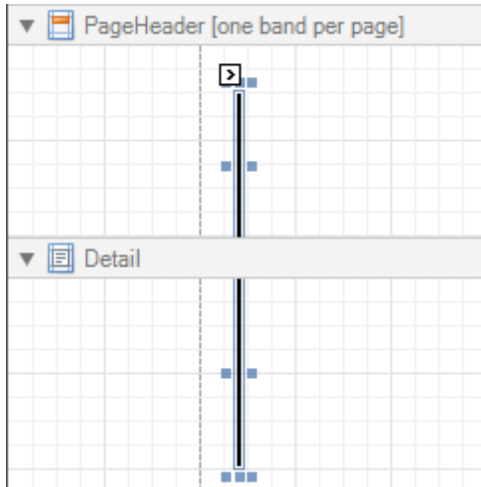
Another cross-band control available is the Cross-band Box.

In the Property Grid, the Cross-band Line control's properties are divided into the following groups.

Appearance

- **Foreground Color**
  Specifies the color of the control's line. This option is also available in the Formatting Toolbar (A).

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

- **Line Style**
  You can select a solid (by default), dashed, dotted or mixed style for the line.

Behavior

- **Anchor Vertically**
  Specifies the vertical anchoring style of the control, so that after page rendering it stays attached to the top control, bottom control, or both.

- **Visible**
  Specifies whether the control should be visible in print preview.

Data

- **Tag**
  This property allows you to add some additional information to the control; for example its id, by which it then can be accessible via scripts.

Design

- **(Name)**
  Determines a control's name, by which it can be accessed in the Report Explorer, Property Grid or via scripts.

Layout

- **End Band**
  Determines a band, in which the control finishes drawing.

- **End Point**

  Determines the end point (from a band's upper left corner) where the control finishes drawing.

- **Location**

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

- **Snap Line Margin**

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

- **Start Band**

  Determines a band, in which the control starts drawing.

- **Start Point**

  Determines the starting point (from a band's upper left corner) where the control starts drawing.

- **Width**

  Specifies the line's width in report measurement units.

Cross-band Box

The **Cross-band Box** control allows you to draw a rectangle through several bands. This can be useful if it is required to visually encompass a section consisting of multiple band areas.
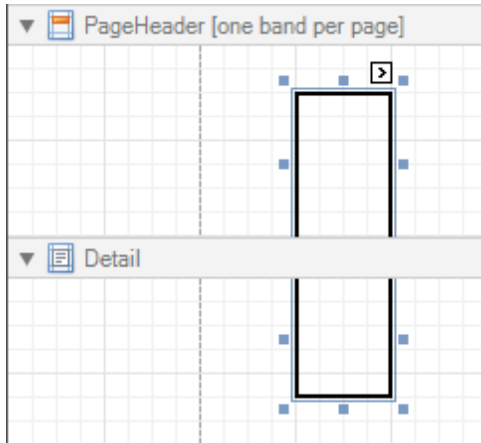
Another cross-band control available is the Cross-band Line.

In the Property Grid, the Cross-band Box control's properties are divided into the following groups.

Appearance

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

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

Behavior

- **Anchor Vertically**
  Specifies the vertical anchoring style of the control, so that after page rendering it stays attached to the top control, bottom control, or both.

- **Visible**
  Specifies whether the control should be visible in print preview.

Data

- **Tag**
  This property allows you to add some additional information to the control; for example its id, by which it can then be accessible via scripts.

Design

- **(Name)**
  Determines a control's name, by which it can be accessed in the Report Explorer, Property Grid or via scripts.

Layout

- **End Band**
  Determines a band, in which the control finishes drawing.

- **End Point**
  Determines the end point (from a band's upper left corner) where the control finishes drawing.

- **Location**

Specifies the control's location, in <u>report measurement units</u>.

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

- **Start Band**
  Determines a band, in which the control starts drawing.

- **Start Point**
  Determines the starting point (from a band's upper left corner) where the control starts drawing.

- **Width**
  Specifies the width of the Box, in <u>report measurement units</u>.

Subreport

The **Subreport** control allows you to include other reports in your current report.

There are several reasons for using subreports. The first one is to *reuse* reports. This can be of help if there is a particular report structure (*template*) that has to be included in all reports, and the report must have consistent appearance and functionality. A good example is a report header that contains the company information, logo, date, etc. The second reason for using subreports is creation of *master-detail* reports (or, *invoice* reports with hierarchically linked data).

However, for master-detail reports creation, another approach is recommended: using Detail Report bands.
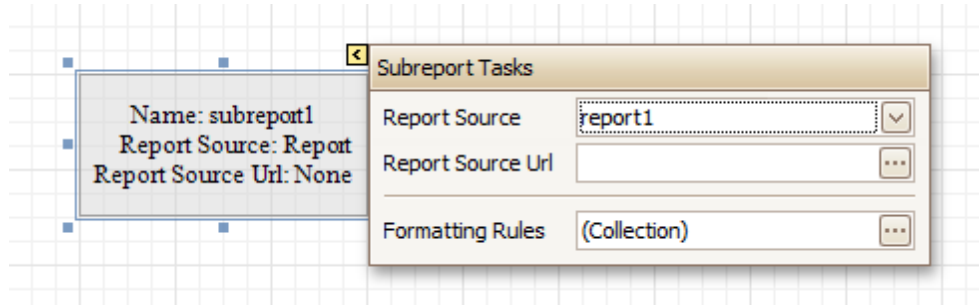
You can click a subreport, to open the report to which it is linked in a new Design Panel.

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

Appearance

- **Formatting Rules**

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

Behavior

- **Can Shrink**

  Determines whether a Subreport's height should be decreased if its contents don't completely fill the control.

  Use this property to specify whether the height of the Subreport control should be taken into account when generating a report. This may be required, because usually the mutual location of report controls is considered when generating a report document. But, as the Subreport control actually represents a report itself, the height of a Subreport normally should not be taken into account in the generated report document.

  Also, note that there is no Can Grow option for the Subreport control, as it always increases its height depending on its contents.

- **Scripts**

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

- **Visible**

  Specifies a value indicating whether the current control should be printed (when set to Yes) or hidden (No) on report generation.

Data

- **Report Source**

  Determines a report to be included as a subreport.

  If report classes of the application that invoked the Report Designer are compiled into one assembly, then they are available as items in this combo box.

- **Report Source Url**

  Defines an URL of a report definition file (*.REPX), to be used as a report source.

Design

- **(Name)**

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

Layout

- **Location**

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

- **Size**

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

  The Subreport isn't limited by the visible size of the control. The size of its actual content is taken into account when rendering the subreport on the page. Note that depending on its contents, its width is unlimited and its height is increased.

- **Snap Line Margin**

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

Report Bands

The documents in this section details the available kinds of report bands and their settings.

In the Report Designer, a report is built upon *bands* - sections of varied type and purpose, where report controls are contained. Bands are featured in the Designer Tab, solely to represent different sections of a report document (such as detail, report or page header, or footer). They allow you to select exactly where a control should be printed, and how many times.

Band Types

The following band types are available.

- Detail Band
- Groop Header and Footer
- Report Header and Footer
- Page Header and Footer
- Page Margin Bands
- Detail Report Band (for Master-Detail Reports)

Manage Bands

To manage bands in a report, click its Smart Tag, and in the invoked actions list, click the **Edit and Reorder Bands...** link.

Then, in the invoked **Report Editor** you can easily add, remove and reorder bands, and adjust their options.
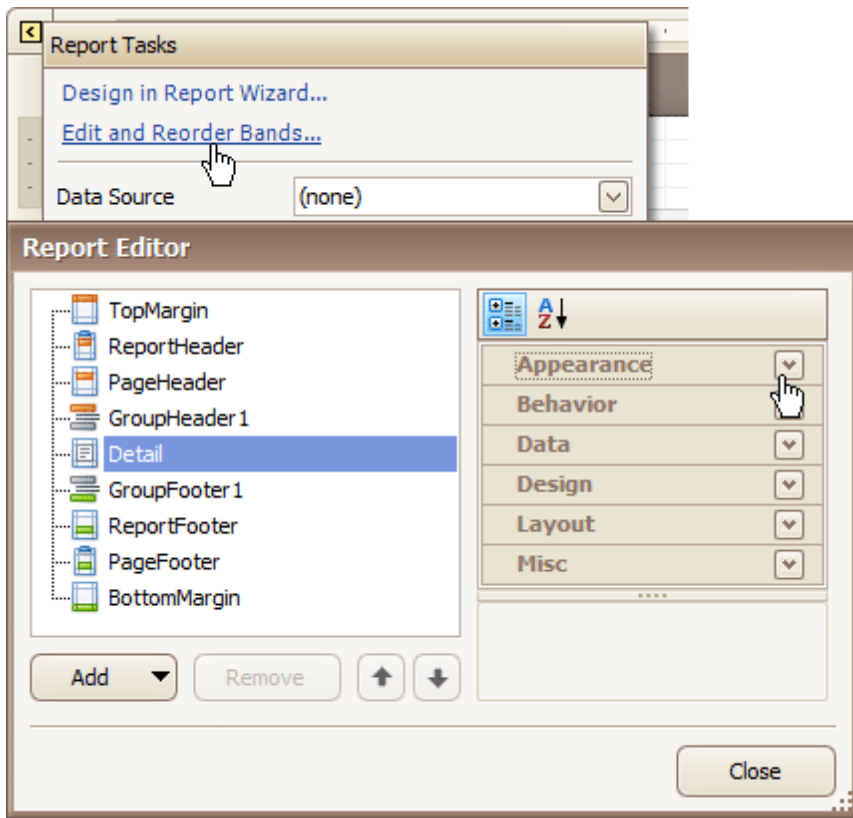
Alternatively, you can invoke the **Report Editor** via any band's Smart Tag.
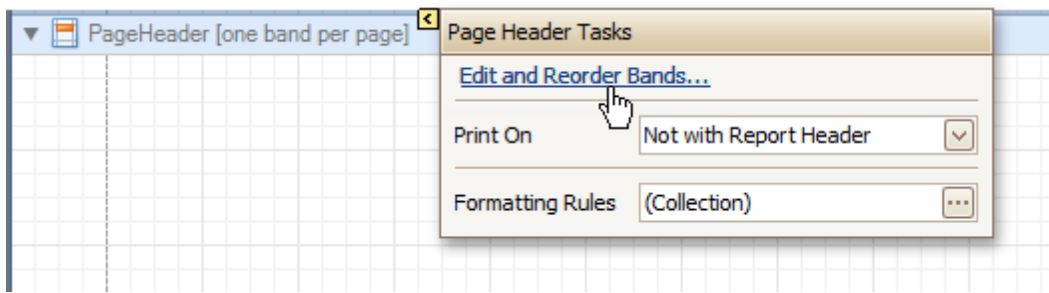
To quickly insert a band of any type (except for the Detail band, since it is required in a report), right-click anywhere on a report's surface, and in the invoked Context Menu, point to **Insert Band**, and choose the band type.

See Also

Detail Band

The **Detail** band is the central part of a report. Unlike other bands, it cannot be deleted - the present report structure includes the Detail band in its core. In a data-bound report, the contents of the Detail band are repeated for every data entry (e.g. if you're building a report listing, say, products, it will be rendered for each product in the database). And, if static data is also present in the Detail band, in the resulting report, it is repeated with each new entry.
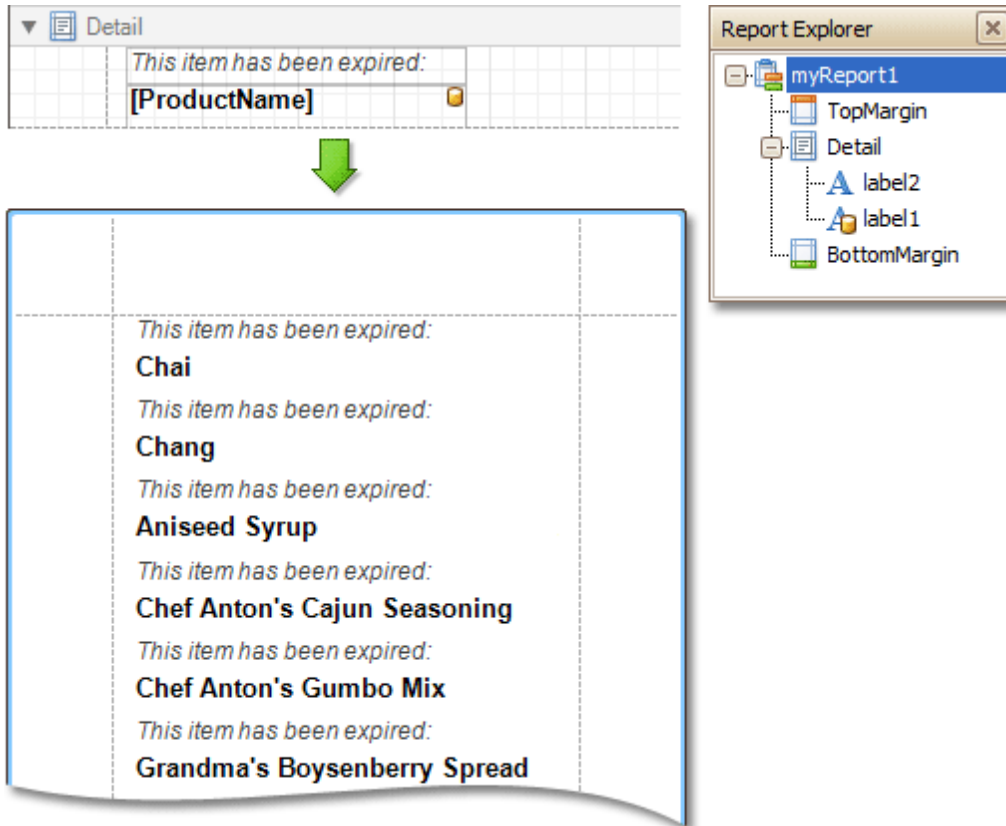
In the Property Grid, the Detail Band's properties are divided into the following groups.

Appearance

- **Background Color**
  Specifies the background color for the controls contained within the band. This option is also available in the Formatting Toolbar (icon).

- **Borders**, **Border Color** and **Border Width**
  Specify border settings for the controls contained within the band.

- **Font**
  Specifies the font settings for the controls contained within the band. Some of these settings are available in the Formatting Toolbar.

- **Foreground Color**
  Specifies the text color for the controls contained within the band. This option is also available in the Formatting Toolbar (icon).

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

- **Padding**
  Specifies indent values which are used to render the contents of the controls contained within the band.

- **Style Priority**

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

- **Styles**

  This property allows you to define odd and even styles for the controls contained within the band, as well as to assign an existing style to them (or a newly created one). For more information on style inheritance, refer to Understand Styles Concepts.

- **Text Alignment**

  Allows you to change the text alignment of the controls contained within the band. This option is also available in the Formatting Toolbar.

Behavior

- **Keep Together**

  As stated above, the detail band is printed repeatedly for every data entry. When the Keep Together option is on, the report engine tries to keep sequential detail band entries together. This option makes sense only when data is grouped or you're working with a master-detail report. In this case, the report engine tries to keep group contents on one page. If a group doesn't fit and it starts somewhere in the middle of a page, the report moves this group to a new page, thus trying to reduce the number of page breaks in continuous data.

- **Multi-Column Options**

  This property allows you to arrange the printout of the band's content in several columns. For more information, refer to Multi-Column Report.

- **Page Break**

  Use this property if the current report design requires that the detail section should be separated from previous sections or follow-ups. Specify the Before the Band or After the Band values to insert a page break before or after the current band. In many cases, this property may be used instead of the Page Break control.

- **Scripts**

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

- **Visible**

  Specifies whether the band should be visible in print preview.

Data

- **Sort Fields**

  Invokes the Group Field Collection Editor, which enables you to specify the fields for sorting the records within the band, the sorting order (Ascending/Descending) for each field and the order sequence. For more information, refer to Change or Apply Data Sorting to a Report.

- **Tag**

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

Design

- **(Name)**

  Determines a band's name, by which it can be accessed in the Report Explorer, Property Grid or via scripts.

Layout

- **Height**

  Specifies the band's height, in report measurement units.

- **Snap Line Padding**

  Specifies the padding (in report measurement units), which is to be preserved within the band when controls it contains are aligned using Snap Lines.

Misc

- **Keep Together with Detail Reports**

    When this option is on, the Detail Band will be always printed on the same page together with its child Detail Report Band, or multiple bands.

Grouping Bands

The **Group Header** and **Group Footer** bands are shown above and below each group. Usually, you don't need to manually manage these bands, as they are auto-created via the Group and Sort Panel. For more information, refer to Change or Apply Data Grouping to a Report and Change or Apply Data Sorting to a Report.

You may use the Group Header bands for grouping by multiple data fields in one of the following ways.

1. Add several Group Header bands. Specify one group field for each of these bands.
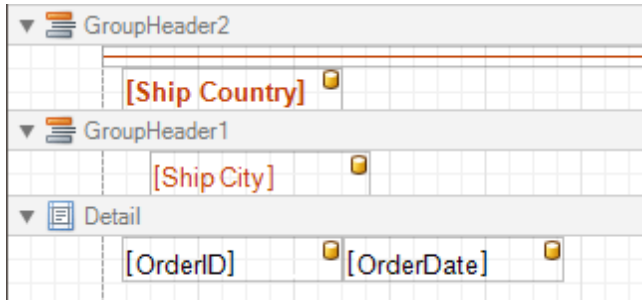
This results in nested grouping of the report's data.

2. Specify several group fields for the **Group Fields** property of the Group Header band. The data will be grouped by certain combinations of field values.

The Group Footer band is unnecessary without the corresponding Group Header band, to which its properties are similar. The Group Footer can be used to display group totals, or group page numbers.

In the Property Grid, the properties of both these bands are divided into the following groups.

Appearance

- **Background Color**

  Specifies the background color for the controls contained within the band. This option is also available in the Formatting Toolbar ( ).

- **Borders**, **Border Color** and **Border Width**

  Specify border settings for the controls contained within the band.

- **Font**

  Specifies the font settings for the controls contained within the band. Some of these settings are available in the Formatting Toolbar.

- **Foreground Color**

  Specifies the text color for the controls contained within the band. This option is also available in the Formatting Toolbar ( ).

- **Formatting Rules**

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

- **Padding**

  Specifies indent values which are used to render the contents of the controls contained within the bands.

- **Style Priority**

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

- **Styles**

  This property allows you to define odd and even styles for the controls contained within the bands, as well as to assign an existing style to them (or a newly created one). For more information on style inheritance, refer to Understand Styles Concepts.

- **Text Alignment**

Allows you to change the text alignment of the controls contained within the bands. This option is also available in the Formatting Toolbar.

Behavior

- **Group Fields**

This property is available for the Group Header band only. It invokes the Group Field Collection Editor, allowing you to add and remove grouping fields, define data fields to be used as grouping criteria and the grouping order (ascending or descending).

In most scenarios, it's quick and practical to use the Group and Sort Panel, rather than manually adjust the band's group fields collection. However, this is the only way to assign multiple group fields to a single Group Header.

- **Group Union**

Determines whether group rows can be printed on different pages (in this case both Group Union and Group Footer Band.Group Union are set to None), or the entire group will be printed on a single page (if the Group Union is set to Whole Page).

Also, if a group can be split across pages, but you don't want a Group Header to be printed on a page if there is no data row below it (in case a group starts at the bottom of the page and there is enough room for only a Group Header), you may set the Group Union to With First Detail. In this case, if a Group Header is alone on a page, it will be moved to the beginning of the next page.

It is the same for the Group Footer. If you don't want it to be printed alone on a page, you may set its Group Union to With Last Detail, and the last group row from the previous page will be moved to the next page to be printed together with a Group Footer.

This property is quickly accessible via the band's Smart Tag.

- **Keep Together**

When this option is on, the report tries to fit the band contents entirely on one page, not allowing it to split across several pages. In general, if the contents are too large to fit on a single page, then the band is started on a new page, and continues on the following page.

- **Level**

Specifies the nesting level of a group band. The lower the level number, the closer the group band is to the Detail band. The numeration starts at zero. It is the parameter that identifies the Group Header / Group Footer band pairs.

This option is auto-defined when using the Group and Sort Panel.

- **Page Break**

Use this property if the current report design requires that the band's section should be separated from previous sections or follow-ups. Specify the Before the Band or After the Band values to insert a page break before or after the current band. In many cases, this property may be used instead of the Page Break control.

- **Print at Bottom**

This property is available for the Group Footer band only. It determines whether the band should be printed at the bottom of a page, or immediately after the last group's details.

If a report contains several Group Footers with their Print at Bottom properties set to different values, then the outer Group Footer has the highest priority.

This feature is helpful when the Page Break property of the Group Header band is set to After the Band. In this instance each group starts a new page, and the Group Footer has two distinct places to reside - after the last row, or at the bottom of the page.

- **Repeat Every Page**

This property improves the readability of reports with group contents that are several pages long. Without a repeated group header at the top of the page, the report may be difficult to read.

This property is also accessible via the band's Smart Tag.

- **Scripts**

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

- **Sorting Summary**

This property is available for the Group Header band only. It allows you to sort groups by a summary function result.

- **Visible**

Specifies whether the bands should be visible in print preview.

Data

- **Tag**

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

Design

- **(Name)**

Determines a band's name, by which it can be accessed in the Report Explorer, Property Grid or via scripts.

Layout

- **Height**

Specifies the band's height, in report units.

- **Snap Line Padding**

Specifies the padding (in report measurement units), which is to be preserved within the band when controls it contains are aligned using Snap Lines.

Report Header and Footer

The **Report Header** and **Report Footer** are the only types of report bands rendered once per report.
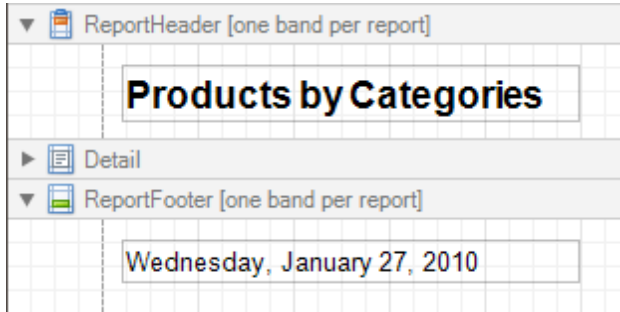
The **Report Header** is the first band of a report on the first page (not counting margins as they are "out-of-page" zones). The Report Header also precedes the Page Header, making it the best place to display the report's name, company logo, date of creation and user name, etc.

And, if you plan to add a Chart that visualizes the report's data, place this control onto this band.

The **Report Footer** finalizes the informative part of the report. It is placed before the Page Footer and Bottom Margin on the report's last page. Use the Report Footer for report grand totals or conclusions.

In the Property Grid, the properties of these bands are divided into the following groups.

Appearance

- **Background Color**
  Specifies the background color for the controls contained within the band. This option is also available in the Formatting Toolbar (⚏).

- **Borders**, **Border Color** and **Border Width**
  Specify border settings for the controls contained within the band.

- **Font**
  Specifies the font settings for the controls contained within the band. Some of these settings are available in the Formatting Toolbar.

- **Foreground Color**
  Specifies the text color for the controls contained within the band. This option is also available in the Formatting Toolbar (▲).

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

- **Padding**
  Specifies indent values which are used to render the contents of the controls contained within the bands.

- **Style Priority**
  Allows you to define the priority of various style elements (such as background color, border color, etc.). For more information on style inheritance, refer to Understand Styles Concepts.

- **Styles**
  This property allows you to define odd and even styles for the controls contained within the bands, as well as to assign an existing style to them (or a newly created one). For more information on style inheritance, refer to Understand Styles Concepts.

- **Text Alignment**
  Allows you to change the text alignment of the controls contained within the bands. This option is also available in the Formatting Toolbar.

Behavior

- **Keep Together**

  When this option is on, the report tries to fit the band contents entirely on one page, not allowing it to split across several pages. In general, if the contents are too large to fit on a single page, then the band is started on a new page, and continues on the following page.

- **Page Break**

  Use this property if the current report design requires that the band's section should be separated from previous sections or follow-ups. Specify the Before the Band or After the Band values to insert a page break before or after the current band. In many cases, this property may be used instead of the Page Break control.

- **Print at Bottom**

  This property is available for the Report Footer band only, and determines whether this band should be printed at the bottom of the last page, or immediately after the last report's details. The Report Footer has priority over the Group Footer's Print at Bottom property, so the Group Footer can never be placed after the Report Footer.

- **Scripts**

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

- **Visible**

  Specifies whether the band should be visible in print preview.

Data

- **Tag**

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

Design

- **(Name)**

  Determines a band's name, by which it can be accessed in the Report Explorer, Property Grid or via scripts.

Layout

- **Height**

 Specifies the band's height, in report units.

- **Snap Line Padding**

  Specifies the padding (in report measurement units), which is to be preserved within the band when controls it contains are aligned using Snap Lines.

Page Header and Footer

The **Page Header** and **Page Footer** bands are located at the top and bottom of every page in a report.

The Page Header/Footer bands are the best place for information that should be printed on every page. For example, use them to display the header of a table which is continued from the previous page (an example can be found at the Table Report tutorial).

Note

If you insert page break right after the Report Header (by setting its **Page Break** to **After the Band**), the Page Footer and Page Header bands will not be printed on the first page.

In the Property Grid, the properties of these bands are divided into the following groups.

Appearance

- **Background Color**

  Specifies the background color for the controls contained within the band. This option is also available in the Formatting Toolbar ( ).

- **Borders**, **Border Color** and **Border Width**

  Specify border settings for the controls contained within the band.

- **Font**

  Specifies the font settings for the controls contained within the band. Some of these settings are available in the Formatting Toolbar.

- **Foreground Color**

  Specifies the text color for the controls contained within the band. This option is also available in the Formatting Toolbar ( ).

- **Formatting Rules**

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

- **Padding**

  Specifies indent values which are used to render the contents of the controls contained within the bands.

- **Style Priority**

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

- **Styles**

  This property allows you to define odd and even styles for the controls contained within the bands, as well as to assign an existing style to them (or a newly created one). For more information on style inheritance, refer to Understand Styles Concepts.

- **Text Alignment**

  Allows you to change the text alignment of the controls contained within the bands. This option is also available in the Formatting Toolbar.

Behavior

- **Scripts**

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

- **Visible**

Specifies whether the band should be visible in print preview.

Data

- **Tag**

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

Design

- **(Name)**

Determines a band's name, by which it can be accessed in the Report Explorer, Property Grid or via scripts.

Layout

- **Height**

Specifies the band's height, in report units.

- **Snap Line Padding**

Specifies the padding (in report measurement units), which is to be preserved within the band when controls it contains are aligned using Snap Lines.

Misc

- **Print On**

This property specifies whether the band should be printed on the same page with Report Header and Report Footer bands.

Page Margin Bands

The **Top Margin** and **Bottom Margin** bands represent the top and bottom page margins. Unlike other bands, they are not accompanied by strips displaying their titles in the Design Panel.
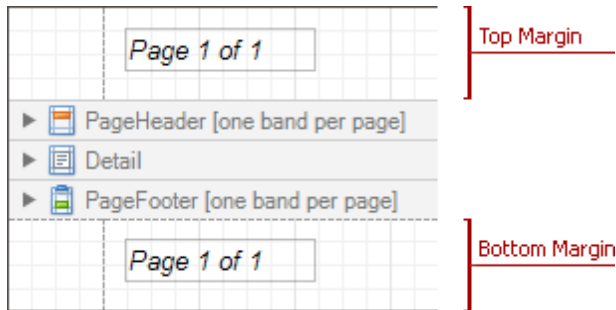
They are intended for displaying page numbers, or some sort of supplementary information (e.g. current system time or the user name).

In the Property Grid, the properties of these bands are divided into the following groups.

Appearance

- **Background Color**

  Specifies the background color for the controls contained within the band. This option is also available in the Formatting Toolbar ([icon]).

- **Borders**, **Border Color** and **Border Width**

  Specify border settings for the controls contained within the band.

- **Font**

  Specifies the font settings for the controls contained within the band. Some of these settings are available in the Formatting Toolbar.

- **Foreground Color**

  Specifies the text color for the controls contained within the band. This option is also available in the Formatting Toolbar ([icon]).

- **Formatting Rules**

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

- **Padding**

  Specifies indent values which are used to render the contents of the the controls contained within the bands.

- **Style Priority**

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

- **Styles**

  This property allows you to define odd and even styles for the controls contained within the bands, as well as to assign an existing style to them (or a newly created one). For more information on style inheritance, refer to Understand Styles Concepts.

- **Text Alignment**

  Allows you to change the text alignment of the controls contained within the bands. This option is also available in the Formatting Toolbar.

Behavior

- **Scripts**

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

- **Visible**

  Specifies whether the band should be visible in print preview.

Data

- **Tag**

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

Design

- **(Name)**

  Determines a band's name, by which it can be accessed in the Report Explorer, Property Grid or via scripts.

Layout

- **Height**

  Specifies the band's height, in report units.

Note

Note that this property is tied to the report's Margins.Top (or Margins.Bottom) property, so that changing this property's value will cause the appropriate Margin value to be changed, and vice versa.

- **Snap Line Padding**

  Specifies the padding (in report measurement units), which is to be preserved within the band when controls it contains are aligned using Snap Lines.

Detail Report Band for Master-Detail Reports

The **Detail Report** band is a type of band used to incorporate one report into another in master-detail reports. It is quite different from the Detail band, since it holds the whole *detail* report in a *master-detail* report layout, and therefore can contain other types of bands within it.
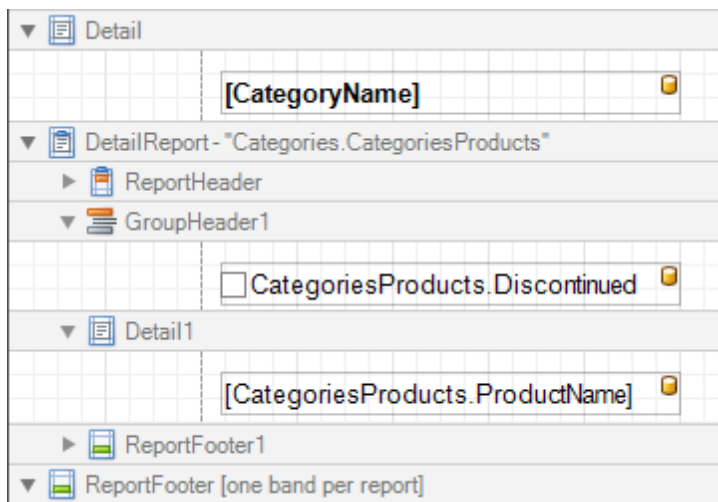
There can be an unlimited number of Detail Report bands nested inside one another.
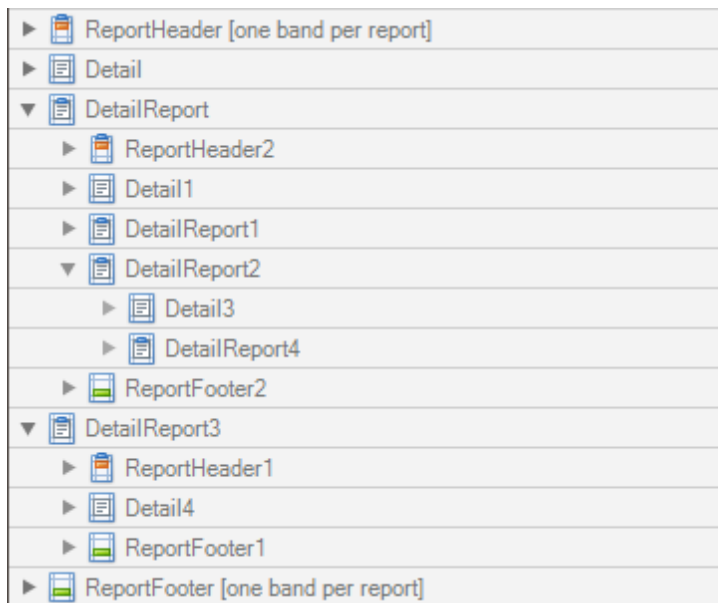
To add a Detail Report band, use the Context Menu. If the bound data source contains a *data relationship*, the submenu will contain an item with its name. Otherwise, add an unbound detail report and specify its data binding options later.
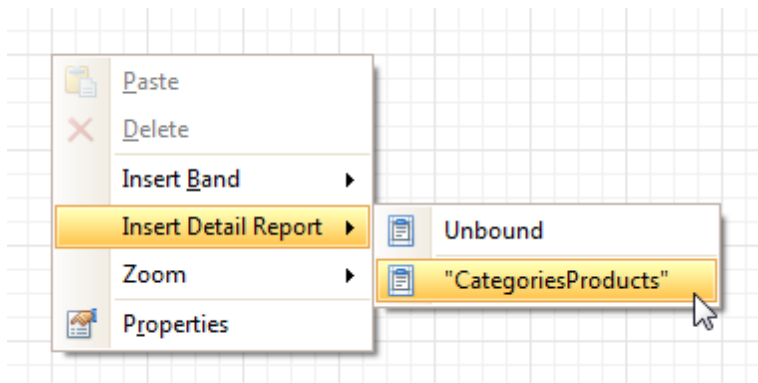
In the Property Grid, the properties of this band are divided into the following groups.

Appearance

- **Background Color**

  Specifies the background color for the controls contained within the band. This option is also available in the Formatting Toolbar (⬛).

- **Borders**, **Border Color** and **Border Width**

  Specify border settings for the controls contained within the band.

- **Font**

  Specifies the font settings for the controls contained within the band. Some of these settings are available in the Formatting Toolbar.

- **Foreground Color**

  Specifies the text color for the controls contained within the band. This option is also available in the Formatting Toolbar (A).

- **Formatting Rules**

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

- **Padding**

  Specifies indent values which are used to render the contents of the controls contained within the band.

- **Text Alignment**

  Allows you to change the text alignment of the controls contained within the band. This option is also available in the Formatting Toolbar.

Behavior

- **Level**

  Specifies the order of several Detail Report Band objects in a report. It allows the reordering of different Detail Report Bands at the same level of master-detail relationships. The lower the level number, the closer the band is to the Detail band.

- **Page Break**

  Use this property if the current report design requires that the band's section should be separated from previous sections or follow-ups. Specify the Before the Band or After the Band values to insert a page break before or after the current band. In many cases, this property may be used instead of the Page Break control.

- **Print when Data Source is Empty**

  Specifies whether the band should be printed if its data source is empty.

- **Scripts**

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

- **Visible**

Specifies whether the band should be visible in print preview.

Data

- **Data Adapter**

  Determines a Detail Report Band's data adapter that provides the detail data for the report. To learn more, refer to Master-Detail Report (Detail Report Bands).

- **Data Member**

  Determines a name of the data relationship established within the bound data source. To learn more, refer to Master-Detail Report (Detail Report Bands).

- **Data Source**

  Determines the data source that provides the detail data for the report. If this property isn't defined, the detail report gets data from the master report's data source. To learn more, refer to Master-Detail Report (Detail Report Bands).

- **Filter String**

  Allows you to invoke the Filter String Editor, which is intended to easily define a filtering condition for a detail report's data. For more information, refer to Change or Apply Data Filtering to a Report.

- **Tag**

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

- **XML Data Path**

  Allows you to define a path to the data contained in an XML file. The data contained in the file will then be used as the Detail Report Band's data source.

  In this case, the Data Member property will specify the bound list in the XML data source.

Note

Note that a detail report uses the XML Data Path property value only when the Data Source property is set to None. The XML Data Path property has a lower priority than the Data Source property.

Design

- **(Name)**

  Determines a band's name, by which it can be accessed in the Report Explorer, Property Grid or via scripts .

- **Detail Print Count**

  Specifies how many times the Detail band should be printed when a data source is defined for the subreport, and it is not empty.

- **Detail Print Count when Data Source is Empty**

  Specifies how many times the Detail band should be printed when no data source is defined for the subreport.

Structure

- **Bands**

 Allows you to invoke the Report Editor intended to manage and customize the report's bands.

Report Settings

This document details settings that affect the entire report.

A **Report** is the main object in the Report Designer, as it's the document being edited. A typical report is shown in the following image (as it looks in the Designer Tab).
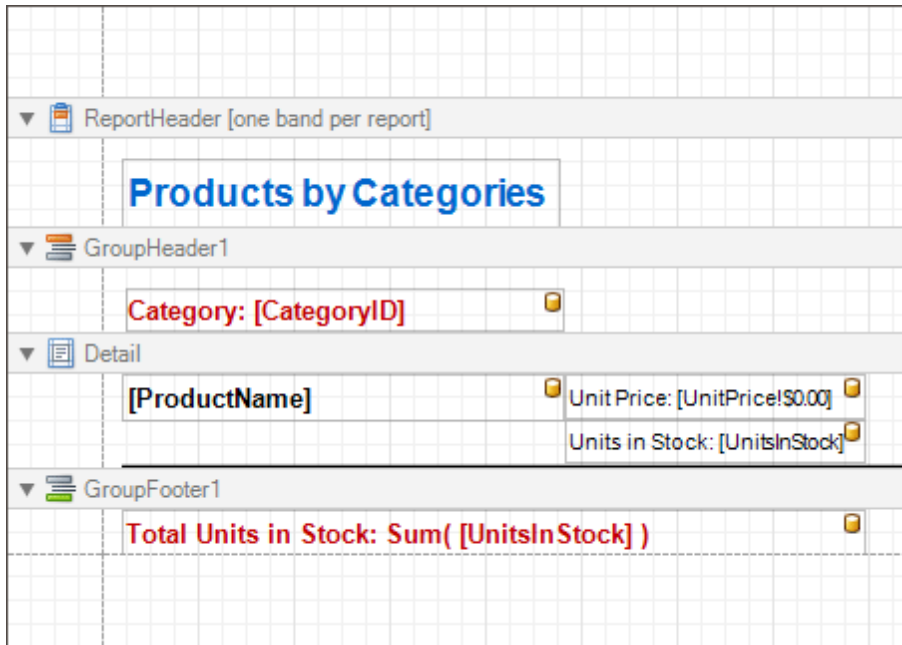
While the main report's properties can be accessed via the report's Smart Tag, the complete settings list is available in the Property Grid, where all the report's properties are divided into the following groups.

Appearance

- **Background Color**

  Specifies the background color of report elements. This option is also available in the Formatting Toolbar ( ).

- **Borders**, **Border Color** and **Border Width**

  Specify border settings for report elements.

- **Font**

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

- **Foreground Color**

  Specifies the text color for report elements. This option is also available in the Formatting Toolbar ( ).

- **Formatting Rule Sheet**

  Invokes the Formatting Rule Sheet Editor, allowing you to manage and customize formatting rules, which can then be defined for a report's bands and controls. To learn more on this, refer to Conditionally Change a Control's Appearance.

- **Formatting Rules**

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

- **Padding**

  Specifies indent values used to render the contents of a report's controls.

- **Page Color**

  Specifies the fill color for report pages. This color may be changed later in a report's Print Preview.

- **Style Sheet**

Allows you to invoke the Styles Editor, which is intended to manage and customize a report's style sheets. To learn more on this, refer to <u>Store and Restore Style Sheets</u>.

- **Style Sheet's Path**

Allows you to define a path to the style sheet contained in a report style sheet file (.REPSS). To learn more on this, refer to <u>Store and Restore Style Sheets</u>.

- **Text Alignment**

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

- **Watermark**

Allows you to customize a report's watermark options. For more information about this, refer to <u>Create or Modify Watermarks of a Report</u>.

Behavior

- **Display Name**

Specifies the name of the report, which is displayed in its Design Panel tab.

- **Export Options**

Allows you to set the export options for each file type (PDF, XLS, TXT, etc.). These options vary with the file type.

- **Measure Units**

Allows you to <u>choose units of measurement</u> for a report (one hundredth of an inch or a tenth of a millimeter).

- **Print when Data Source is Empty**

- **Script Language**

Allows you to choose the programming language to be used in <u>scripting</u> (C#, Visual Basic or J#).

- **Script References**

Allows you to manage the collection of strings that represent the paths to the assemblies used by the <u>scripts</u> in a report.

- **Scripts**

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

- **Show Margin Lines in Preview**

The page margin lines are dotted lines shown on the currently selected page in the report's preview. Use this property to change the visibility of these lines.

- **Vertical Content Splitting**

Allows you to choose whether report controls outside the right page margin should be split across pages, or moved in their entirety to the next page. This option is useful for the <u>cross-tab reports</u> creation.

- **Visible**

Specifies whether a report should be created in print preview.

Data

- **Calculated Fields**

Allows you to access a report's <u>calculated fields</u> collection.

- **Data Adapter**

Determines a report's data adapter used to populate the report's data source. It is created automatically when the Data Member property is defined. To learn more about this, refer to <u>Bind a Report to Data</u>.

- **Data Member**

Determines a specific list in a report's Data Source, for which the Report Designer objects display data. To learn more about this, refer to Bind a Report to Data.

Note

Usually, it is not necessary to specify the Data Member property when binding a report to data. This property should only be set directly if the dataset contains more than one table.

- **Data Source**

  Determines a report's data source. To learn more about this, refer to Bind a Report to Data.

- **Filter String**

  Allows you to invoke the Filter String Editor, which is intended to easily define a filtering condition for a report's data. For more information about this, refer to Change or Apply Data Filtering to a Report.

- **Tag**

  This property allows you to add some additional information to a report; for example its id, by which it can then be accessible via scripts.

- **XML Data Path**

  Allows you to define a path to data contained in an external XML file. The data contained in the file will then be used as a report's data source.

Design

- **(Name)**

  Determines a report's name, by which it can be accessed in the Report Explorer, Property Grid or via scripts.

- **Data Source's Schema**

  Allows you to load an XML/XSD file, containing the schema of a report's data source.

- **Designer Options**

  Contains the following options.

  - Show Designer's Hints
  The designer hints are intended to provide tooltips, both describing the purpose of certain report elements for inexperienced users, and describing the reasons and solutions for possible export or printing warnings. By using this property, these hints can be turned on or off.
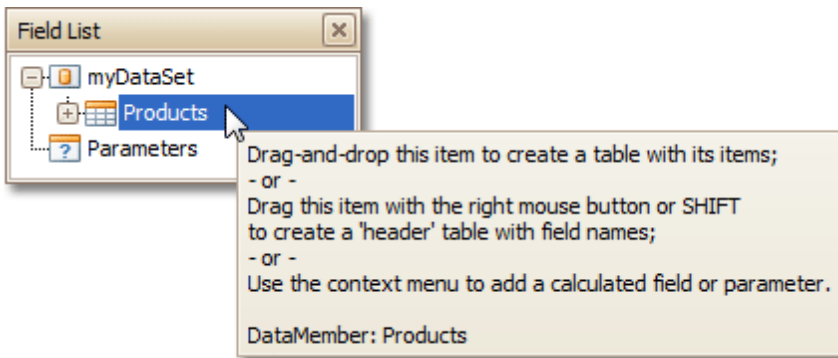
  - Show Export Warnings
  The export warnings appear when report controls are overlapped, indicating that a report layout may be incorrect when exporting to certain table-based formats (such as XLS, HTML or RTF).
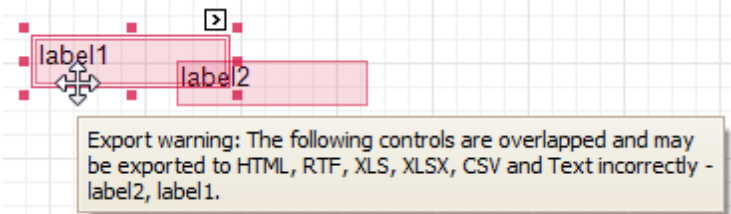
  - Show Printing Warnings
  The printing warnings are intended to notify you that some of a report's controls are placed outside the right page margin, so that the report contains unnecessary pages.
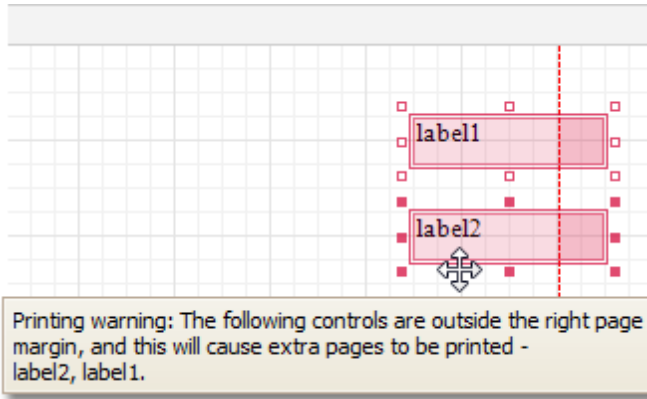
- **Detail Print Count**

  Specifies how many times the [Detail](#) band should be printed when a data source is defined for the report, and it is not empty.

- **Detail Print Count when Data Source is Empty**

  Specifies how many times the Detail band should be printed when no data source is defined for the report.

- **Draw the Grid**

  Determines whether to draw the [Snap Grid](#) when a report is being designed.

- **Snap Grid Size**

  Determines the size of the [Snap Grid](#)'s cells.

- **Snap to Grid**

  Specifies whether to snap controls to the Snap Grid when they are [located or resized](#).

- **Snapping Mode**

  Specifies the snapping mode for report elements when they are being [aligned using the Snap Grid](#).

Navigation

- **Bookmark**

  Allows you to define how a report is named in the document map when the [report bookmarks](#) are implemented. By default, it is synchronized with the report's Name property.

Page Settings

- **Landscape**

  Determines whether the page orientation is Landscape (when set to Yes) or Portrait (when set to No).

- **Margins**

  Determines the width of a report's margins (measured in [report units](#)).

📝**Note**

Note that the report's Margins.Top and Margins.Bottom properties are tied to the Height property of the [Page Margin Bands](#). So, changing these properties' values will cause changing the appropriate bands' Height value as well, and vice versa.

- **Page Height**

  Specifies page height, in [report units](#). This property can only be set if the Paper Kind property is set to Custom.

- **Page Width**

  Specifies page width, in [report units](#). This property can only be set if the Paper Kind property is set to Custom.

- **Paper Kind**

  Determines the type of paper for a report. Setting this property to any value different from Custom will prevent the Page Height, Page Width and Paper Name properties from being customized.

📝**Note**

If the Paper Kind property is set to Custom, then the printer paper will be selected according to the Paper Name

property's value. In this case, it's also necessary to set the Page Width and Page Height properties to the corresponding values of the paper selected.

- **Paper Name**

   Determines the name of the custom paper used in the printer that will print the document.

   The Paper Name property's value is in effect only when the Paper Kind property is set to Custom. If the printer on which a document is printed doesn't support the paper type specified by the Paper Name property's value, then it will default to the Letter paper size. In this case, it's also necessary to set the Page Width and Page Height properties to the corresponding values of the selected paper.

- **Printer Name**

   Determines the name of the printer to use when printing a report. Note that the specified printer should be installed on the machine.

- **Using Settings of the Default Printer**

   Specifies which of the default printer's settings should be used when printing a report.

Parameters

- **Parameters**

   Allows you to access a report's [parameters](#) collection.

- **Request Parameters**

   Allows you to define whether it's required to request the values of a report's [parameters](#) when generating the report.

Printing

- **Show Print Margin Warnings**

   Specifies whether an error message is shown when the page margins are set outside the printable area.
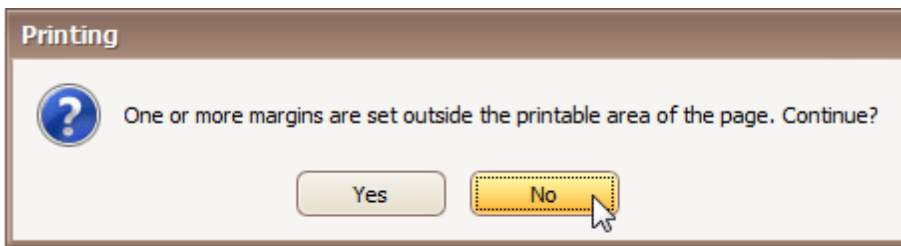
- **Show Print Status Dialog**

   Specifies whether a print status dialog is shown when a document is being printed.
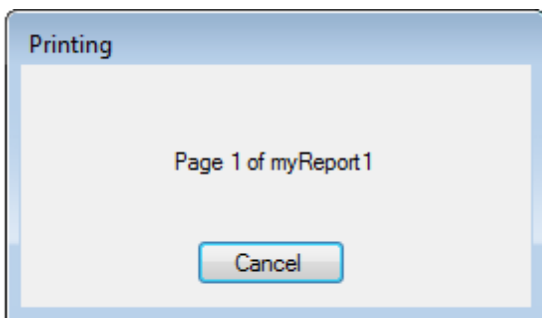
Structure

- **Bands**

   Allows you to invoke the Report Editor, intended to manage and customize a report's [bands](#).

Report Wizard

The **Report Wizard** is a tool that allows you to easily create reports based on built-in templates. Using this tool, you can do the following.

- **Create a new report from scratch**
  In the main menu, select **File** | **New with Wizard...** or press CTRL+W.

- **Edit an existing report**
  Click the report's Smart Tag and in the invoked actions list, click the **Design in Report Wizard...** context link.
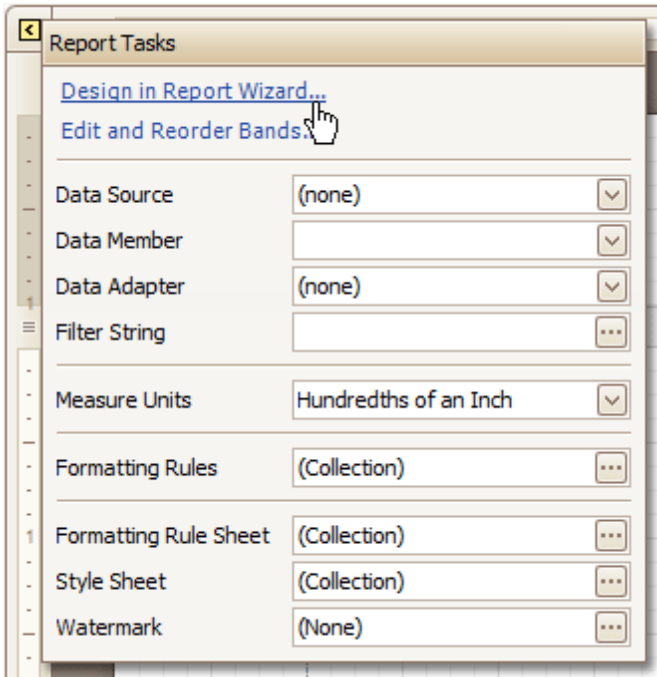
Note

In this case, data binding steps are omitted, since a report already has a bound data source. Note that the initial report layout will be lost after completing the wizard.

The Report Wizard provides two different ways to setup your report.

- Standard Report Wizard
  Using this wizard, you can easily create a banded report displaying data in a tabular format. While setting up your report, you'll be able to group data, add totals to your report, apply one of the predefined report styles, etc.

- Label Report Wizard
  This wizard is useful if you need to print out labels. In this case, you're likely to purchase label paper that meets your particular requirements. Depending on paper supplier and label type, your report will need to generate labels with a specific size and location within paper sheets.

  With the Label Report Wizard, you won't have to adjust these settings manually, since we provide a wide choice of paper suppliers and their products. Simply choose your paper type, and the report is adjusted automatically. After completing the wizard, you get an empty report that clearly indicates label boundaries, and of course, properly positions labels within paper sheets.

Standard Report Wizard

The **Report Wizard** allows you to create reports of two kinds - **standard reports** and label reports. To create a standard report, invoke the Report Wizard dialog and choose the **Standard Report** option on the **Welcome** page.

After completing the Standard Report wizard, you will get a tabular banded report. Depending on how many wizard steps you complete (you don't necessarily have to go through all the pages), you can apply data grouping, display totals, select one of the predefined style sheets, etc.

The following image shows a sample report created using the Standard Report Wizard.

Use the links below to learn more about every step of the Standard Report wizard.

Note

Depending on the method you used to invoke the Wizard, you may be creating an entirely new report or modifying an existing one. Creating reports from scratch requires database connection knowledge. In these cases, it's better if you contact your application administrator or vendor for assistance with the first three steps of the wizard. If you're modifying an existing report, you'll skip these initial data binding steps and start with Step 4 - Choose Columns to Display in Your Report.
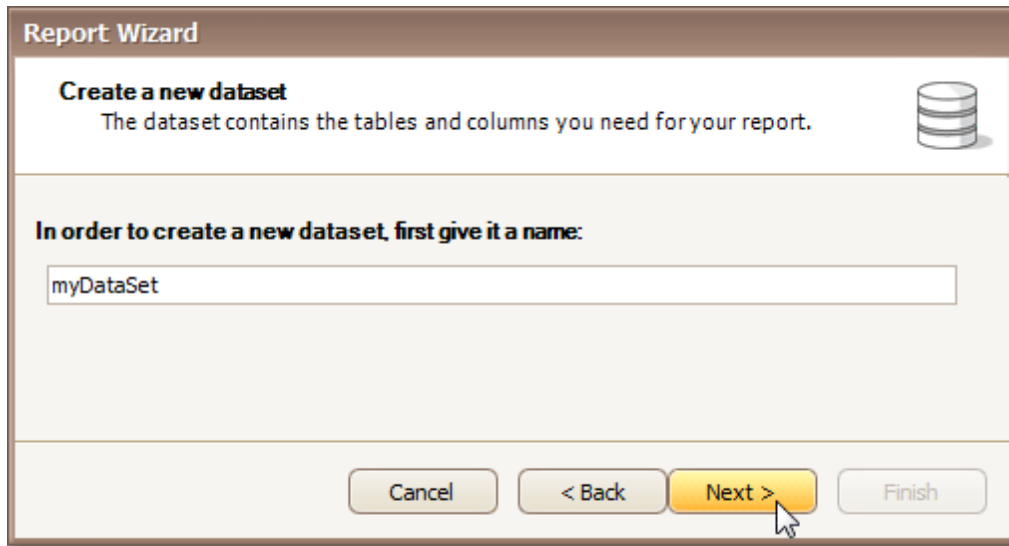
- Step 1 - Enter a Dataset Name
- Step 2 - Choose a Data Connection
- Step 3 - Choose the Table or View
- Step 4 - Choose Columns to Display in Your Report
- Step 5 - Add Grouping Levels
- Step 6 - Summary Options
- Step 7 - Choose Report Layout
- Step 8 - Choose Report Style
- Step 9 - Enter a Report Title

Step 1 - Enter a Dataset Name

Note

This wizard step appears only if you're creating a new report from scratch. In this instance, familiarity with database connections is required, so we recommend that you contact your application administrator or vendor for assistance. If you're modifying an existing report, you will skip this step and start with Step 4 - Choose Columns to Display in Your Report.

The first page is intended to set the dataset name, which will be used in the report (e.g. in the Field List).

Report Wizard

Create a new dataset
The dataset contains the tables and columns you need for your report.

In order to create a new dataset, first give it a name:

myDataSet

| Cancel | < Back | Next > | Finish |

Note

When specifying the dataset name you need to avoid special characters, such as: whitespace, !, #, %, $, ^, &, *, (,), -, +, =, \, /, etc.

Then, click **Next** to proceed to Step 2 to select a data connection.

Step 2 - Choose a Data Connection

Note

This wizard step appears only if you're creating a new report from scratch. In this instance, familiarity with database connections is required, so we recommend that you contact your application administrator or vendor for assistance. If you're modifying an existing report, you will skip this step and start with Step 4 - Choose Columns to Display in Your Report.

Purpose

Connect to a database whose data will be shown in your report.

Page Interface

On this page you can either select one of the data connections currently available in the drop-down list, or create a new one. To create a new connection, click the **New Connection...** button. It invokes a Data Link Properties dialog, allowing you to set up a new database connection.

Once a connection has been set up, click **Next** to proceed to Step 3 - Choose the Table or View.

Step 3 - Choose the Table or View

Note

This wizard step appears only if you're creating a new report from scratch. In this instance, familiarity with database connections is required, so we recommend that you contact your application administrator or vendor for assistance. If you're modifying an existing report, you will skip this step and start with Step 4 - Choose Columns to Display in Your Report.

Purpose

Select a table or a view, whose data will be used in your report.

Page Interface

The list on the left-hand side shows all tables and views available in the database you specified in the previous wizard step. To select a required item, click it and then press the right arrow (**>**) button.
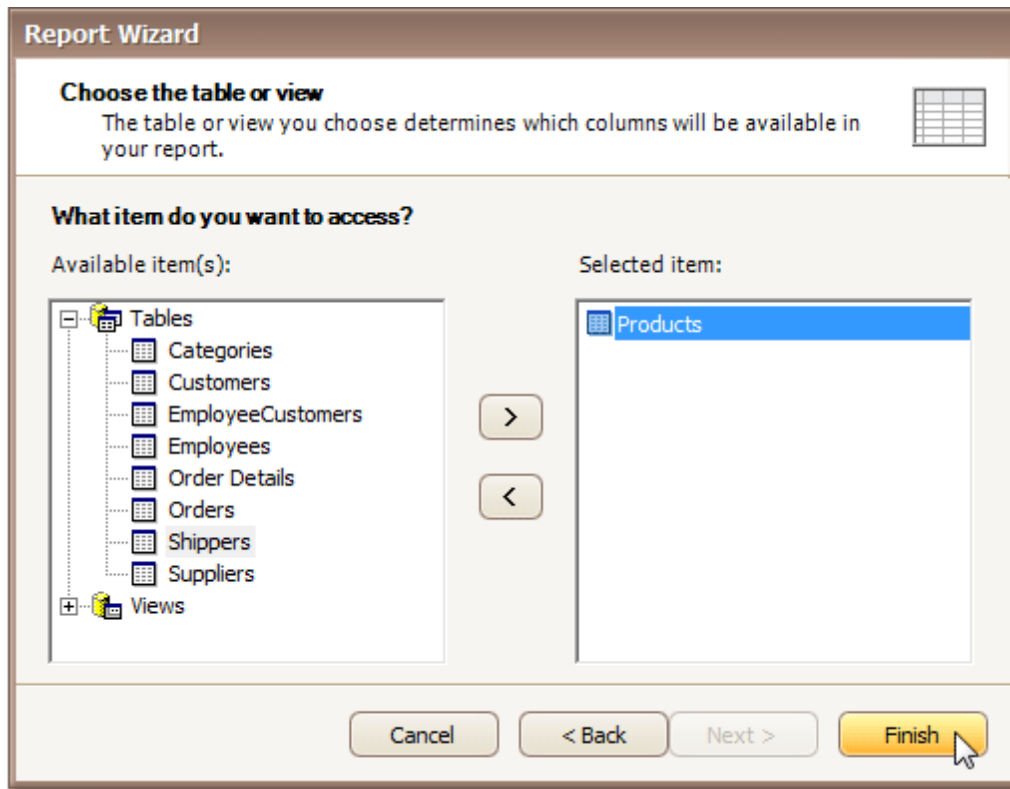
Note

Note that you can select only one table or view to be bound to the report. Therefore, it's impossible to create a master-detail report with this wizard.

Click **Next** to proceed to Step 4 - Choose Columns to Display in Your Report.

Step 4 - Choose Columns to Display in Your Report

Purpose

Choose fields (attributes) whose data will be displayed in your report. The selected fields and corresponding captions will be automatically added to your report, arranged one under another.

Page Interface

The list on the left-hand side shows all available fields (attributes). To select the required fields, double-click them or drag them to the list box on the right-hand side. Another way to select fields is to use arrow buttons to move them back and forth.

Note that you can move multiple fields at once. To do this, you first need to select them by clicking while holding CTRL or SHIFT, or by using SHIFT+UP ARROW or SHIFT+DOWN ARROW shortcuts.
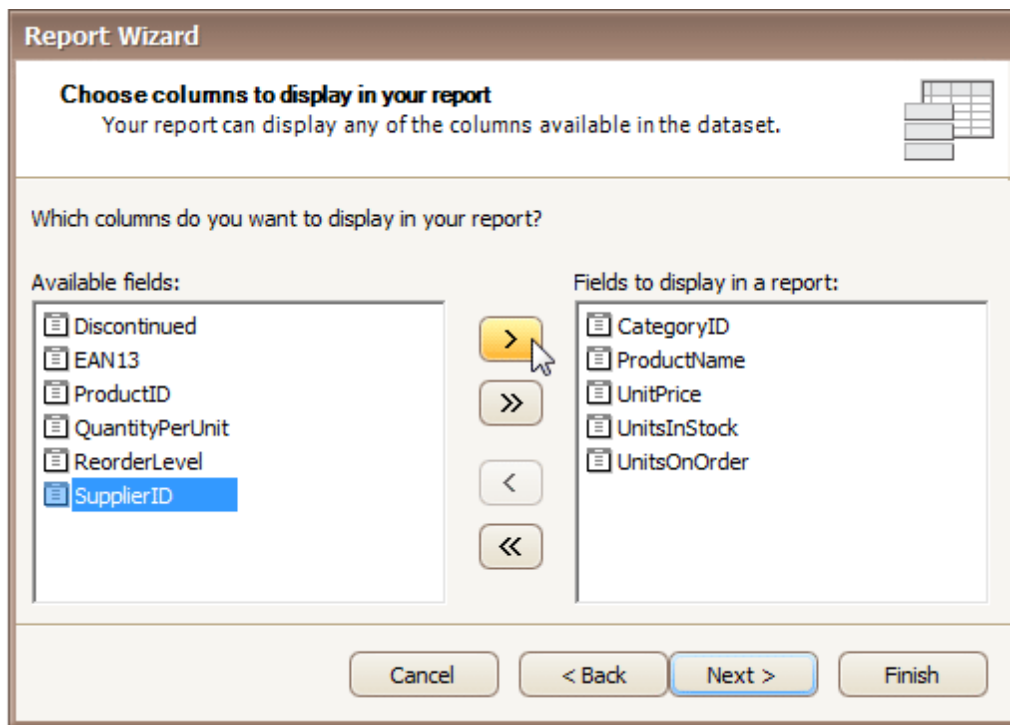
Note

To continue or finish report creation, you must select at least one field.

Result

You can stop the wizard at this step by clicking **Finish**. In this case, your report will look similar to the image below.

Report1

Category ID	1
Product Name	Chai
Units On Order	0
Unit Price	$18.00
Units In Stock	39

Category ID	1
Product Name	Chang
Units On Order	40
Unit Price	$19.00
Units In Stock	17

Category ID	2
Product Name	Aniseed Syrup
Units On Order	70
Unit Price	$10.00
Units In Stock	13

Category ID	2
Product Name	Chef Anton's Cajun Seasoning
Units On Order	0
Unit Price	$22.00
Units In Stock	53

If you want to customize your report further, click **Next** to proceed to .

Step 5 - Add Grouping Levels

Purpose

This page allows you to group data in your report. For instance, if you are displaying car sales information, you may want to keep records corresponding to the same model together. Each set of records with the same model will become a "group" with its own header.

Nested grouping and grouping against multiple fields are fully supported. The following image illustrates all basic grouping types.

Note

If you don't need to group your data, simply click **Next** on this page to skip this step.

Page Interface

The list on the left-hand side displays data fields that can be used to group data. To apply grouping, do one of the following.

- Select columns and click the right arrow (**>**) button.
- Drag required columns to the box on the right-hand side.
- Double-click columns.

Note that grouping fields on the right-hand side can be selected by clicking them. This is useful if you need to remove them or change their order. To accomplish the latter, use the up arrow (☐) and down arrow (☐) buttons.
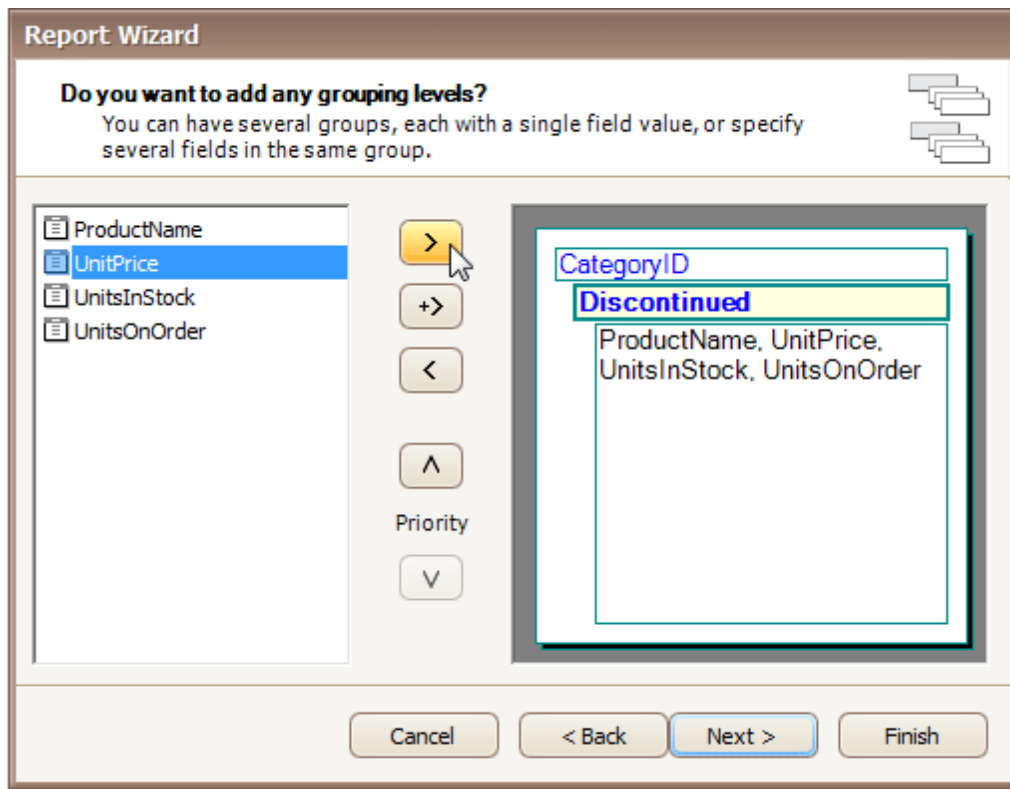
Result

You can stop the wizard on this step by clicking **Finish**. In this case, your report will look similar to the image below.

Report1

Category ID	Discontinued	Product Name	Unit Price	Units In Stock	Units On Order
1					
	☐				
		Chai	$18.00	39	0
		Chang	$19.00	17	40
		Sasquatch Ale	$14.00	111	0
		Steeleye Stout	$18.00	20	0
		Côte de Blaye	$263.50	17	0
		Chartreuse verte	$18.00	69	0
		Ipoh Coffee	$46.00	17	10
		Laughing Lumberjack Lager	$14.00	52	0
		Outback Lager	$15.00	15	10
		Rhönbräu Klosterbier	$7.75	125	0
		Lakkalikööri	$18.00	57	0
	☑				
		Guaraná Fantástica	$4.50	20	0
2					
	☐				
		Aniseed Syrup	$10.00	13	70
		Chef Anton's Cajun Seasoning	$22.00	53	0
		Grandma's Boysenberry Spread	$25.00	120	0
		Northwoods Cranberry Sauce	$40.00	6	0
		Genen Shouyu	$15.50	39	0
		Gula Malacca	$19.45	27	0
		Sirop d'érable	$28.50	113	0
		Vegie-spread	$43.90	24	0
		Louisiana Fiery Hot Pepper Sauce	$21.05	76	0
		Louisiana Hot Spiced Okra	$17.00	4	100
		Original Frankfurter grüne Soße	$13.00	32	0
	☑				
		Chef Anton's Gumbo Mix	$21.35	0	0

If you want to customize your report further, click **Next**. If data grouping has been applied on this page, you'll proceed to Step 6 - Summary Options. If you haven't grouped your data, you'll skip the Summaries step and go to Step 7 - Choose Report Layout.

Step 6 - Summary Options

🗐**Note**

This wizard step is only available if you've applied data grouping in the previous step (Step 5 - Add Grouping Levels). If you haven't grouped data, this step is skipped.

Purpose

Use this page to specify totals to be displayed for each data group and grand totals for the entire report. For instance, you may need to display the sum of values in a particular field, the average value, etc. Specified totals will be displayed after corresponding groups, and in the report footer.

Page Interface

This page displays all available numerical and date-time fields that aren't used to group data. Using the check box table, you can specify which functions should be calculated for these fields.

Sometimes, data fields can contain empty values (this is different from, say, zero in a numeric field). If you don't want to take these values into account when calculating totals, check **Ignore NULL values**. Otherwise, these values will be treated as zeros for numeric fields and the earliest system date for date-time fields.

Result

You can stop the wizard on this step by clicking **Finish**. In this case, your report will look similar to the image below.

Report1

Category ID	Product Name	Unit Price	Units In Stock	Units On Order
1				
	Chai	$18.00	39	0
	Chang	$19.00	17	40
	Guaraná Fantástica	$4.50	20	0
	Sasquatch Ale	$14.00	111	0
	Steeleye Stout	$18.00	20	0
	Côte de Blaye	$263.50	17	0
	Chartreuse verte	$18.00	69	0
	Ipoh Coffee	$46.00	17	10
	Laughing Lumberjack Lager	$14.00	52	0
	Outback Lager	$15.00	15	10
	Rhönbräu Klosterbier	$7.75	125	0
	Lakkalikööri	$18.00	57	0
Sum			559	
Avg		$37.98		
Max				40
2				
	Aniseed Syrup	$10.00	13	70
	Chef Anton's Cajun Seasoning	$22.00	53	0

If you want to customize your report further, click **Next** to proceed to .

Step 7 - Choose Report Layout

Purpose

This page sets the layout of elements in your report. If you haven't applied data grouping, you can specify how data field values are arranged - into a table, one under another, etc. If report data is grouped, you can choose one of the available indentation styles for nested elements.

Additionally, this page allows you to specify the page orientation for your report.

Page Interface

The following options are available if data grouping has been applied.

If data hasn't been grouped, you will see the following report layout options.

If you want to customize your report further, click **Next** to proceed to . Otherwise, click **Finish** to complete report customization.

Step 8 - Choose Report Style

Purpose

Apply a predefined style sheet to your report.

Page Interface

Select one of the predefined styles from the list box.
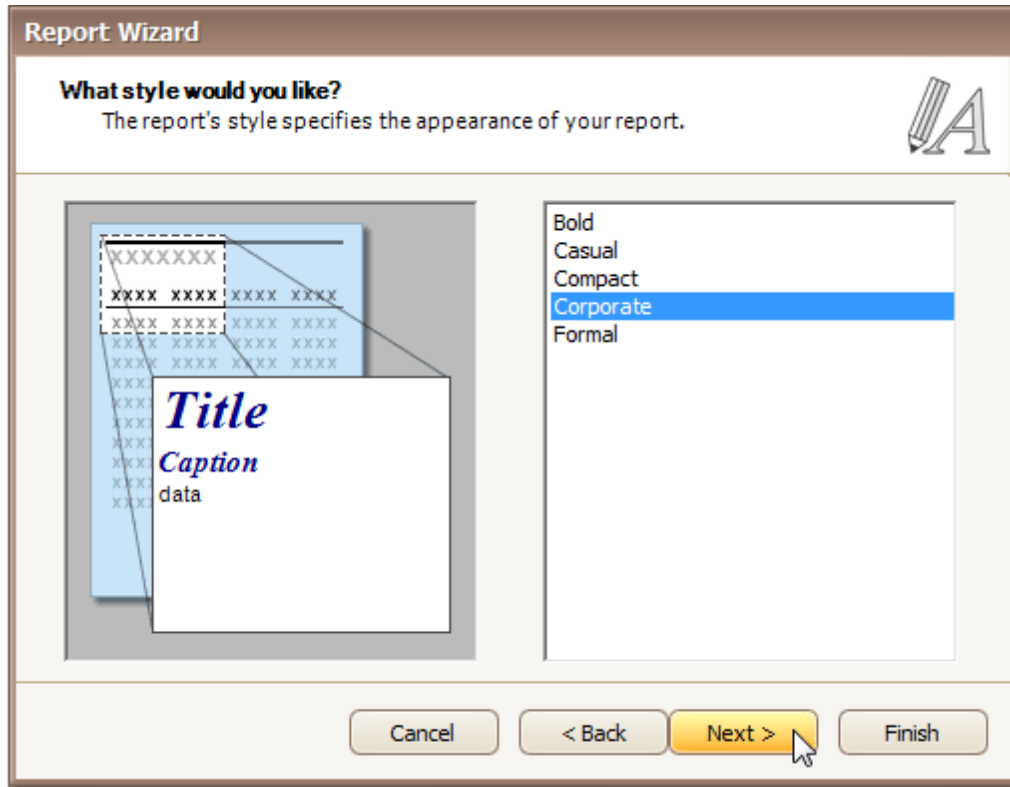
If you want to customize your report further, click **Next** to proceed to . Otherwise, click **Finish** to complete report customization.

Step 9 - Enter a Report Title

Purpose

Specifies the report title.

Page Interface

Enter a title string into the editor and click **Finish** to complete report creation.

Label Report Wizard

The **Report Wizard** allows you to create reports of two kinds - standard reports and **label reports**. To create a label report, invoke the Report Wizard dialog and choose the **Label Report** option on the **Welcome** page.

After completing the Label Report wizard, you will get a blank report that generates labels of a particular size. Since the report designer will clearly indicate the label area, you can then populate this area with the required content and print out your labels.

Use the links below, to learn more about every step in the Label Report wizard.

- Step 1 - Select a Label Type
- Step 2 - Customize Label Options

Step 1 - Select a Label Type

Purpose

When you need to print out stickers or, say, water-proof labels, you need to purchase the appropriate paper. Every supplier will provide it's own specific label size or label position within a paper sheet. To make it easier for you to produce labels, this wizard step lists several label paper suppliers and their products. Once you've selected a supplier and a product (paper and label type), the report will change its settings so that your labels will be printed exactly where they're supposed to, without you having to adjust the label position and size manually.

Page Interface

On this page, choose the supplier from the **Label Products** combo box and a particular product from the **Product Number** list. The box on the left-hand side will be updated to show you label dimensions for the currently selected product.

If you don't need further customization, click **Finish** to complete the report adjustment. If manual correction of label or paper size is required, click **Next**.

Step 2 - Customize Label Options

Purpose

On this page, you can manually adjust settings that were automatically specified in the previous step, based on your supplier and product choice.

Page Interface

Editors on this page allow free customization of all parameters specified on the previous page. The pane on the left-hand side provides a label dimensions preview based on current values.

Click **Finish** to complete report setup.

Preview, Print and Export Reports

Preview and Print a Report

To switch a report to the print preview mode, click the Preview Tab. You will see your report populated with data and broken down into pages, as specified. When in the Print Preview mode, you can print out your report using the appropriate menu and toolbar commands.

Note

To learn more about the options available in the print preview mode, refer to the Print Preview section of this documentation.

Export a Report

In the Preview Tab, you can export your report to files in different formats. The resulting files can either be saved to the hard drive or sent by e-mail.

The following documents describe the basics of report exporting and format-specific export options.

- Exporting from Print Preview
- PDF-Specific Export Options
- HTML-Specific Export Options
- MHT-Specific Export Options
- RTF-Specific Export Options
- XLS-Specific Export Options
- XLSX-Specific Export Options
- CSV-Specific Export Options
- TXT-Specific Export Options
- Image-Specific Export Options

Ribbon

The Ribbon organizes commands into a tabbed interface, providing quick and intuitive access to these commands.
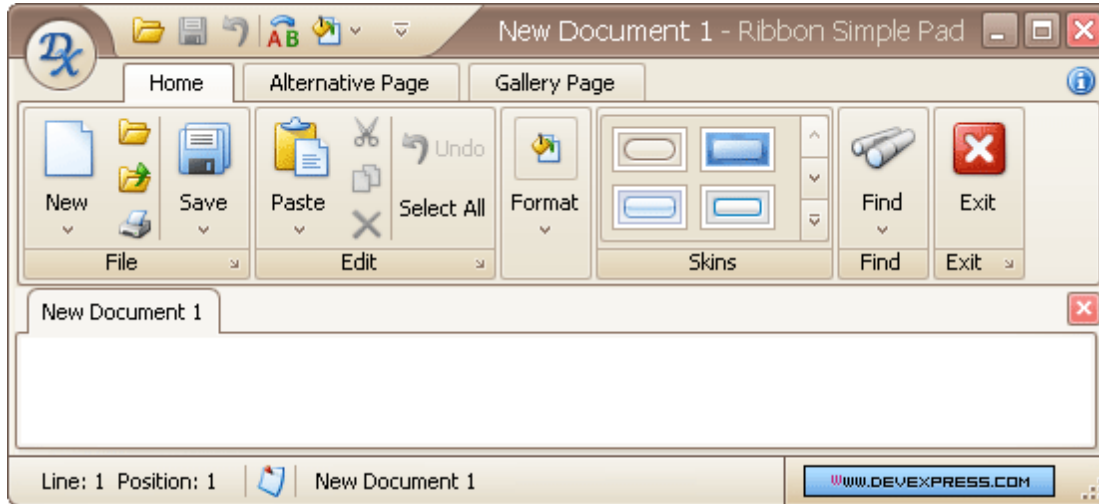
Topics in this section:

- Frequently Used Ribbon Commands
- Minimize Ribbon
- Invoke Ribbon Commands

Frequently Used Ribbon Commands

Frequently used commands are typically displayed within the Quick Access Toolbar, at the top of the Ribbon:
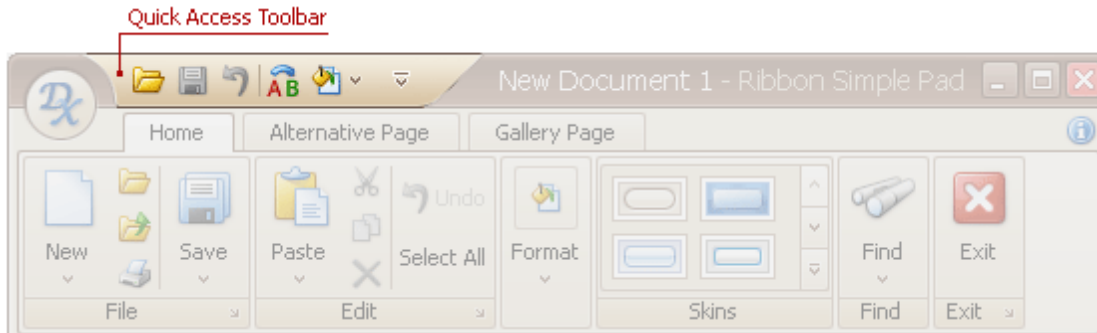
To add any command to the Quick Access Toolbar, right-click the command and select **Add to Quick Access Toolbar**:
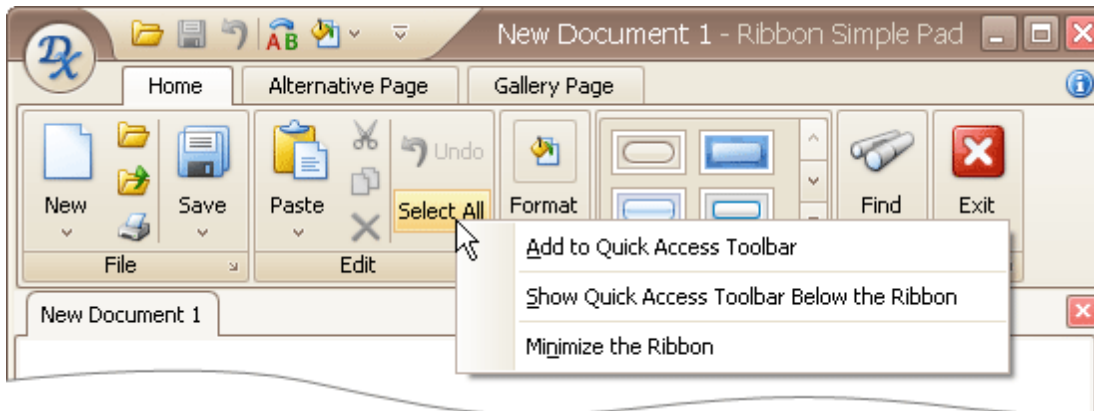
To add a group of commands to the Quick Access Toolbar, right-click the group's caption and select **Add to Quick Access Toolbar**:
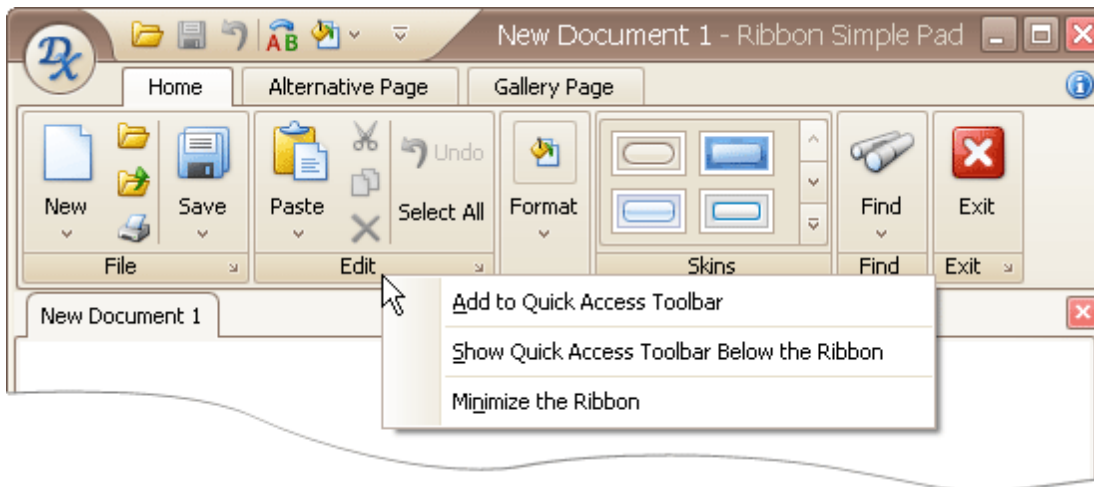
To remove any command from the Quick Access Toolbar, right-click the command and select **Remove from Quick Access Toolbar**:
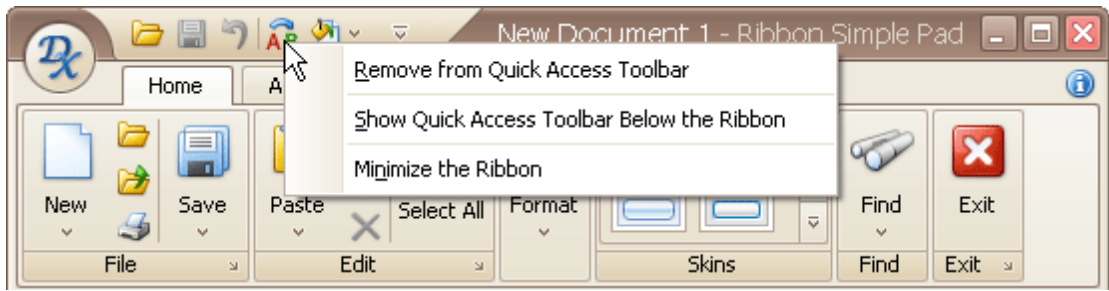
Minimize Ribbon

To minimize the Ribbon, right-click any command and select **Minimize the Ribbon**:
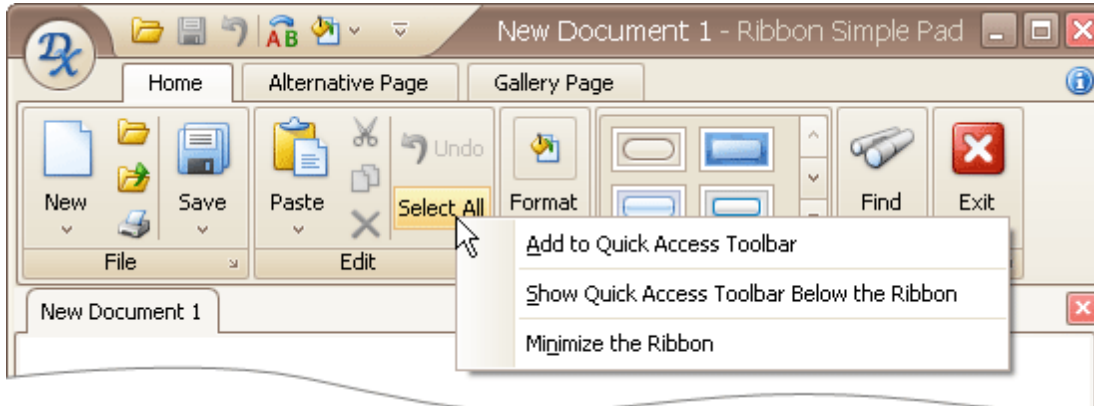
To restore the Ribbon, right-click any command or page and uncheck the **Minimize the Ribbon** option:
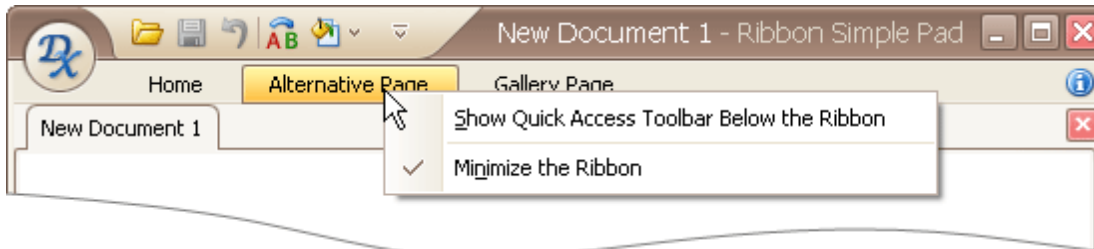
You can also minimize and restore the Ribbon by double-clicking any tab page header.

Invoke Ribbon Commands

To select a specific command, you can click it with the mouse or invoke it via its shortcut. See below for more information.

Shortcuts are associated with each page and command in the Ribbon. To see the shortcuts, press ALT or F10. Shortcuts will appear next to the corresponding tab pages and commands:
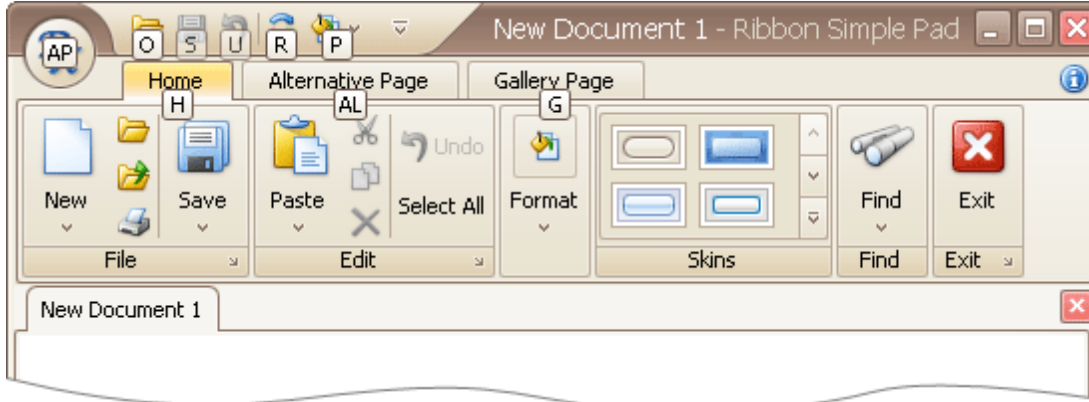
Shortcuts can be composed of one, two or three symbols. If a shortcut is represented by one symbol, you can invoke the command by pressing this symbol. If a shortcut is represented by two or three symbols, to invoke the command, press the symbols one after another.

Initially, when pressing ALT or F10, shortcuts are displayed for commands within the Quick Access Toolbar (at the top of the Ribbon) and for tab pages. To access shortcuts for commands within a specific tab page, you need to press the shortcut associated with this page.

For example, to display shortcuts for commands within the Home page (see the image above), press **H**:
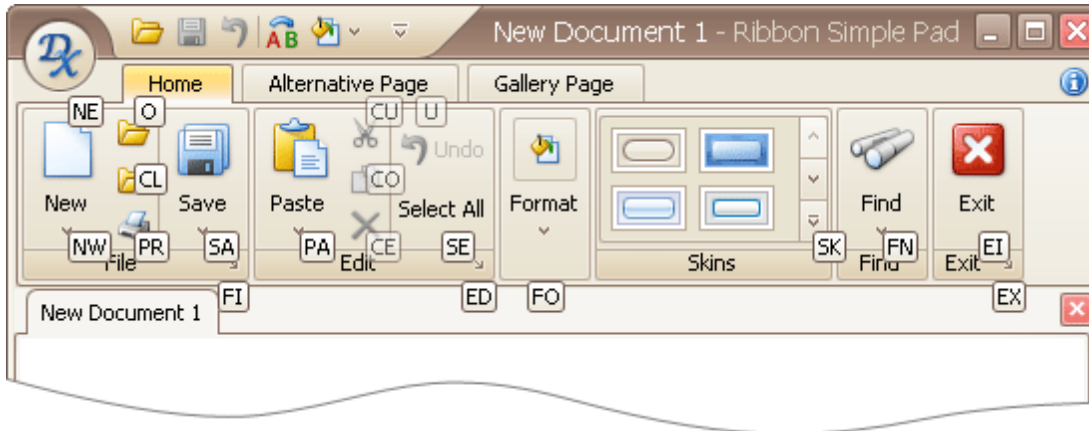
Rich Text Editor

This section describes the capabilities provided by the **Rich Text Editor**.

Text Editor UI

- [Editor Elements](#)
- [Toolbars](#)
- [Ribbon Interface](#)

File Operations

- [Create a New Document](#)
- [Load a Document](#)
- [Save a Document](#)
- [Print a Document](#)

Margins and Page Orientation

- [Margins and Page Orientation](#)

Viewing and Navigating

- [Navigate through a Document](#)
- [Switch Document Views](#)
- [Zoom a Document](#)

Text Editing

- [Select Text](#)

- Delete Text
- Find and Replace Text
- Use a Clipboard
- Check Text Spelling
- Undo and Redo Last Operations

Formatting

- Format Text
- Format Paragraphs
- Apply Styles

Lists

- Numbered Lists
- Bulleted Lists
- Multilevel Lists

Tables

- Insert a Table
- Add and Remove Table Borders
- Customize a Style of Cell Borders
- Select a Cell, Row or Column
- Insert a Cell, Row or Column
- Delete a Cell, Row or Column
- Merge or Split Cells
- Align Text in Table Cells
- Set Background Color of Cells

Header and Footer

- Header and Footer

Embedding Fields (Mail Merge)

- Embedding Fields (Mail Merge)

Document Protection

- Protect and Unprotect a Document
- Edit a Protected Document

Miscellaneous

- Insert a Bookmark
- Insert a Hyperlink
- Insert a Page Break
- Insert a Picture
- Insert Page Numbers

- [Insert a Symbol](#)

Text Editor UI

Editor Elements

The **Rich Text Editor** consists of visual elements that provide you with capability of editing and viewing documents.

Main Elements

The main area of the **Rich Text Editor** control is the **Text Editing Surface** that displays a document to be edited. Here, a document can look as it will appear when you print it (**Print Layout View**), or with reduced formatting and pagination (**Simple View** or **Draft View**). For more information, see Switch Document Views.

To the top and to the left of the **Text Editing Surface**, the **Rich Text Editor** displays horizontal and vertical **rulers**, which you can use to align text, graphics, and other elements in a document.

The **horizontal ruler** controls the horizontal spacing of paragraph margins, columns, and tabs.
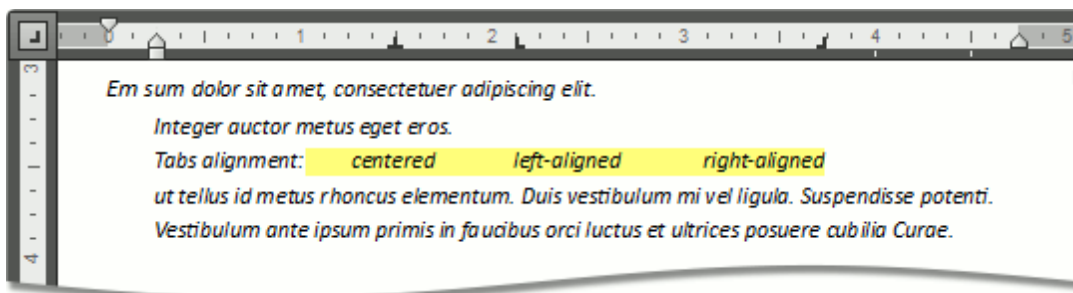
The **vertical ruler** allows you to set the top and bottom margins of the document.
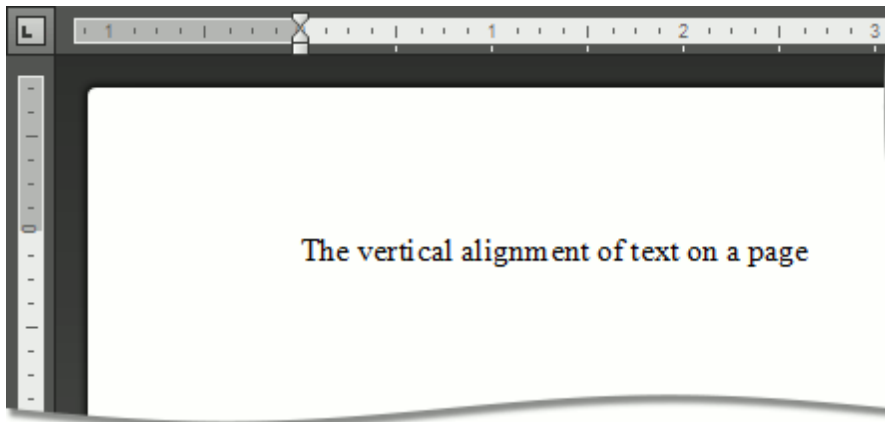
Note

If the ruler is hidden, switch the current view to either the **Draft View** or **Print Layout View**.

At the bottom and at the right of the **Text Editing Surface** there are horizontal and vertical **scrollbars** allowing you to navigate through a document.
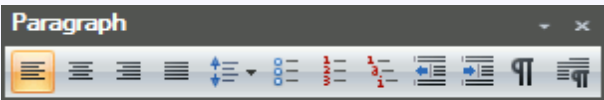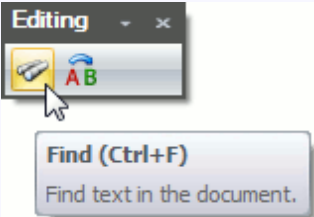
Context Menu
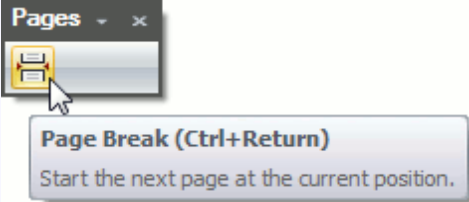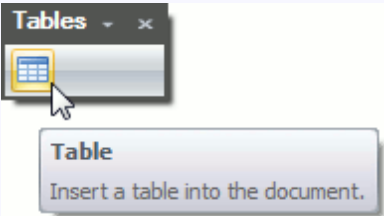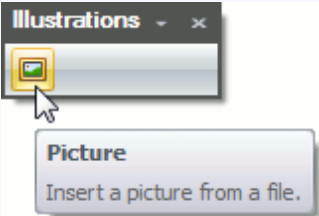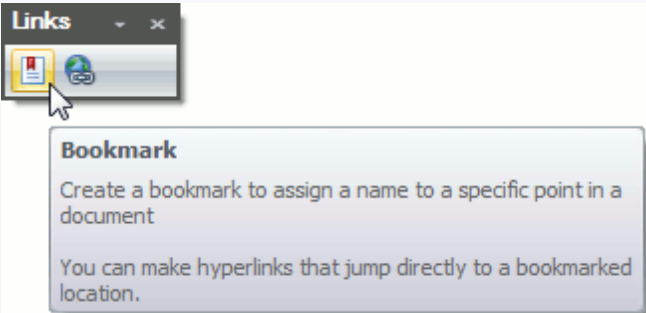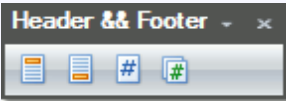
The **Rich Text Editor** supports the **Context Menu** that appears when you right-click within the **Text Editing Surface**. The context menu provides common commands and displays suggested corrections if you right-click the misspelled word.

The European Commission has just announced an agree
the EU, rather than German, which was the other possibi
government cdonceded that English spelling had some ro
phase in plan that w   ish".

conceded
Ignore
Ignore All
Add to Dictionary
Check Spelling
Cut
Copy
Paste
Increase Indent
Decrease Indent
Font
Paragraph
Bullets and Numbering
Bookmark...
Hyperlink...
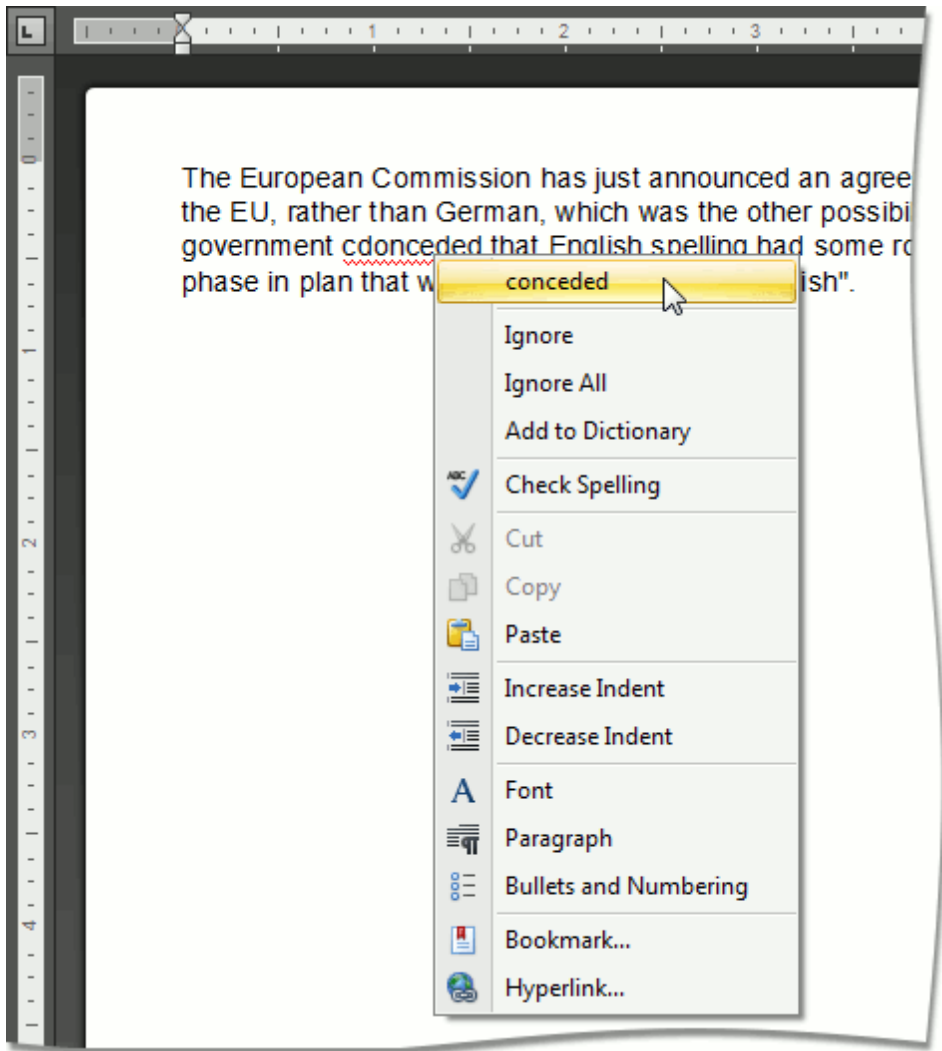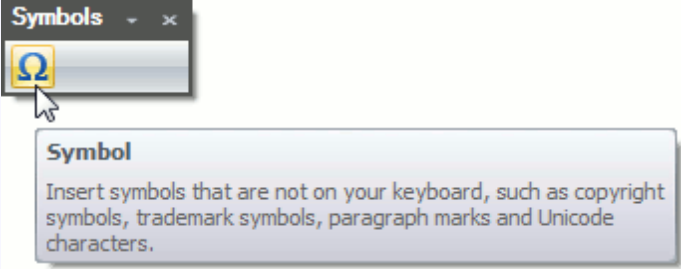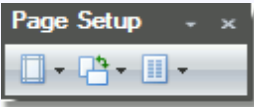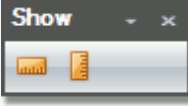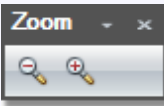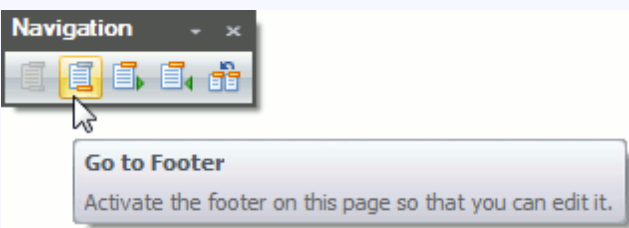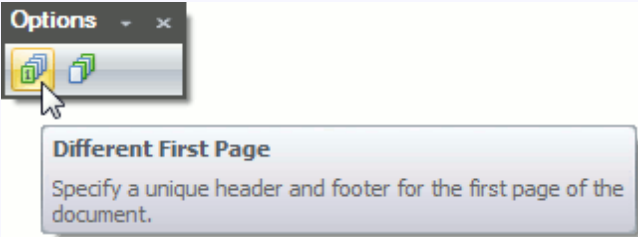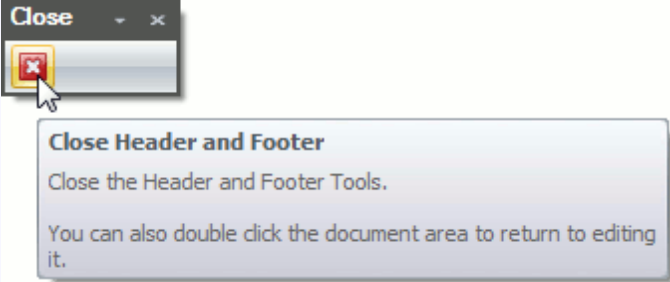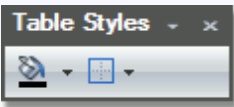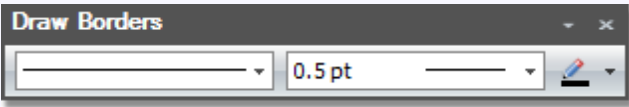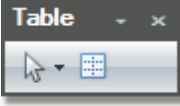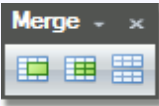
Toolbars

The **Rich Text** control can be accompanied by a set of toolbars that provide a comprehensive functionality for the **Rich Editor**.

Toolbar Name	Visual Appearance	Provided Functionality
Common	Common	Create a New Document Load a Document Save a Document Print a Document Undo and Redo Last Operations
Clipboard	Clipboard	Use a Clipboard
Font	Font — Times New Roman — 12 — A B I U U S S X² X₂ Aa A A A	Format Text
Paragraph	Paragraph	Format Paragraphs
Editing	Editing — AB — Find (Ctrl+F) — Find text in the document.	Find and Replace Text

Styl es	Styles ▼ ✕ Normal ▼	
Pag es	Pages ▼ ✕ Page Break (Ctrl+Return) Start the next page at the current position.	
Tabl es	Tables ▼ ✕ Table Insert a table into the document.	
Illus trati ons	Illustrations ▼ ✕ Picture Insert a picture from a file.	
Link s	Links ▼ ✕ Bookmark Create a bookmark to assign a name to a specific point in a document You can make hyperlinks that jump directly to a bookmarked location.	
Hea der & Foot er	Header && Footer ▼ ✕	

Sym bols	Symbols	Inse rt a Sym bol
	Symbol Insert symbols that are not on your keyboard, such as copyright symbols, trademark symbols, paragraph marks and Unicode characters.	
Pag e Setu p	Page Setup	Marg ins and Page Orie ntati on
Mail Mer ge	Mail Merge	Emb eddi ng Field s (Mail Merg e)
Doc ume nt Vie ws	Document Views	Swit ch Docu ment View s
Sho w	Show	Sho w Ruler s
Zoo m	Zoom	Zoo m a Docu ment
Navi gati on	Navigation **Go to Footer** Activate the footer on this page so that you can edit it.	Hea der and Foot er
Opti ons	Options **Different First Page** Specify a unique header and footer for the first page of the document.	Hea der and Foot er

Close	Close ▾ ✕ Close Header and Footer Close the Header and Footer Tools. You can also double click the document area to return to editing it.	Header and Footer
Table Styles	Table Styles ▾ ✕	Add and Remove Table Borders Set Background Color of Cells
Draw Borders	Draw Borders ▾ ✕ 0.5 pt	Customize a Style of Cell Borders
Table	Table ▾ ✕	Select a Cell, Row or Column
Rows & Columns	Rows && Columns ▾ ✕	Insert a Cell, Row or Column Delete a Cell, Row or Column
Merge	Merge ▾ ✕	Merge or Split Cells

Alignment		Align Text in Table Cells
Protect		Protect and Unprotect a Document
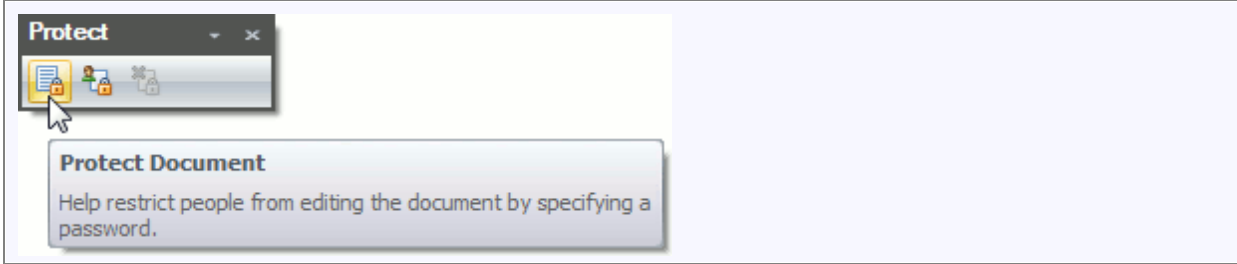
Ribbon Interface

The comprehensive functionality for the **Rich Text** control can be provided via a set of Ribbon tabbed pages. Ribbon pages are structurally and visually split into logical groups. Each of these groups includes commands that have some common features.

Ribbon Tab Name	Visual Appearance
File	
Home	
Insert	
Page Layout	
Mailings	
View	
Review	

Header & Footer Tools / Design	
Table Tools / Design	
Table Tools / Layout	
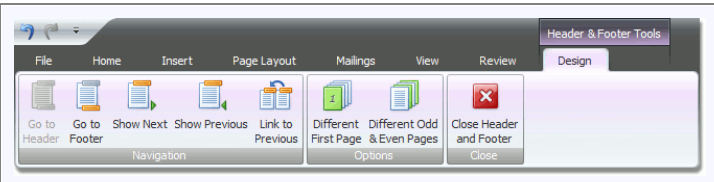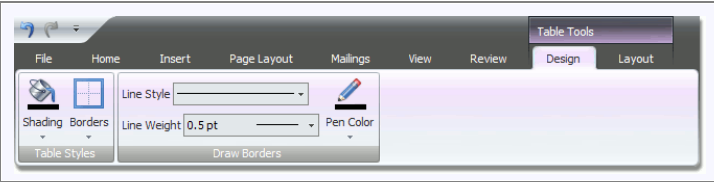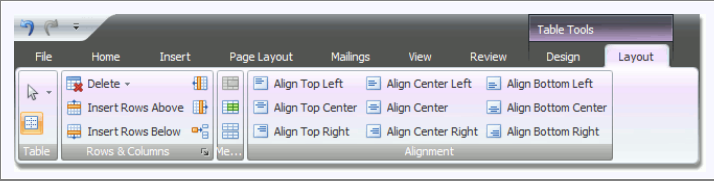
File Operations

Create a New Document

To create a new empty document, use the **New** button of the **Common** [toolbar](#) or the **CTRL+N** keyboard shortcut.
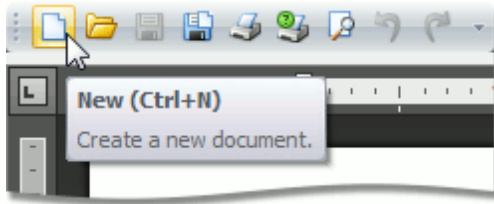
Load a Document

To load a document, click the **Open** 📂 button on the **Common** toolbar or use the **CTRL+O** keyboard shortcut.
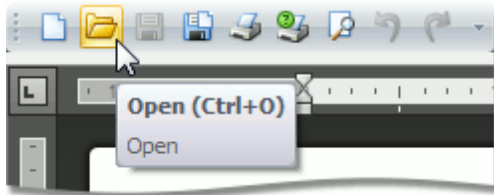
The **Open** dialog appears, allowing you to select a file.
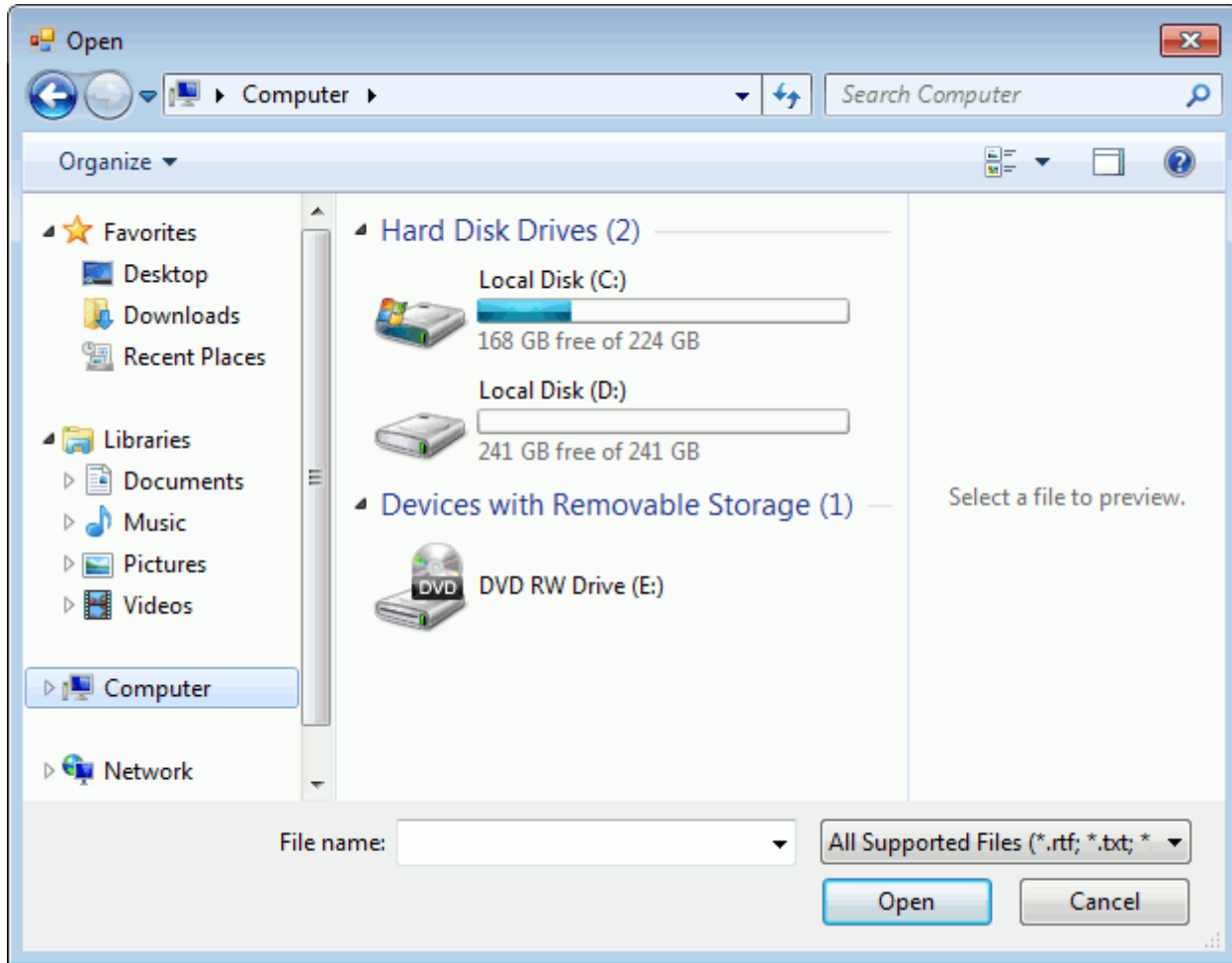
The **Rich Editor** enables you to open documents of the following types:
- Rich Text Format (*.rtf)
- Hyper Text Markup Language format (*.htm, *.html)
- Text Files format (*.txt)
- web page archive format (*.mht)
- WordML (*.xml)
- Open Office XML format (aka Office 2007 or *.docx)
- Open Document Format (*.odt)

Save a Document

To save a document, click the **Save** 🖫 button on the **Common** toolbar or use the **CTRL+S** keyboard shortcut. This allows you to save a document using the save parameters that were previously set.

If you want to save a document using another file name or to modify other parameters (e.g. file format or location), click the **Save As** 🖫 button on the **Common** toolbar or press the **F12** key.
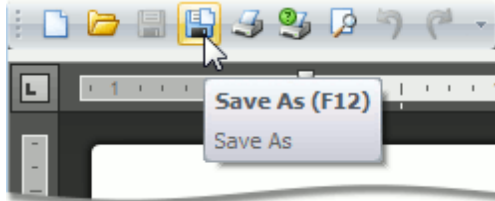
After that, the **Save As** dialog will appear. Note that the same dialog appears if you click the **Save** 🖫 button to save a document, which has been never saved before.
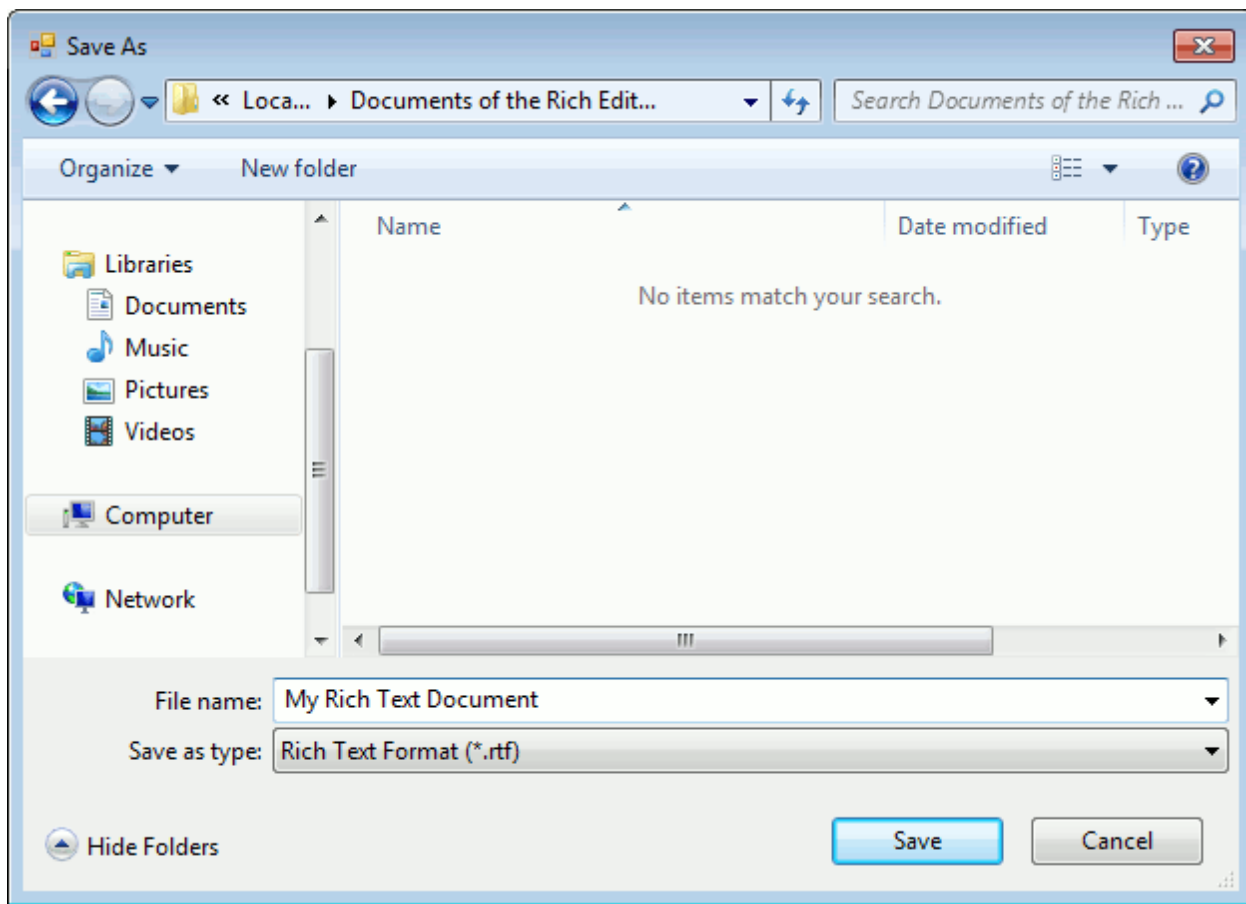
In this dialog you can specify document name, document format and the location to which the document should be saved. The **Rich Edit** control allows you to save documents in the following formats:

- Rich Text Format (*.rtf)
- Hyper Text Markup Language format (*.htm, *.html)
- Text Files format (*.txt)
- web page archive format (*.mht)
- WordML (*.xml)
- Office Open XML format (aka Office 2007 or *.docx)
- Open Document Format (*.odt)

Note

When saving a document in HTML format, in-line pictures are saved in the %FileName%_files folder, where %FileName% is the name of the document file. Image files are named "imageN.png", where N is the picture index starting from the beginning of the document.

Print a Document

Preview a Document Before Printing

To display the document as it will look when printed, click the **Print Preview** button on the **Common** toolbar.
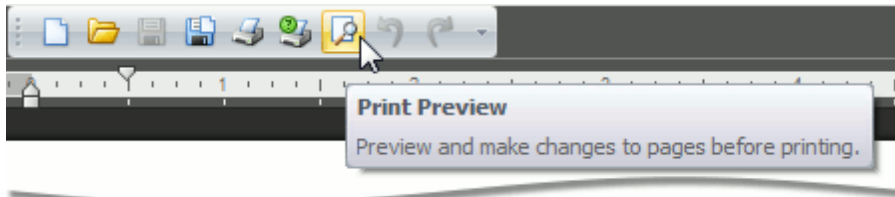
Print a Document

1. Click the **Print** button on the **Common** toolbar...
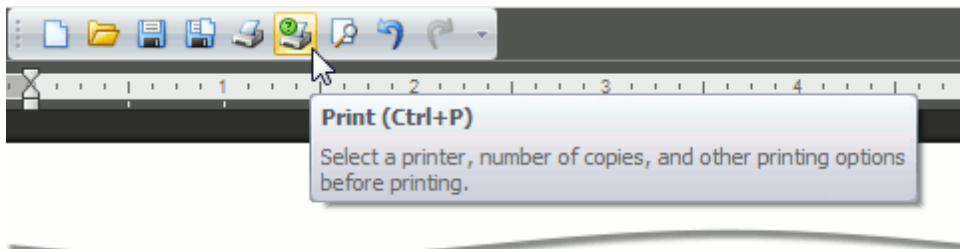
...or press **CTRL+P**.

The **Print** dialog will be invoked.
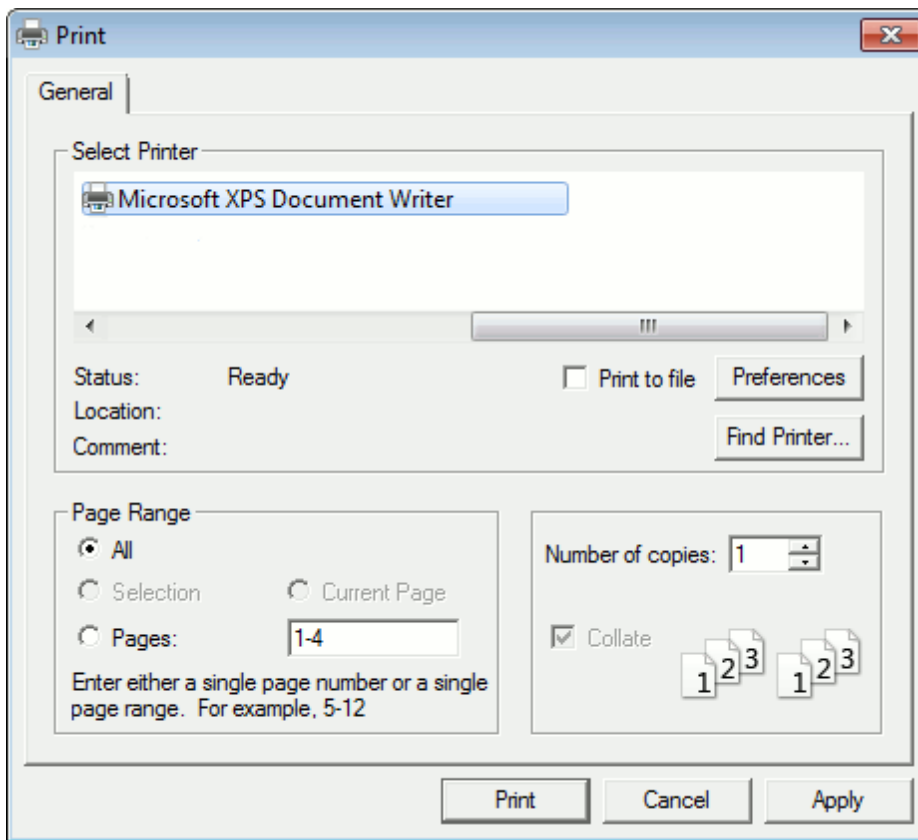
2. In the **Print** dialog, specify all required settings and click **Print**.

Print a Document Using Default Settings

To send a document directly to the default printer without customizing print settings, click the **Quick Print** button on the **Common** toolbar.
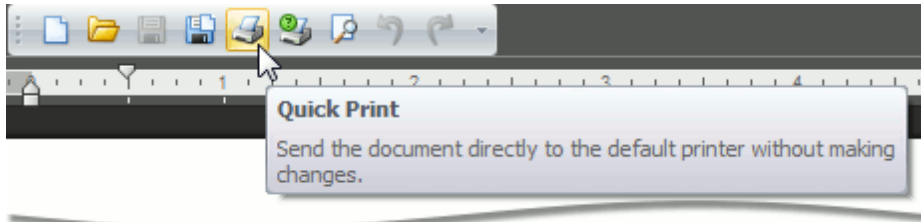
Margins and Page Orientation

Change Page Margins

1. Click the **Margins** button on the **Page Setup** toolbar.
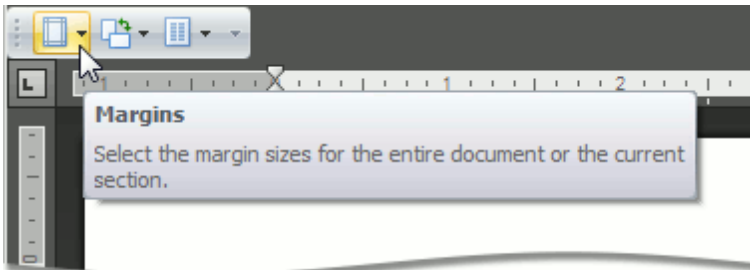
2. From the invoked list, select the margin sizes to set for the document.
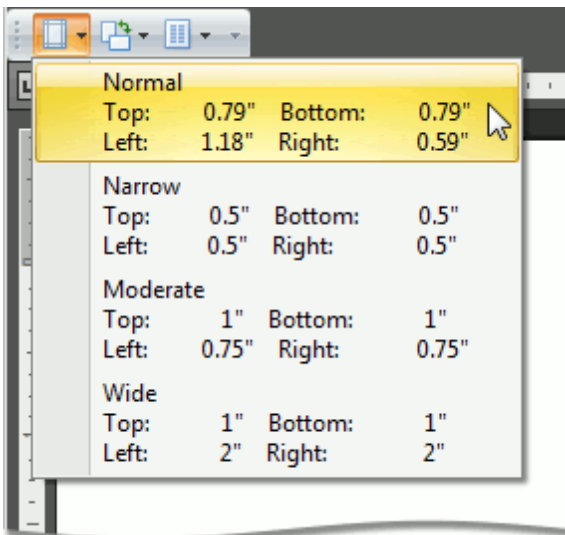
Change Page Orientation

1. Click the **Orientation** button on the **Page Setup** toolbar.
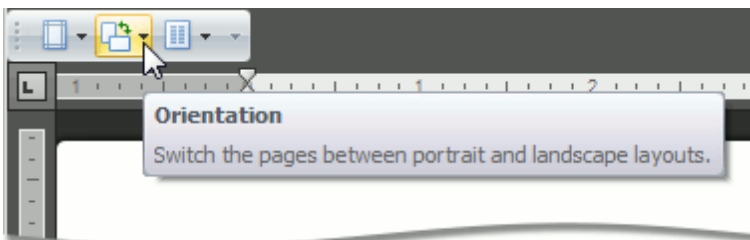
2. From the invoked list, select **Portrait** or **Landscape**.
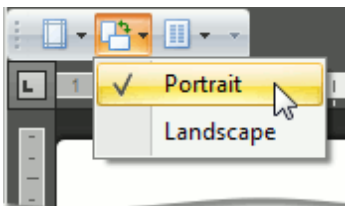
Split Text into Columns

1. Click the **Columns** button on the **Page Setup** toolbar.
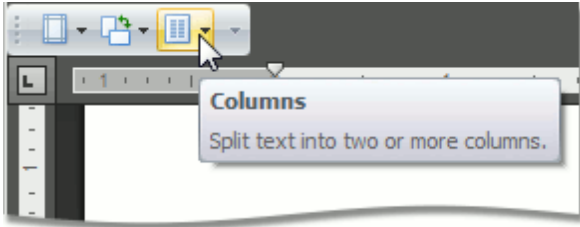
2. From the invoked list, select the number of columns into which the document text should be split.
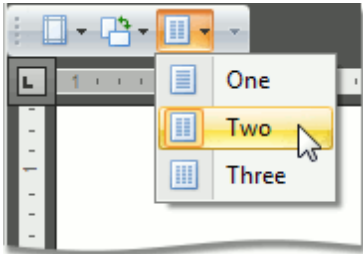
Viewing and Navigating

Navigate through a Document

You can navigate through a document in the following ways:

- Use the mouse device to click anywhere in the document;
- Use the mouse device to drag the scroll box to move through the document;
- Rotate the wheel button to scroll up and down the document;
- Use keyboard shortcuts.

The following table lists the default keyboard shortcuts to navigate through a document.

Keyboard Shortcut	Effect
LEFT ARROW	Moves the cursor to the previous character.
RIGHT ARROW	Moves the cursor to the next character.
UP ARROW	Moves the cursor to the previous line.
DOWN ARROW	Moves the cursor to the next line.
HOME	Moves the cursor to the start of the current line.
END	Moves the cursor to the end of line.
PAGE UP	Moves the cursor backward by the number of lines in the current control's window, minus one.
PAGE DOWN	Moves the cursor forward by the number of lines in the current control's window, minus one.
CTRL+LEFT ARROW	Moves the cursor to the previous word.
CTRL+RIGHT ARROW	Moves the cursor to the next word.
CTRL+UP ARROW	Moves the cursor to the beginning of the previous paragraph.
CTRL+DOWN ARROW	Moves the cursor to the beginning of the next paragraph.
CTRL+HOME	Moves the cursor to the start of the document, and scrolls the document to show the cursor position.
CTRL+END	Moves the cursor to the end of the document, and scrolls the document to show the cursor position.
CTRL+PAGE UP	Moves the cursor to the beginning of the previous page.
CTRL+PAGE DOWN	Moves the cursor to the beginning of the next page.

Switch Document Views

The **Rich Edit** control provides a number of document views that you can switch depending on what you want to do.

Simple View

A simple view shows a document without a page layout. This view can be useful when you want to concentrate on text editing.

To enable this view, click the **Simple View** button on the **Document View** toolbar.
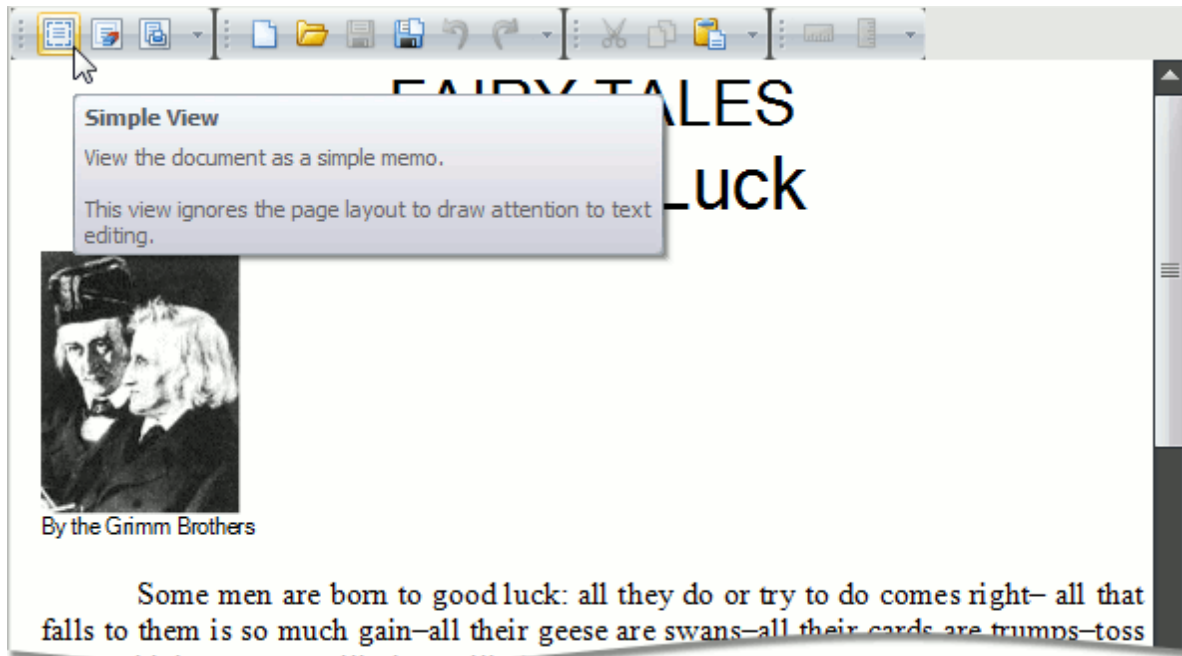
Draft View

The draft view is a view without pagination. It does not display complex formatting features that are most appropriate to the page layout. You can use it for the simplest representation of the document, as well as quick text editing.

To enable this view, click the **Draft View** button on the **Document View** toolbar.
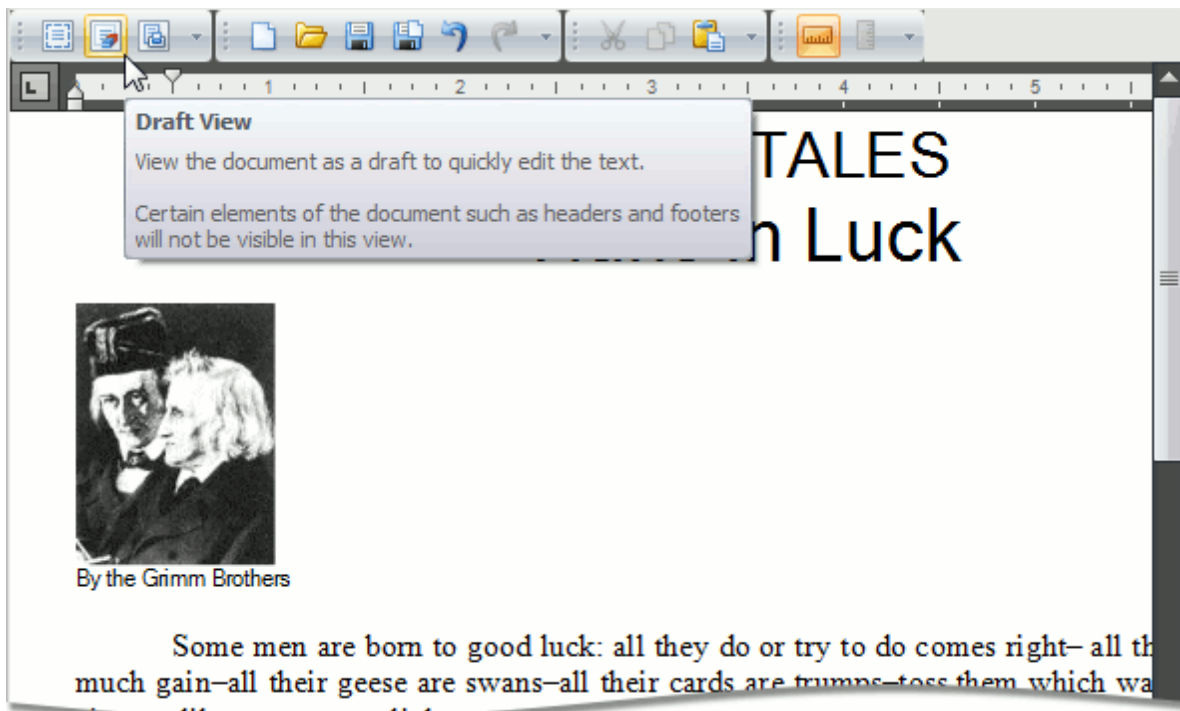
In draft view the horizontal ruler is available. To show or hide it, click **Horizontal Ruler** on the **Show** toolbar.
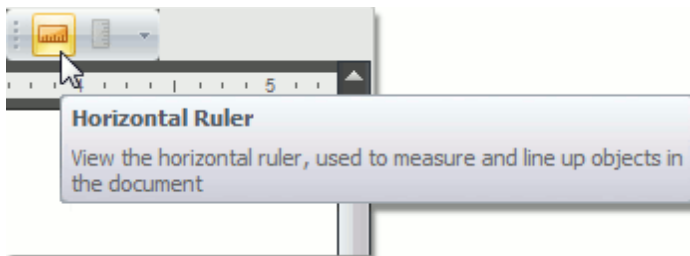
Print Layout View

The print layout view is intended to display all formatting in the document, including complex formatting, and can be used to preview the document printout.

To enable this view, click the **Print Layout** button on the **Document View** toolbar.
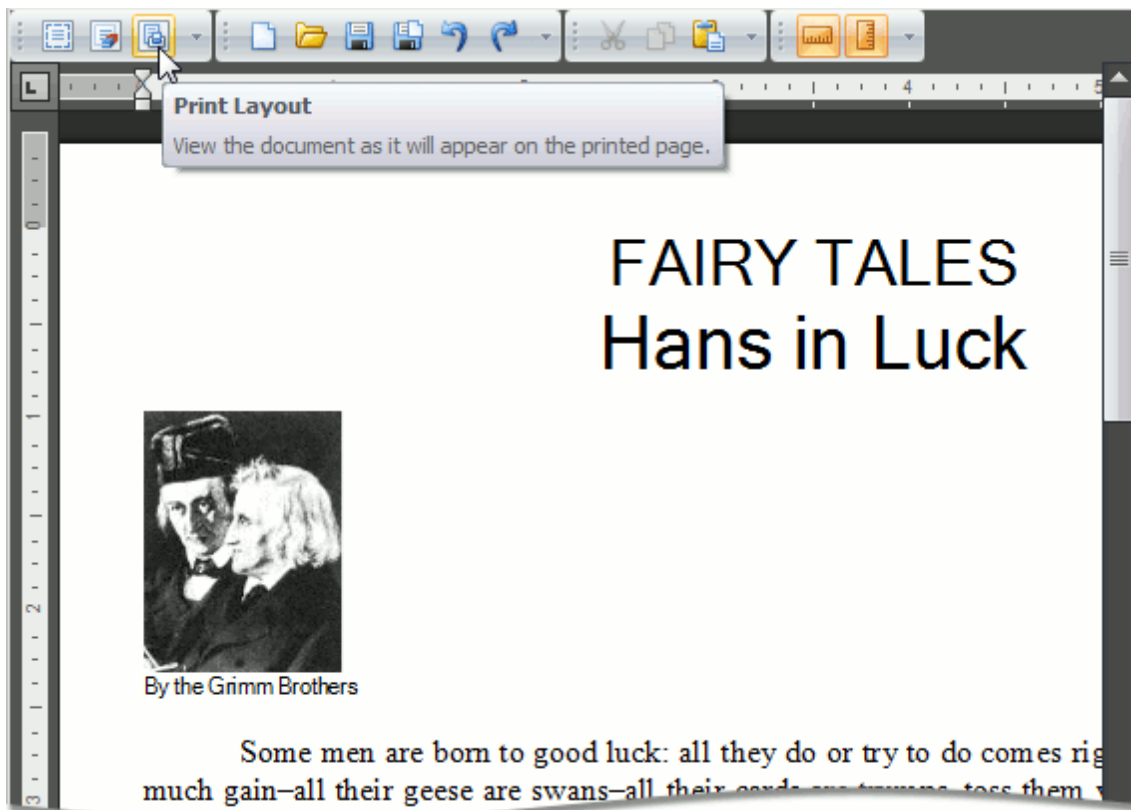
When the print layout view is active, the horizontal and vertical rulers are available. To show or hide horizontal and vertical rulers, click the **Horizontal Ruler** and **Vertical Ruler** buttons on the **Show** toolbar, respectively.
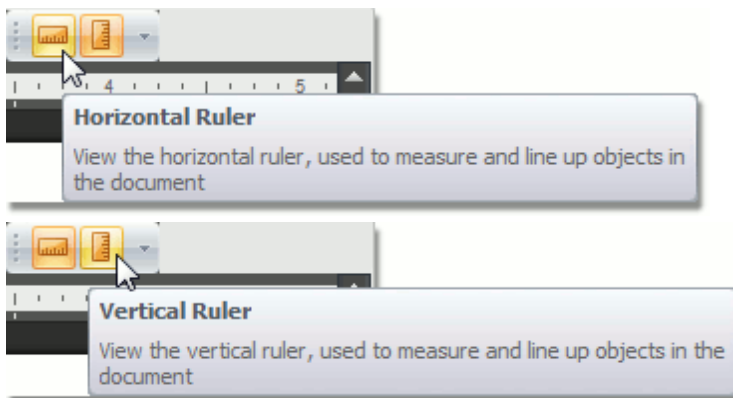
Zoom a Document

You can zoom in and out of a document in the following ways:

- Click the **Zoom In** and **Zoom Out** buttons on the **Zoom** toolbar.

- Use the **CTRL+SUBTRACT** and **CTRL+ADD** keyboard shortcuts.
- Hold the **CTRL** button and rotate your mouse wheel.

Text Editing

Select Text

To select text in the **Rich Editor**, use the following mouse actions and keyboard shortcuts.

- Selecting **one character**
  To select only one character, click before the character, hold down the **Shift** key and click the **Right Arrow** once.

- Selecting **one word**
  To select one word in a document, place the cursor anywhere in the word (or just before it) and **double-click** with the left mouse button. Another method is to place your cursor at the beginning of the word, hold down the Shift and **Ctrl** keys, and click the **Right Arrow**.

- Selecting **one paragraph**
  Selecting one paragraph is similar to selecting one word. Place the cursor in the paragraph and click **three times** with the left mouse button. Another method is to place the cursor in the left margin and **click twice** to highlight the whole paragraph.

- Selecting **entire document**
  Click **three times** on the left side of the page in the margin area, and the entire document will be highlighted. Also, the **CTRL+A** keyboard shortcut can be used to highlight the entire document.

- Selecting **one line**
  The cursor in the margin will highlight one line with one click. Another method is to place the cursor at the beginning of the line, and use the **SHIFT+END** keyboard shortcut to extend selection to the end of the line. Similarly, at the end of the line the **SHIFT+HOME** keyboard shortcut can be used.

The following table lists the default keyboard shortcuts used for selecting text in the **Rich Editor**.

SHIFT+LEFT ARROW	Extends the selection to the previous character.
SHIFT+RIGHT ARROW	Extends the selection to the next character.
SHIFT+UP ARROW	Extends the selection to the previous line.
SHIFT+DOWN ARROW	Extends the selection one line down.
SHIFT+HOME	Extends the selection to the beginning of the line.
SHIFT+END	Extends the selection to the end of the current line.
SHIFT+PAGE UP	Extends selection to the previous screen.
SHIFT+PAGE DOWN	Extends the selection to the next screen.
CTRL+SHIFT+LEFT ARROW	Extends the selection to the previous word.
CTRL+SHIFT+RIGHT ARROW	Extends the selection to the next word.
CTRL+SHIFT+UP ARROW	Extends the selection to the next paragraph.
CTRL+SHIFT+DOWN ARROW	Extends the selection to the next paragraph.
CTRL+SHIFT+HOME	Extends the selection to the beginning of the document.
CTRL+SHIFT+END	Extends the selection to the end of the document.
CTRL+SHIFT+PAGE UP	Extends the selection to the previous page.
CTRL+SHIFT+PAGE DOWN	Extends the selection to the next page.

CTRL+A	Selects the entire document.
CTRL+CLEAR	Selects the entire document.
CTRL+NUM 5	Selects the entire document.

Delete Text

The **Backspace** key deletes one character to the left of the caret. The **Delete** key deletes one character to the right of the caret.

To delete more than just a few characters, select text and press the **Delete** key.

The following table lists the default keyboard shortcuts used for deleting text.

BACKSPACE	Moves the cursor backwards and erases the character in that space.
CTRL+BACKSPACE	Deletes the previous word in the text.
DELETE	Deletes the selected text.
CTRL+DELETE	Deletes the next word in the text.
SHIFT+DELETE	Cuts the selected text and places it on the clipboard.
CTRL+X	Cuts the selected text and places it on the clipboard.

Find and Replace Text

Find Text

To search for every occurrence of a specific word or phrase:

    1. Click the **Find** button on the **Editing** toolbar...
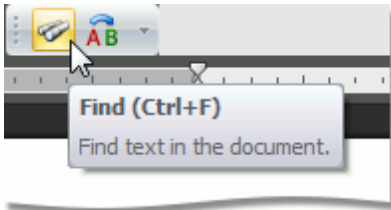
    ... or press **CTRL+F**.

    The **Find and Replace** dialog will be invoked.
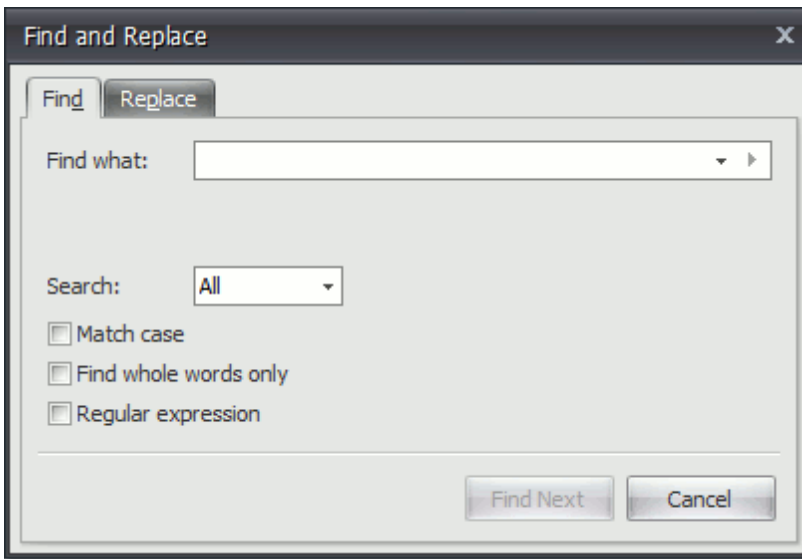
    2. In the **Find what** box, type the text to search for.

    3. Select other search options that you want and click **Find Next**.

    4. To cancel a search, click **Cancel** or press **ESC**.

Find and Replace Text

To automatically replace text:

    1. Click the **Replace** button on the **Editing** toolbar...
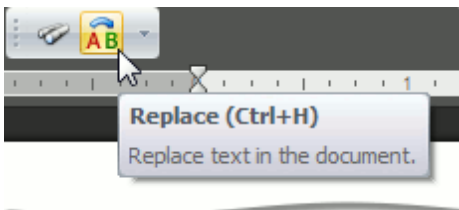
    ... or press **CTRL+H**.

    The **Find and Replace** dialog will be invoked.
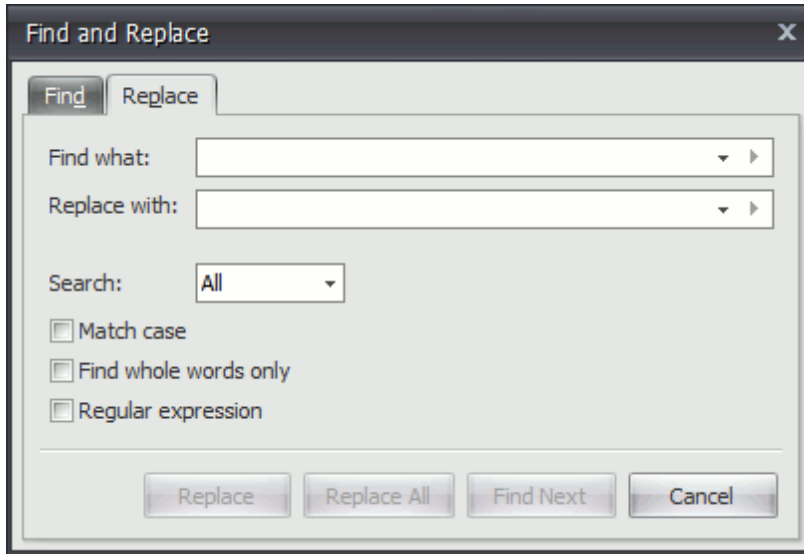
2. In the **Find what** box, type the text to replace.

3. In the **Replace with** box, type the replacement text.

4. Select other search options that you want and click **Find Next**, **Replace** or **Replace All**.

Use Regular Expressions to Find and Replace Text

You can use regular expressions to search for specific text containing a particular pattern:

1. Click **Find** or **Replace** on the **Editing** toolbar...

... or press **CTRL+F** or **CTRL+H**.

The **Find and Replace** dialog will be invoked.
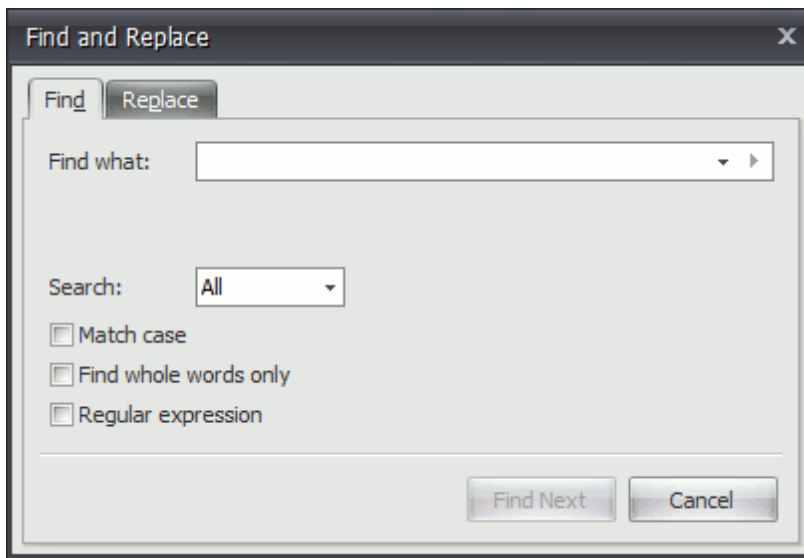
2. Select the **Regular expression** check box.

3. In the **Find what** box, enter the regular expression pattern using a list of specific characters:
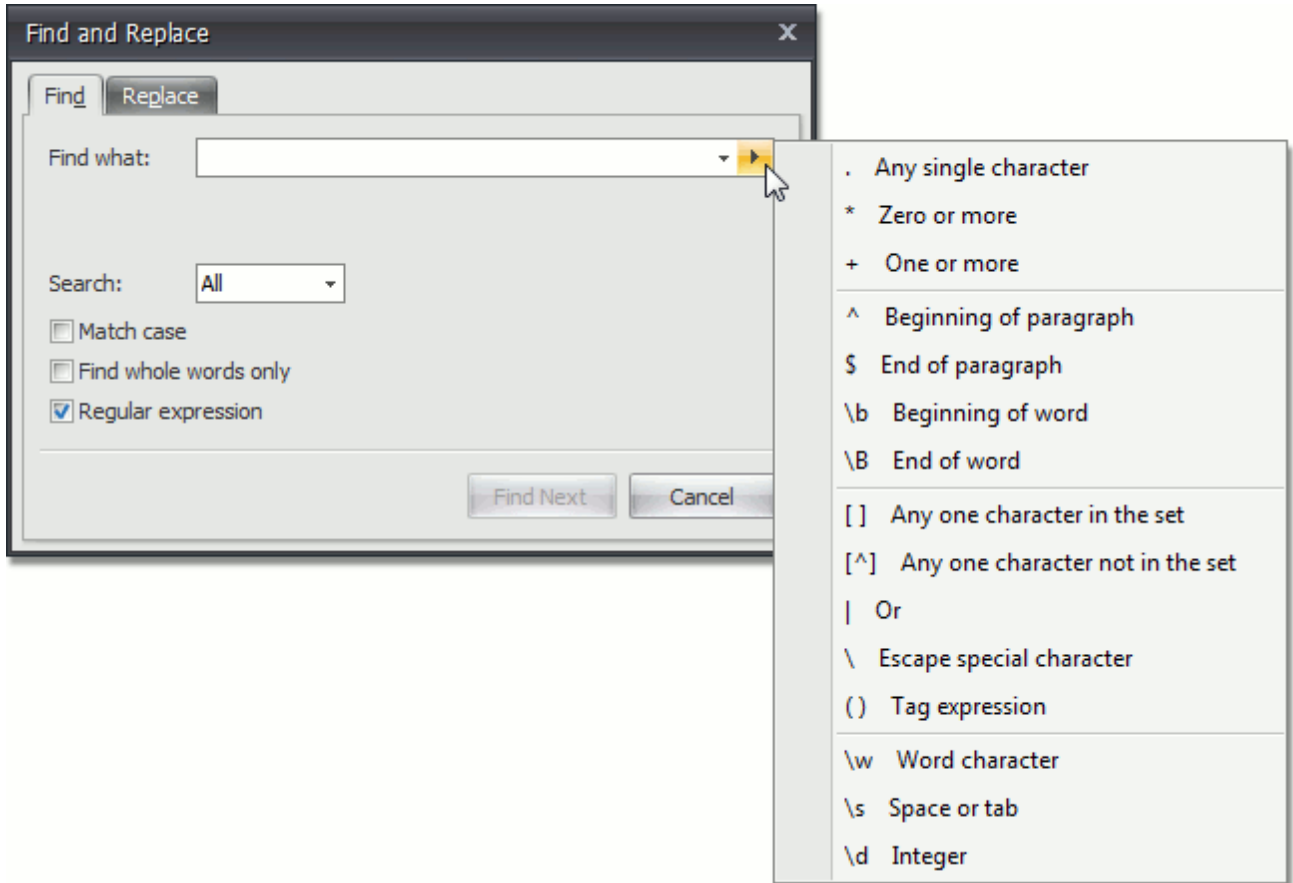
4. If you want to replace the found text, click the **Replace** tab and enter the replacement text in the **Replace with** box.

Note

You can tag various parts of a regular expression to use them in replacement expression (for example, to rearrange the parts of the expression). A regular expression may have up to **9** tagged expressions, numbered according to their order in the regular expression. To enter a tagged expression in the **Replace with** box, enter its index after the symbol & or select it from the list of tagged expressions:
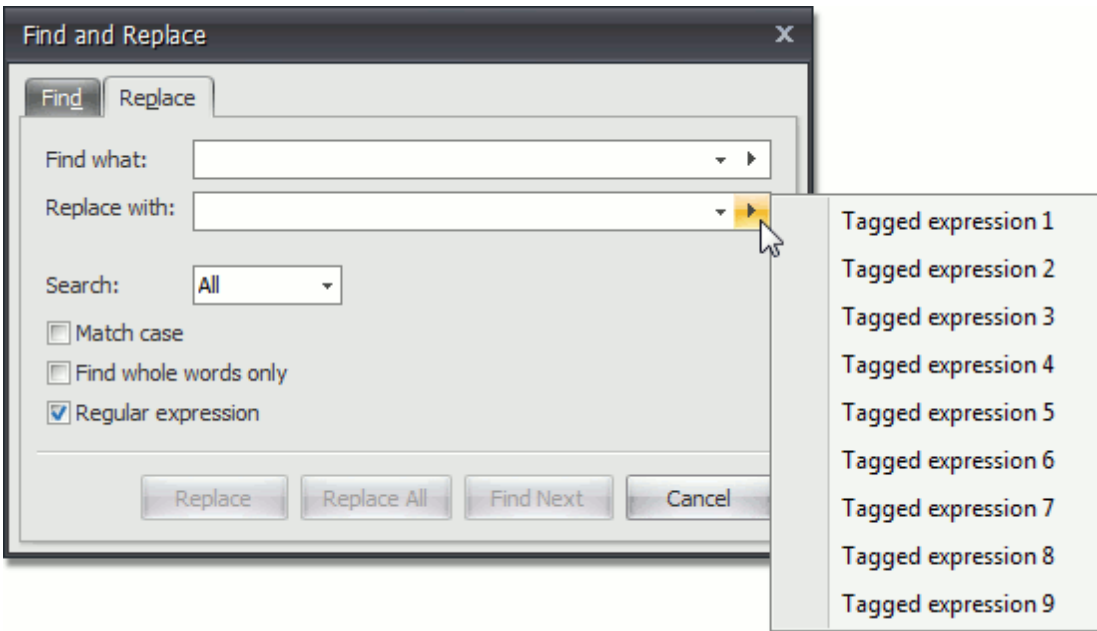
5. Click **Find Next**, **Replace** or **Replace All**.

Use a Clipboard

The **Rich Text Editor** allows you to move and copy text and images using the Clipboard.

To move or copy text or image:

    1. Select the text or image you want to move or copy.

    2. Depending on what you want, do one of the following:

- To move the selection, click the **Cut** button on the **Clipboard** toolbar, or press **CTRL+X**, or press **SHIFT+DELETE**. This cuts the selection from the document and places it on the Clipboard.
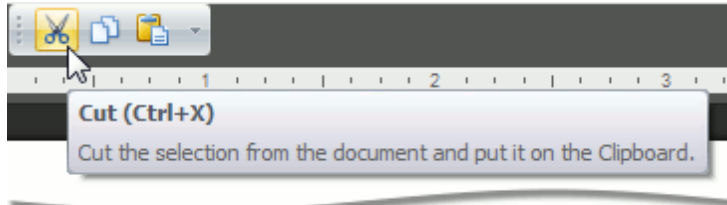
- To copy the selection, click the **Copy** button on the **Clipboard** toolbar, or press **CTRL+C**, or press **CTRL+INSERT**. This copies the selection and places it on the Clipboard.
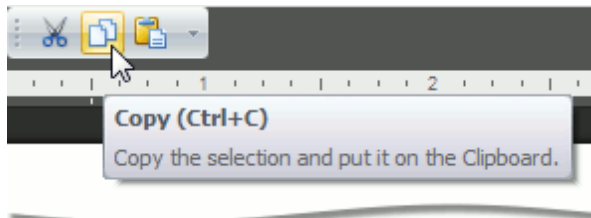
    3. Point to the position where you want to insert the contents from the Clipboard.

    4. Click the **Paste** button on the **Clipboard** toolbar, or press **CTRL+V**, or press **SHIFT+INSERT**. This pastes the contents of the Clipboard.
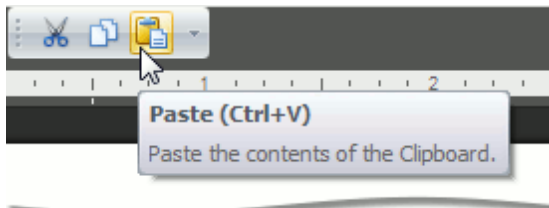
Check Text Spelling

The **Rich Text Editor** supports spell-check. All misspelled words in your document (words that are not found within the available dictionaries in the **Spell Checker**) are underlined. You can work with misspelled words via the context menu, invoked when right-clicking the underlined word.
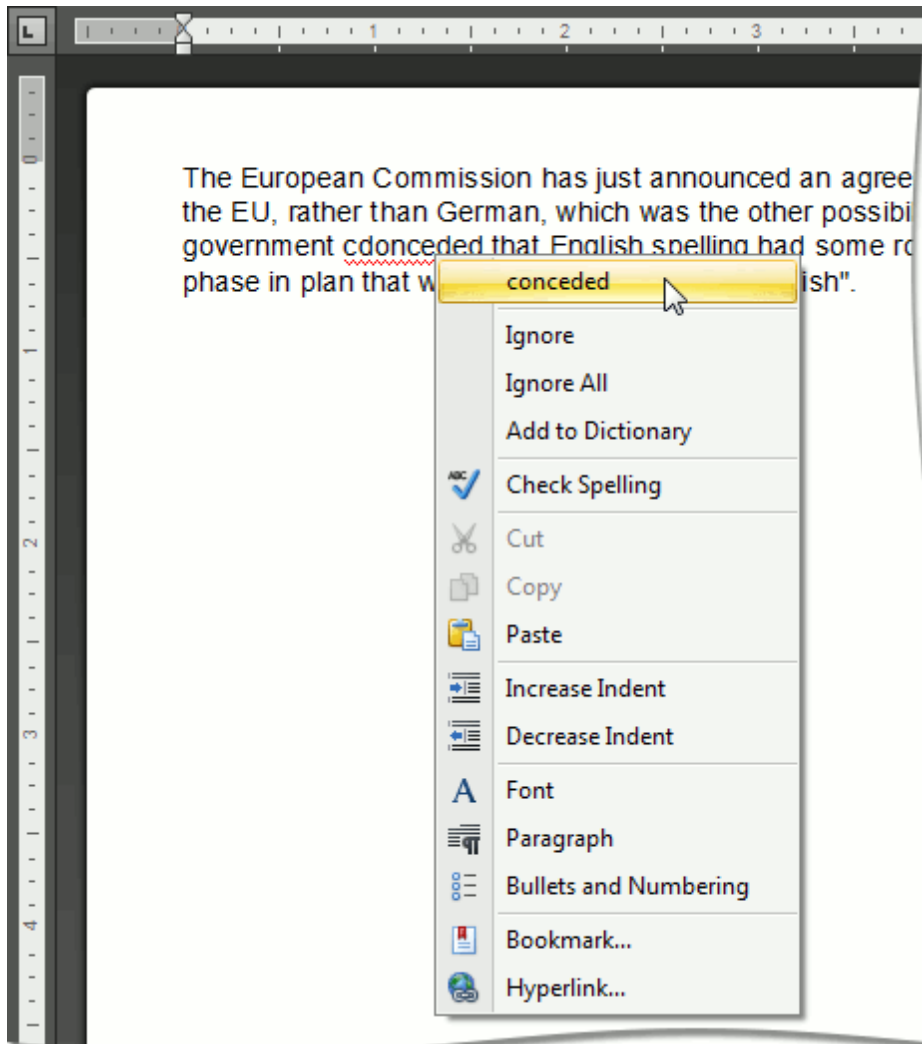
In the context menu, you can do one of the following:

- Select one of the suggested corrections for the misspelled word to correct it;
- Ignore the current occurrence of the word;
- Ignore all occurrences of the word;
- Add the word to the dictionary in the **Spell Checker**.

To perform spell check word-by-word, select the **Check Spelling** item from the context menu, or click the **Spelling** button on the **Check Spelling** toolbar...
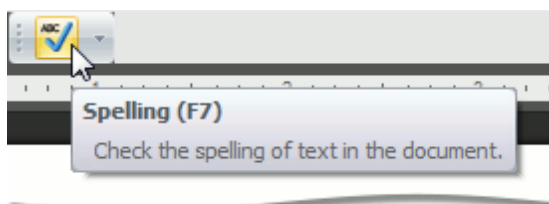
... or press **F7**.

The **Spelling** dialog will be invoked.
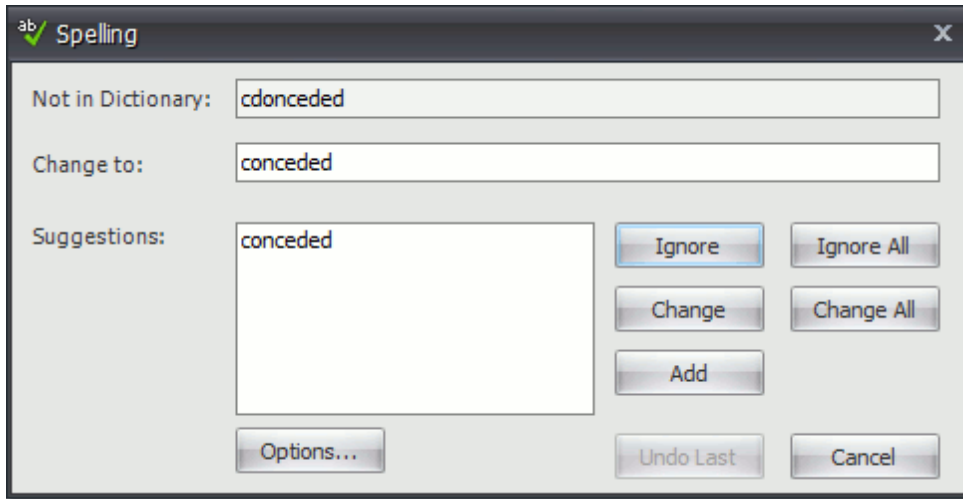
In this dialog, select what to do with the misspelled word, click corresponding button, and you will jump to the next misspelled word.

Undo and Redo Last Operations

The **Rich Editor** allows you to undo and redo the last operation using special buttons (**Undo** and **Redo**) in the **Common** toolbar.

The **Undo** command reverses the most recent action you have performed. To undo an action, click the **Undo** button on the **Common** toolbar, or press **CTRL+Z**, or press **ALT+BACKSPACE**.
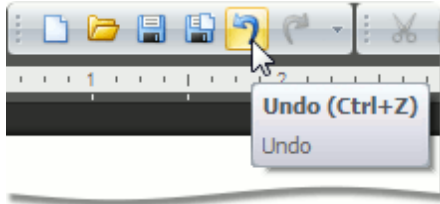
You can execute multiple Undo operations. To return the document to its previous state, just keep performing Undo.

The **Redo** command enables you to take back the last action you've undone. To redo an action, click the **Redo button**, or press **CTRL+Y**, or press **ALT+SHIFT+BACKSPACE**.
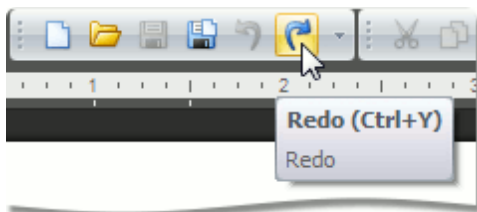
Formatting

Format Text

To format text, first select it and then use the **Font** toolbar to change the font family, size, color, etc.
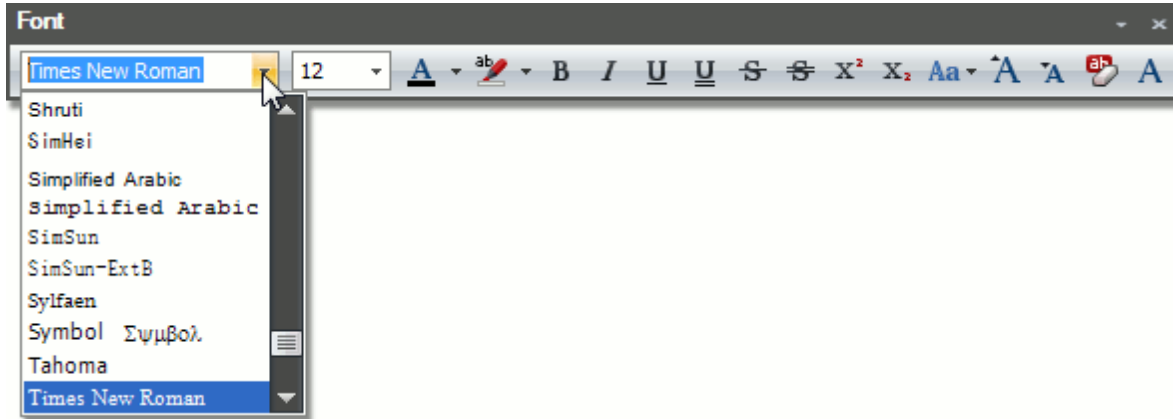
Also, you can modify the font using the **Font** dialog. Select the text that you want to format, right-click it and choose the **Font** item from the context menu.
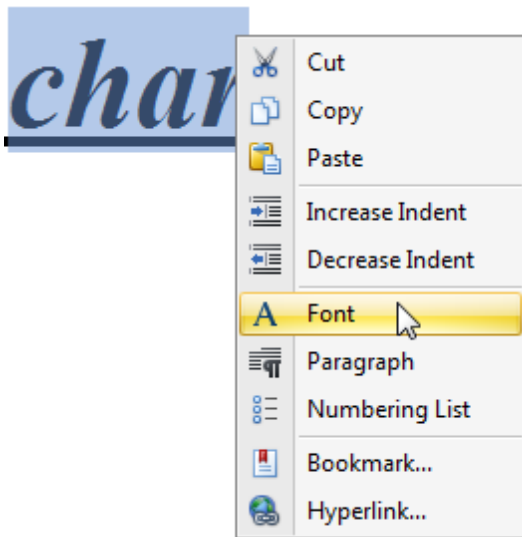
The **Font** dialog appears as illustrated below.
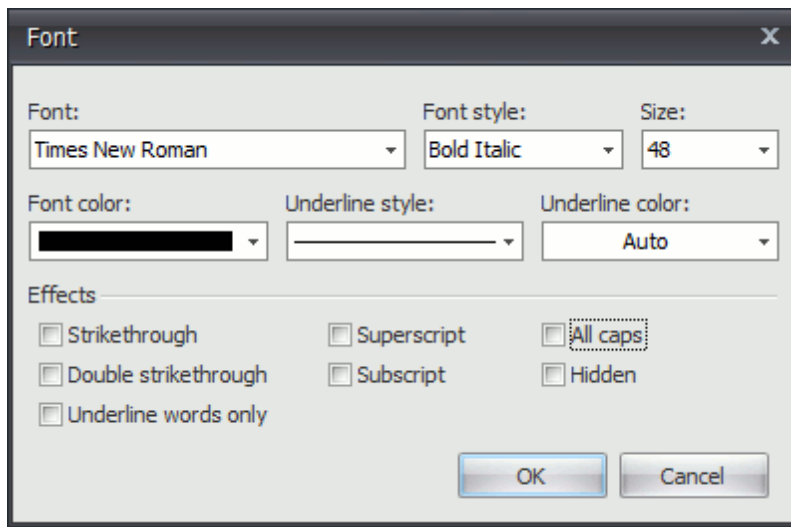
In this dialog, you can specify all required font parameters, and apply them to the selected text.

In addition, the **Rich Editor** provides a list of default keyboard shortcuts for text formatting:

CTRL+B	Toggles the bold style on the selection.
CTRL+I	Toggles the italic style on the selection.
CTRL+U	Toggles the underline style on the selection.
CTRL+D	Invokes the **Font** dialog that allows you to change the font, size and style of the selected text.
CTRL+PLUS	Toggles the subscript style on the selection.
CTRL+CLOSEBRACKETS (])	Increases the font size of the selected text by one point.
CTRL+OPENBRACKETS ([)	Decreases the font size of the selection by one point.
CTRL+SHIFT+PERIOD	Increases the font size of the selection to the closest larger predefined value.
CTRL+SHIFT+COMMA	Decreases the font size of the selection to the closest smaller predefined value.
CTRL+SHIFT+D	Toggles the double underline style on the selection.
CTRL+SHIFT+PLUS	Toggles the superscript style on the selection.
CTRL+SHIFT+H	Toggles between the normal and hidden text mode for the selection. To view the hidden text, press CTRL+SHIFT+8.
CTRL+SPACE	Clears formatting of selected text - resets it to default.

See Also
[Apply Styles](#)

Format Paragraphs

To format a paragraph, first click anywhere within it or <u>select</u> the paragraph, and then use the **Paragraph** <u>toolbar</u> to change line spacing, indentation, alignment and styles.
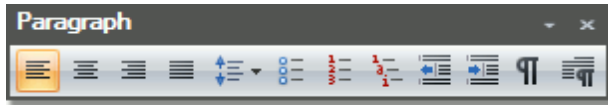
Also, you can use the **Paragraph** dialog to format the paragraph. To invoke this dialog, right-click the paragraph and select the **Paragraph** item from the context menu.
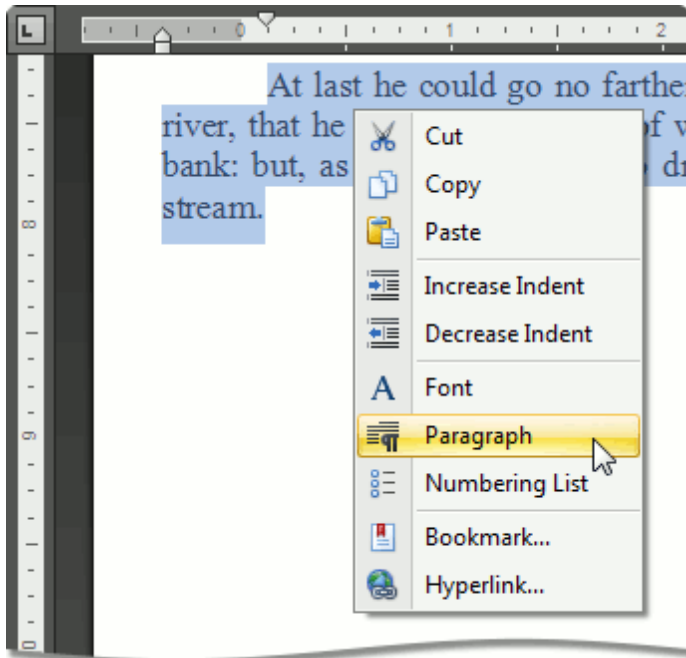
The **Paragraph** dialog appears, as illustrated below.
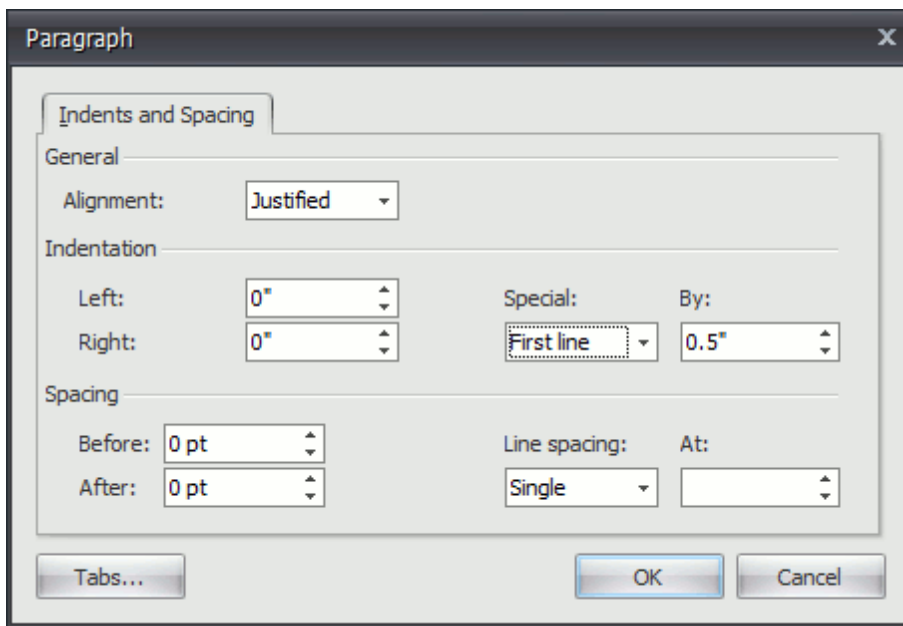
In this dialog, you can change different parameters for the paragraph.

The **Rich Editor** provides a list of the default keyboard shortcuts to format paragraphs.

CTRL+1	Formats a current paragraph with single line spacing.
CTRL+2	Formats a current paragraph with double line spacing.
CTRL+5	Formats a current paragraph with one and a half line spacing.
CTRL+E	Toggles centered paragraph alignment on and off.
CTRL+J	Toggles justified paragraph alignment on and off.
CTRL+L	Toggles left paragraph alignment on and off.
CTRL+R	Toggles right paragraph alignment on and off.

See Also
Apply Styles

Apply Styles

To format a text or a paragraph you can apply styles. A style is a group of formatting characteristics. All these characteristics are applied to a text or a paragraph at once when you apply a style. Thus, styles allow you to change text and paragraph appearance quicker than setting all formatting characteristics separately (Format Text, Format Paragraphs).

A **character based style** includes characteristics to format text within a paragraph (e.g., font type and size, bold and italic formats, etc.)

A **paragraph based style** affects paragraph formatting characteristics such as text alignment, line spacing, etc. It can also include character formatting characteristics.

To apply a style, do the following.

1. Select text or a paragraph that you want to format.
2. Click or type a required style name in the **Quick Styles** box on the **Styles** toolbar.
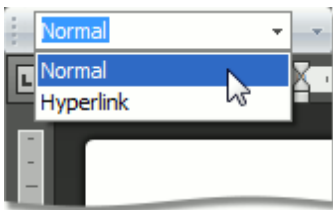
Lists

Numbered Lists

Create a Numbered List as You Type

1. Point to the position within a document from which you want to begin your list.

2. Click the **Numbering** button on the **Paragraph** toolbar.
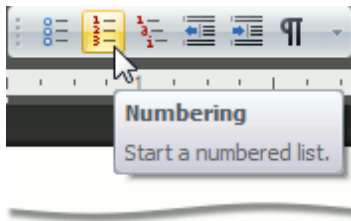
3. Type the text.
4. Press **ENTER** to create the next item of the list.
5. To finish the list, press **ENTER** twice.

Make a Numbered List from the Selected Text

You can add numbers to existing lines of text in two ways. The first one is to use the **Paragraph** toolbar:

1. Select the text lines that you want to transform into a list.

2. Click the **Numbering** button on the **Paragraph** toolbar.

Another way to do the same thing is to use the context menu:

1. Select the text to be transformed into a list.
2. Right-click within the document and select the **Bullets and Numbering** item from the appeared context menu.
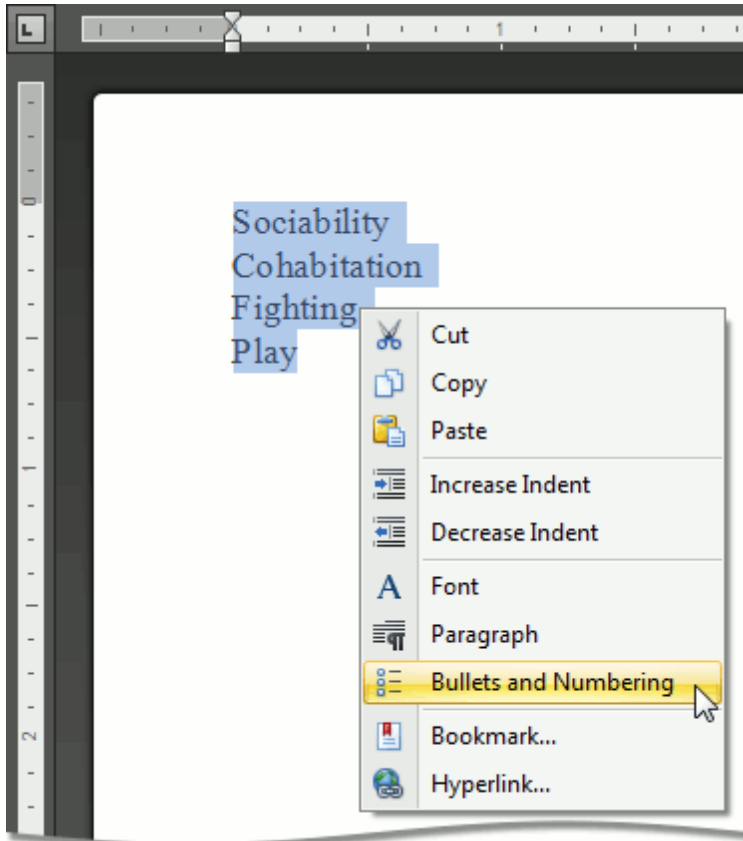
3. In the invoked **Bullets and Numbering** dialog, click the **Numbered** tab and choose the list style that you want to apply.
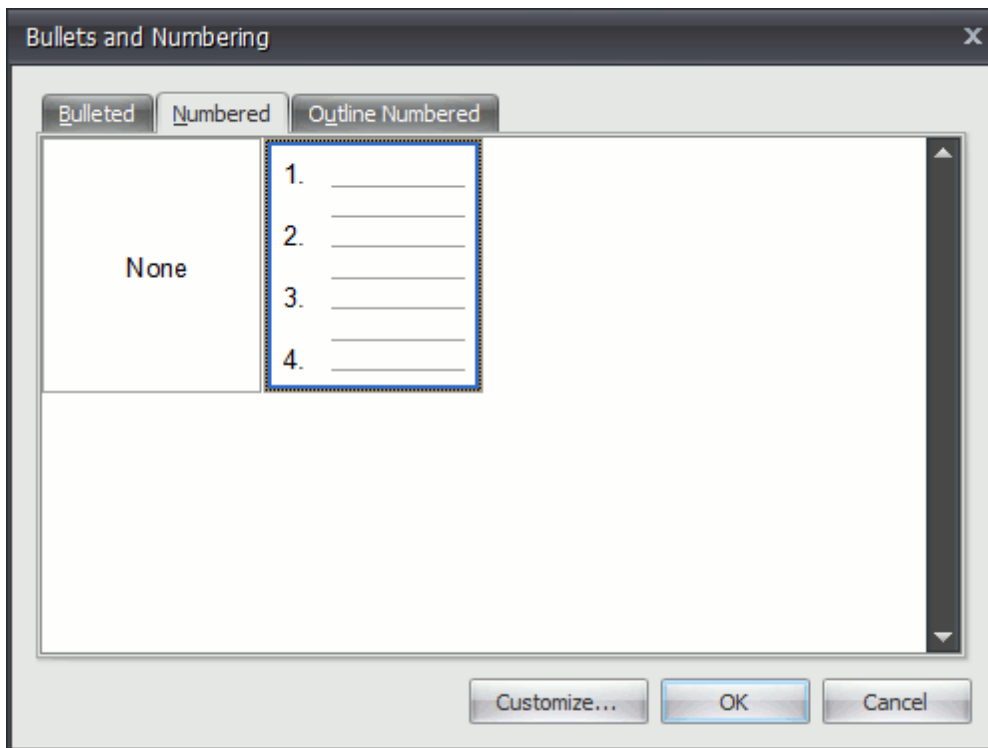

Create Your Own List Style

You can create your own style for a numbered list on the basis of one of the existing list styles, by changing different list parameters.

1. Select the numbered list (or text to be transformed into the numbered list) to which you want to apply your own style.
2. Right-click within the document and select the **Bullets and Numbering** item from the resulting context menu. The **Bullets and Numbering** dialog will be displayed.
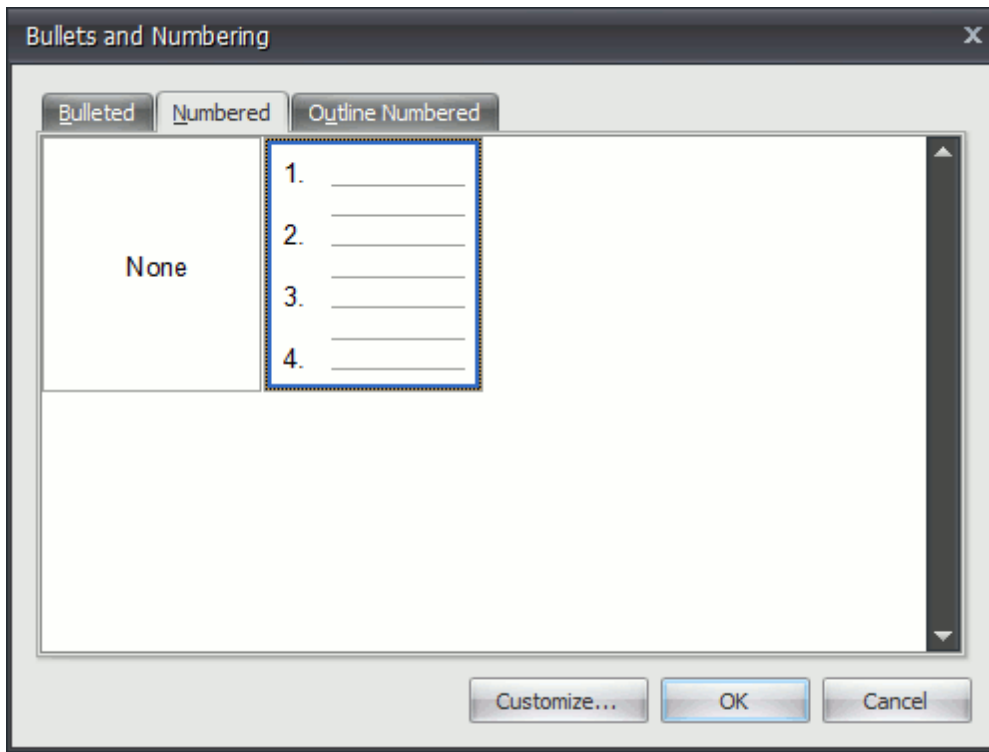
3. Click the **Numbered** tab, choose one of the existing styles and click **Customize...**. The **Customize Numbered List** dialog will be invoked.
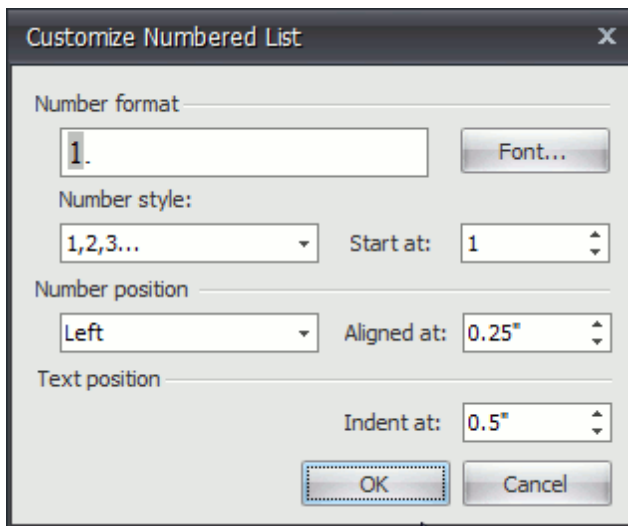

Note

The **Customize...** button is disabled if the **None** item of the **Bullets and Numbering** dialog is selected.
This item is selected automatically, when you invoke the **Bullets and Numbering** dialog for lines of text rather than for a list.

4. In this dialog, change different list parameters to create your own list style.

   For instance, if you specify list parameters in the following way,...
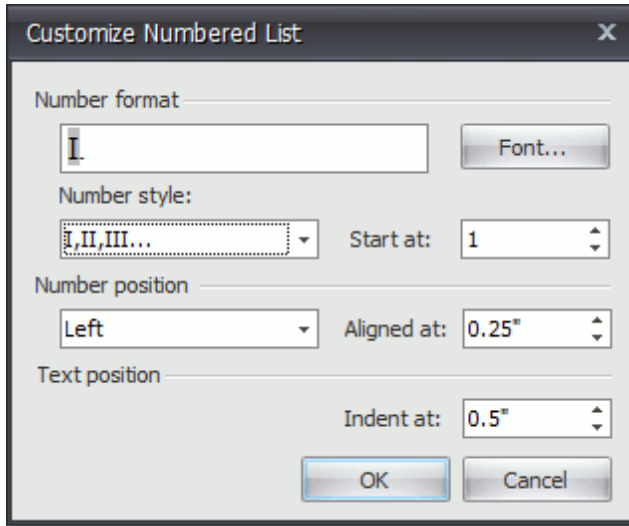
...you will get the list style as illustrated below.
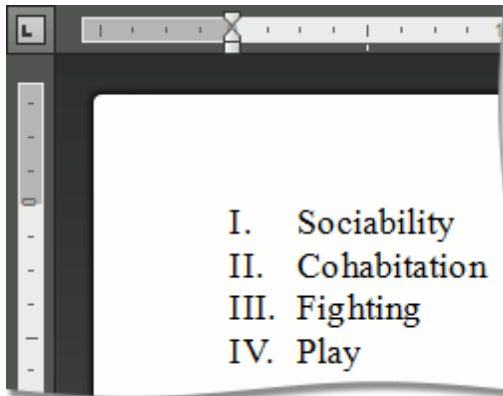
Bulleted Lists

Create a Bulleted List as You Type

1. Point to the position in a document from where you want to begin your list.

2. Click the **Bullets** [icon] button on the **Paragraph** <u>toolbar</u>.
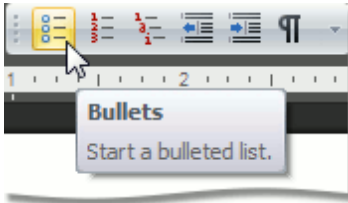
3. Type the text.
4. Press **ENTER** to create the next item of the list.
5. To finish the list, press **ENTER** twice.

Make a Bulleted List from the Selected Text

You can add bullets to existing lines of text in two ways. The first method is to use the **Paragraph** toolbar:

1. Select the text lines that you want to transform into a list.

2. Click the **Bullets** [icon] button on the **Paragraph** toolbar.

Another way to do the same thing is to use the <u>context menu</u>:

1. Select the text to be transformed into a list.

2. Right-click within the document and select the **Bullets and Numbering** item from the invoked context menu.
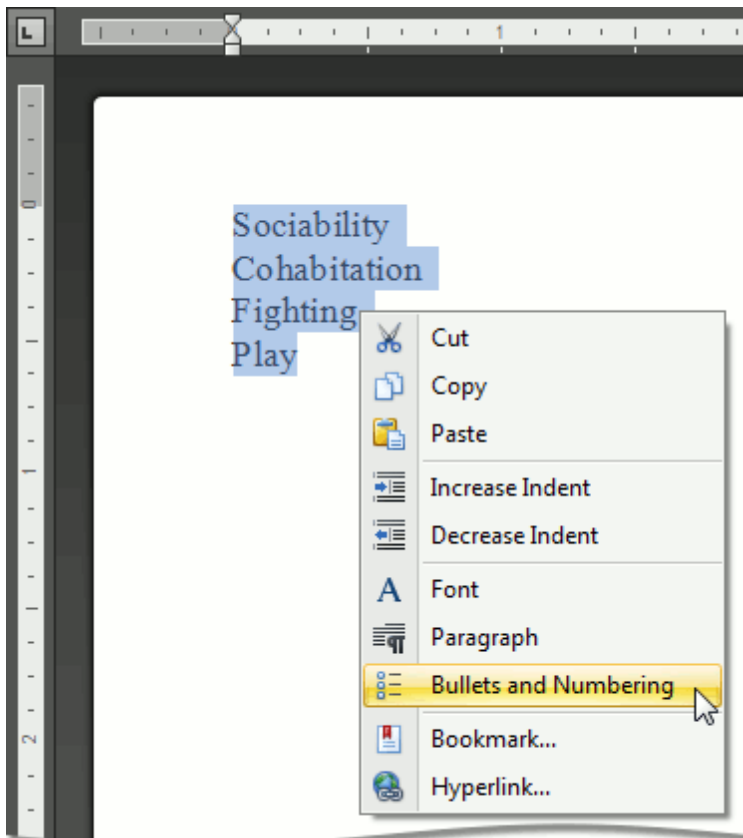
3. In the invoked **Bullets and Numbering** dialog, click the **Bulleted** tab and choose the list style that you

want to apply.
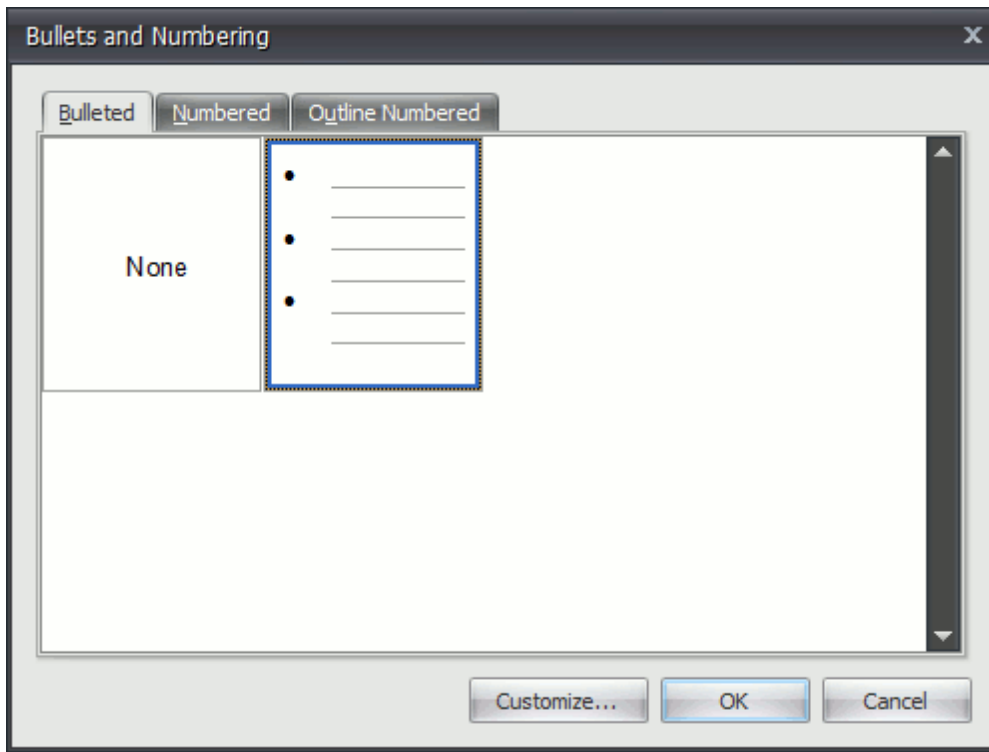
Create Your Own List Style

You can create your own style for a bulleted list on the basis of one of the existing list styles, by changing various list parameters.

1. Select the bulleted list (or text to be transformed into the bulleted list) to which you want to apply your own style.
2. Right-click within the document and select the **Bullets and Numbering** item from the resulting context menu. The **Bullets and Numbering** dialog will be displayed.
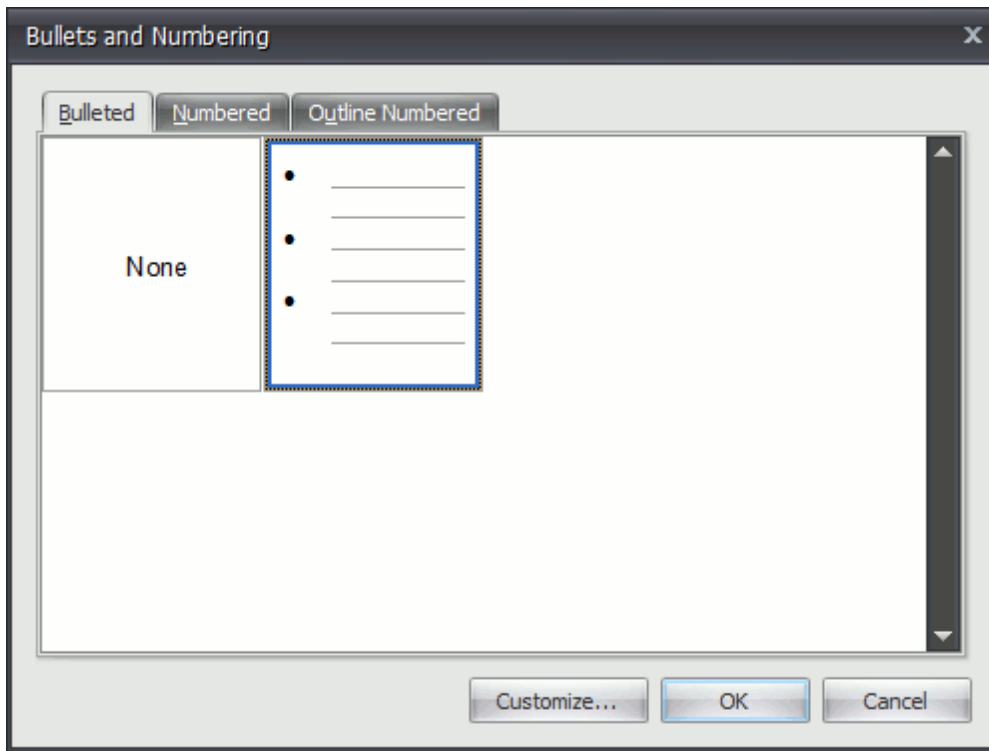
3. Click the **Bulleted** tab, choose one of the existing styles and click **Customize...**. The **Customize Bulleted List** dialog will be invoked.
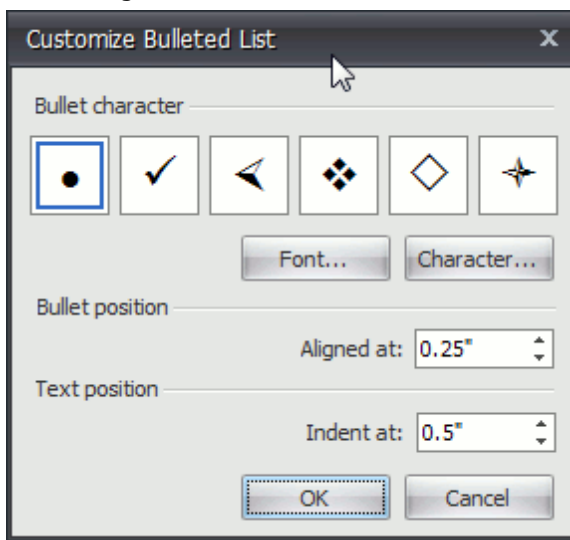
Note

The **Customize...** button is disabled if the **None** item of the **Bullets and Numbering** dialog is selected.
This item is selected automatically when you invoke the **Bullets and Numbering** dialog for lines of text, rather than for a list.

4. In this dialog, change different list parameters to create your own list style.

For instance, if you specify list parameters in the following way,...
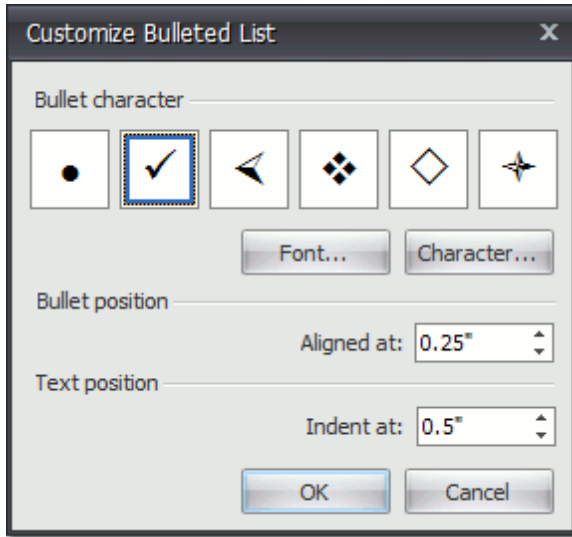
...you will get the list style as illustrated below.
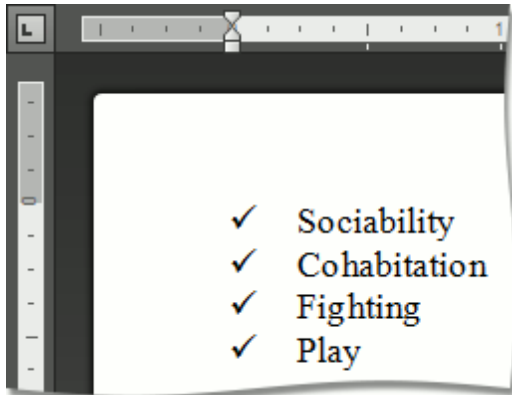
Multilevel Lists

Create a Multilevel List as You Type

1. Point to the position within a document from which you want to begin your list.

2. Click the **Multilevel list** button on the **Paragraph** toolbar.
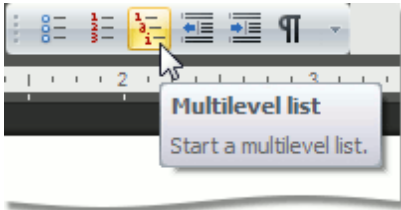
3. Type the text.

4. To change levels of the list, press **TAB** and **SHIFT+TAB**, or click the **Increase Indent** and **Decrease Indent** buttons on the **Paragraph** toolbar. Press **ENTER** to create the next item on the current level.

5. To finish the list, press **ENTER** twice.

Make a Multilevel List from the Selected Text

You can make multilevel list from existing lines of text in two ways. The first one is to use the **Paragraph** toolbar:

1. Select the text lines that you want to transform into a list.

2. Click the **Multilevel list** button on the **Paragraph** toolbar.

3. Use **TAB** and **SHIFT+TAB**, or the **Increase Indent** and **Decrease Indent** buttons of the **Paragraph** toolbar to change levels.

Another way to do the same thing is to use the context menu:

1. Select the text to be transformed into a list.

2. Right-click within the document and select the **Bullets and Numbering** item from the invoked context menu.
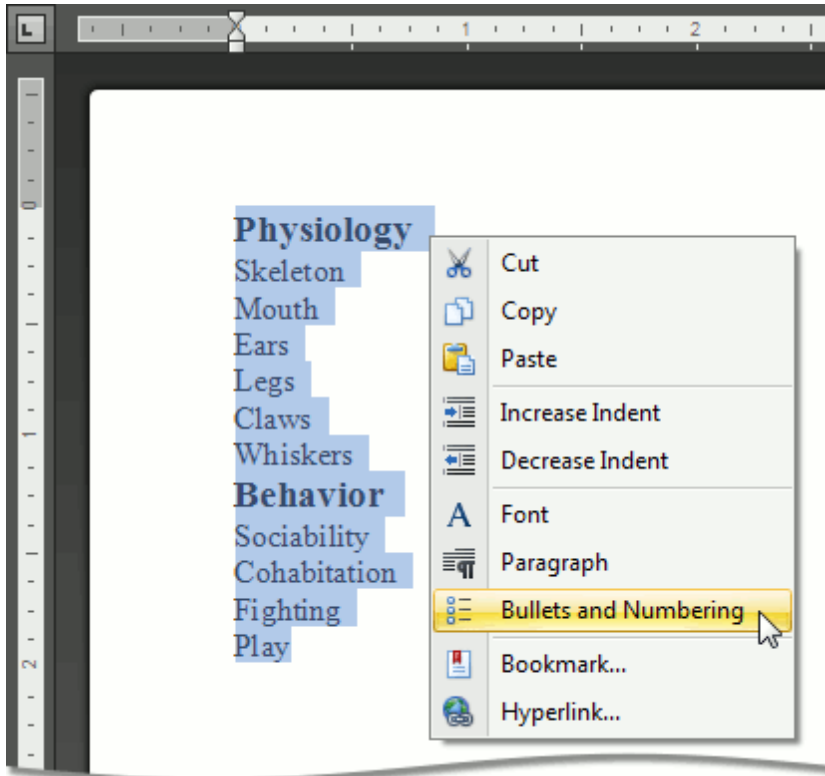
3. In the invoked **Bullets and Numbering** dialog, click the **Outline Numbered** tab and choose the list style that you want to apply.
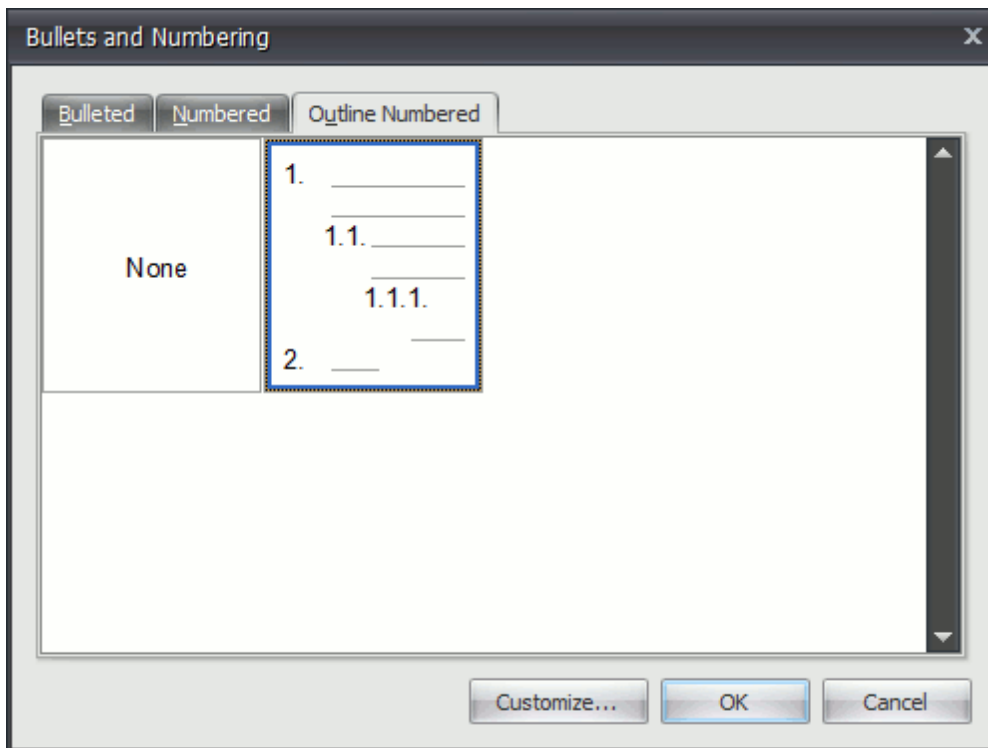
4. Use **TAB** and **SHIFT+TAB**, or the **Increase Indent** and **Decrease Indent** buttons of the **Paragraph** toolbar to change levels.

Create Your Own List Style

You can create your own style for a multilevel list on the basis of one of the existing list styles, by changing

different list parameters.

1. Select the multilevel list (or text to be transformed into the multilevel list) to which you want to apply your own style.

2. Right-click within the document and select the **Bullets and Numbering** item from the resulting context menu. The **Bullets and Numbering** dialog will be displayed.
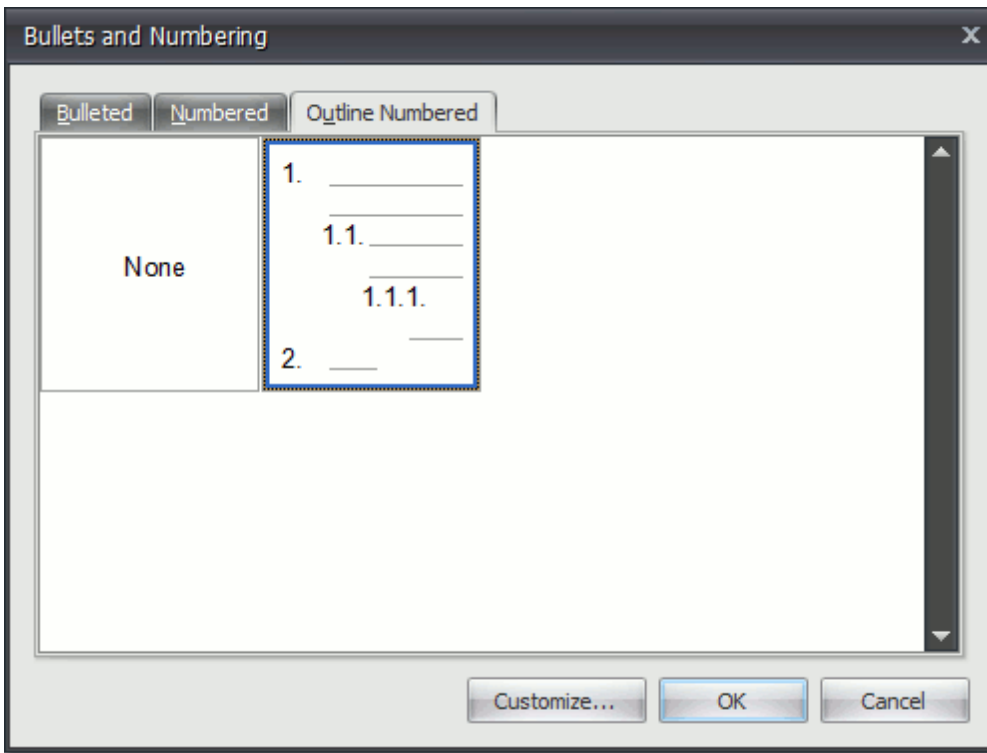
3. Click the **Outline Numbered** tab, choose one of the existing styles and click **Customize...**. The **Customize Outline Numbered List** dialog will be invoked.
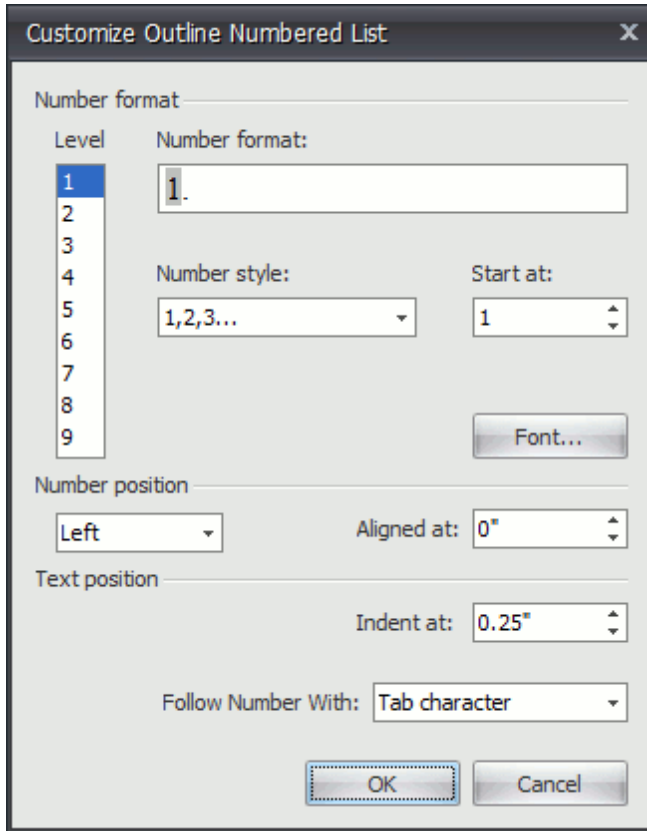
Note

The **Customize...** button is disabled if the **None** item of the **Bullets and Numbering** dialog is selected.
This item is selected automatically, when you invoke the **Bullets and Numbering** dialog for lines of text, rather than for a list.

4. In this dialog, change different list parameters to create your own list style.

   For instance, if you specify list parameters in the following way,...
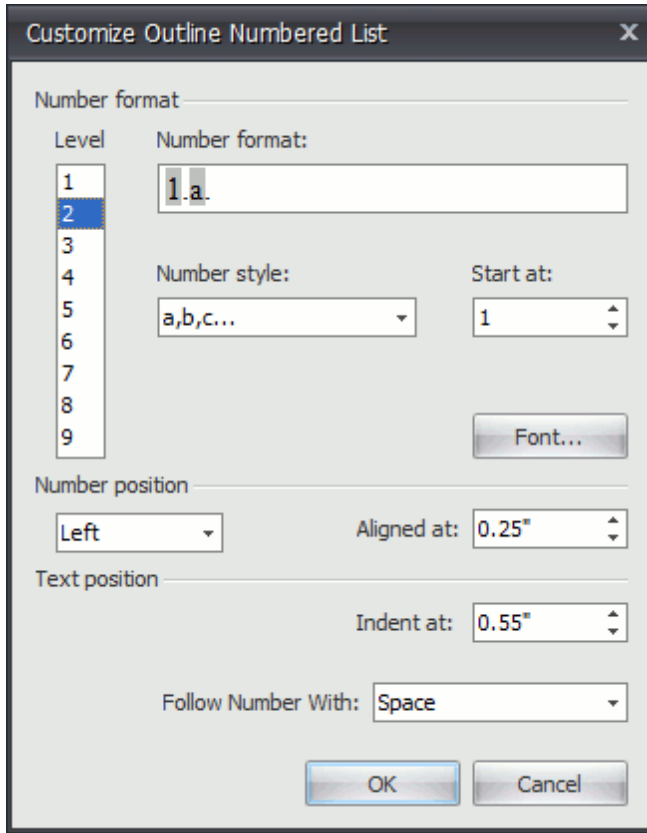
...you will get the list style as illustrated below.
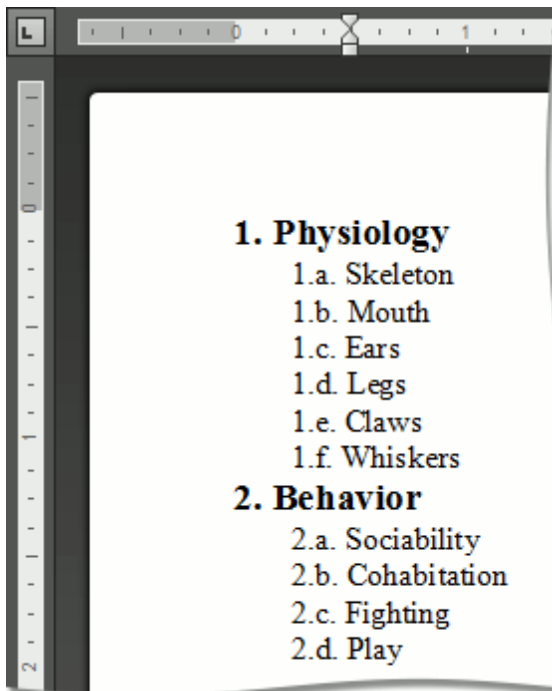
5. Use **TAB** and **SHIFT+TAB**, or the **Increase Indent** and **Decrease Indent** buttons of the **Paragraph** toolbar, to change levels.

Tables

Insert a Table

Insert a Table

1. Click the position within a document where you want to insert a table.
2. Click the **Table** button on the **Tables** <ins>toolbar</ins>.
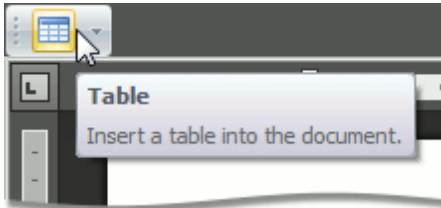
3. In the invoked **Insert Table** dialog, select the required number of table rows and columns.
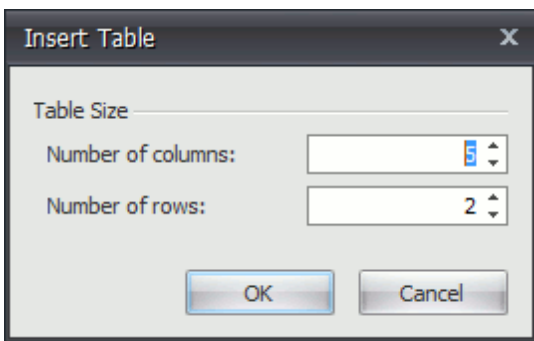
Insert a Table inside Another Table

Tables that are located inside other tables are called nested tables.

To insert a nested table:

1. Point to the position within a table cell where you want to insert a table.
2. <ins>Insert a table.</ins>

Add and Remove Table Borders

Add Borders

- **Add Borders to the Whole Table**

  .1. Select a table.

  .2. Click the **Borders** button on the **Table Styles** toolbar and select one of the available border sets.
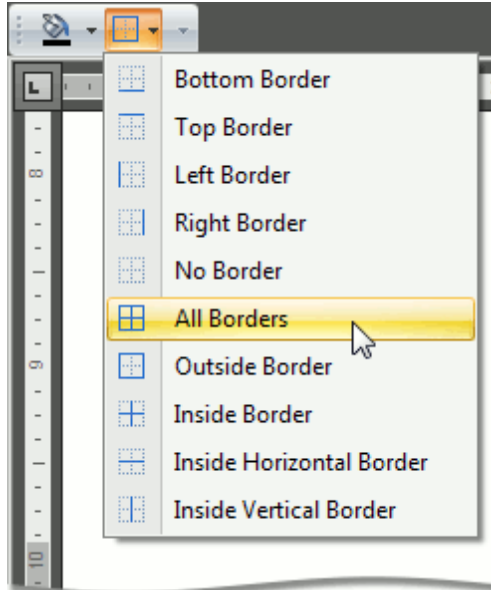
- **Add Borders to Specified Cells Only**

  .1. Display gridlines to view boundaries of the table cells and select cells to be provided with borders.
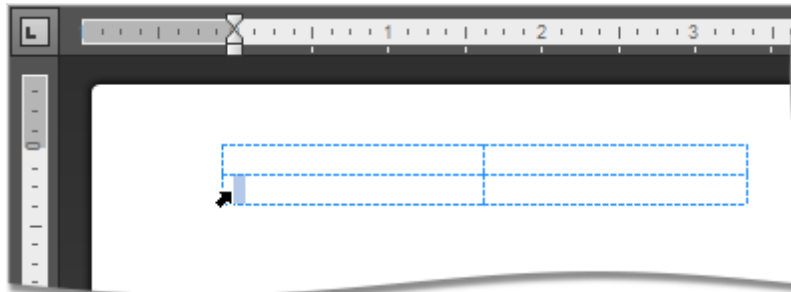
  .2. Click the **Borders** button on the **Table Styles** toolbar and select the border that you want to apply to cells.

Remove Table Borders

- **Remove Borders from the Whole Table**

  .1. Select a table.

  .2. Click the **Borders** button on the **Table Styles** toolbar and select **No Borders** from the invoked list.
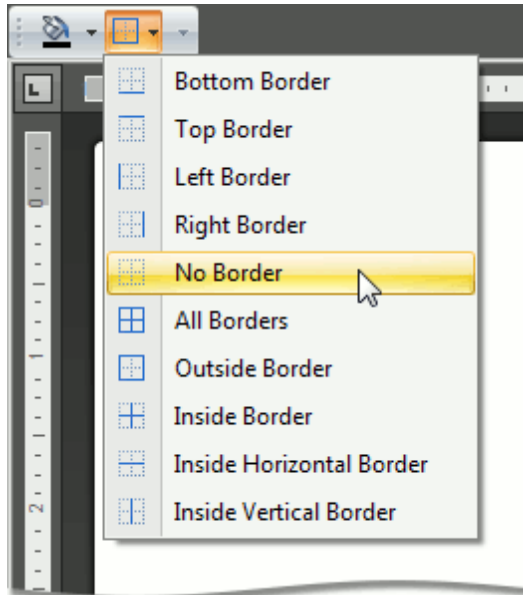
- **Remove Borders from Specified Cells Only**

  .1.<u>Display gridlines</u> to view boundaries of the table cells and <u>select cells</u> from which you want to remove borders.
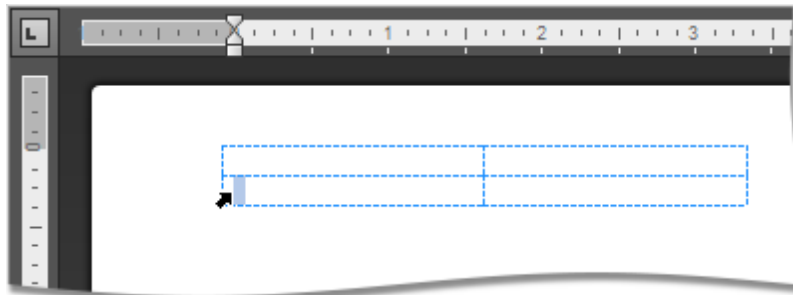
  .2. Click the **Borders** button on the **Table Styles** toolbar and select **No Borders** from the invoked list.

Show or Hide Gridlines

Gridlines show boundaries of a table cells when <u>no borders are applied</u>. Unlike borders, gridlines are shown on screen only and never printed.

To show or hide table gridlines, click the **View Gridlines** button on the **Table** <u>toolbar</u>.
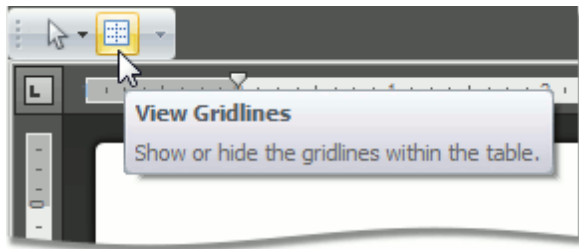
Customize a Style of Cell Borders

Before you add borders to table cells, you can specify a style to be applied to borders.

To set a style for cell borders, do the following:

1. Select a table or specific cells whose borders you want to customize.
2. Change required options (**Line Style**, **Line Weight**, **Pen Color**) on the **Draw Borders** toolbar.
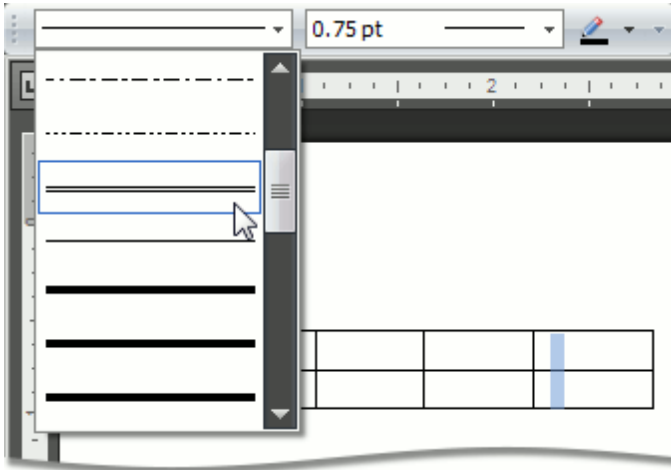
3. Add borders using the **Table Styles** toolbar.

Select a Cell, Row or Column

Select a Cell

You can select a table cell in one of the following ways.

- Double-click a cell.
- Click the left edge of a cell.
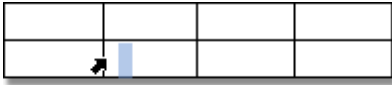
- Click a cell to be selected. Then click the **Select** button on the **Rows & Columns** toolbar and choose **Select Cell** from the invoked list.
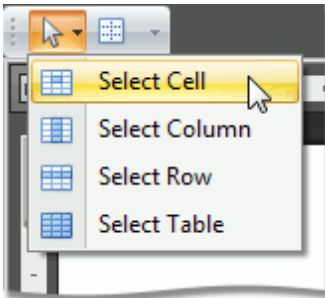
Note

To select multiple cells, click the left edge of a cell and then drag it across other cells.

Select a Row

To select a table row you can do one of the following.

- Click to the left of a row.
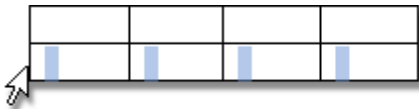
- Click a cell included into a row to be selected. Then click the **Select** button on the **Rows & Columns** toolbar and choose **Select Row** from the invoked list.
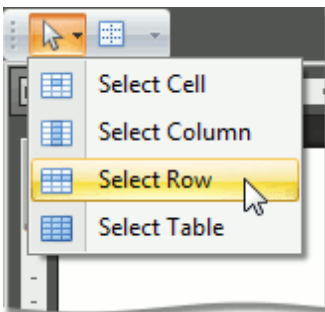
Select a Column

To select a table column you can do one of the following.

- Click the top edge of a column.
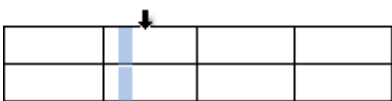
- Click a cell included into a column to be selected. Then click the **Select** button on the **Rows & Columns**

toolbar and choose **Select Column** from the invoked list.
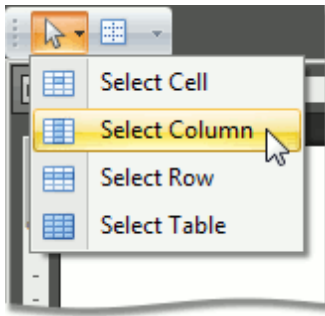
Select a Table

Click any cell of a table. Then click the **Select** button on the **Table** toolbar and choose the **Select Table** item from the invoked list.
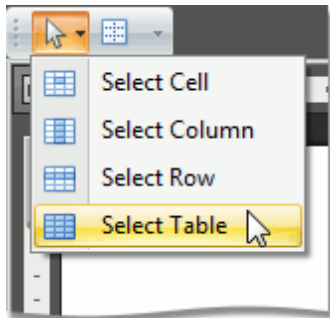
Insert a Cell, Row or Column

Insert a Cell

1. Click a cell located directly to the right or below where you want to insert a cell, and then click the **Insert Cells** button on the **Rows & Columns** [toolbar](#).

- or -
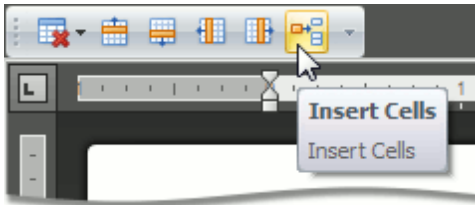
Right-click a cell relative to which you want to add a new cell, select the **Insert** item from the context menu and click **Insert Cells**.
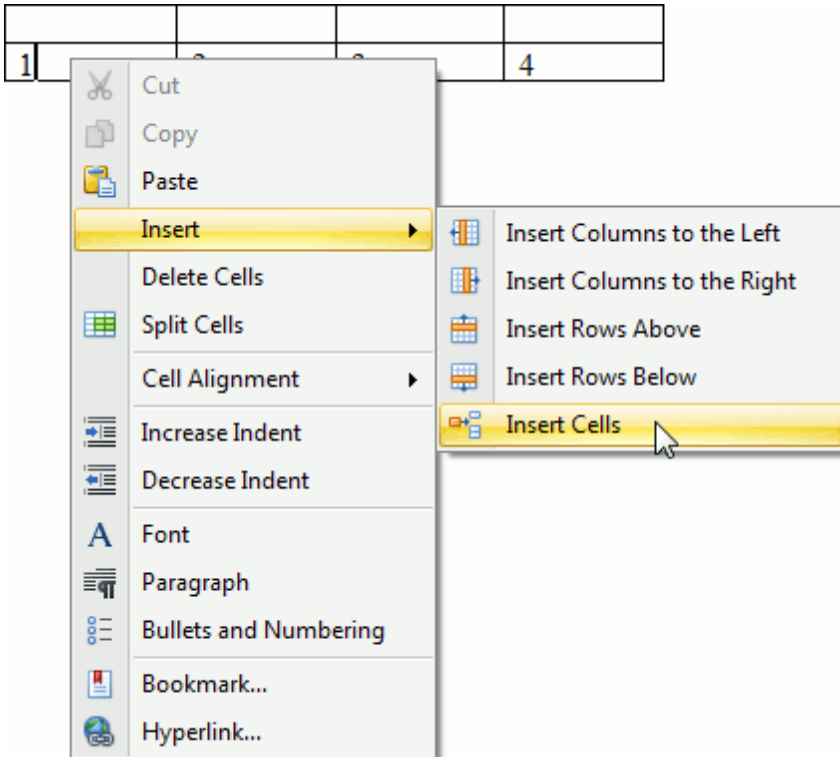
2. In the invoked **Insert Cells** dialog choose one of the available options:

Option	Description	Example
Shift cells right	Insert a new cell just to the left of the selected cell and move	
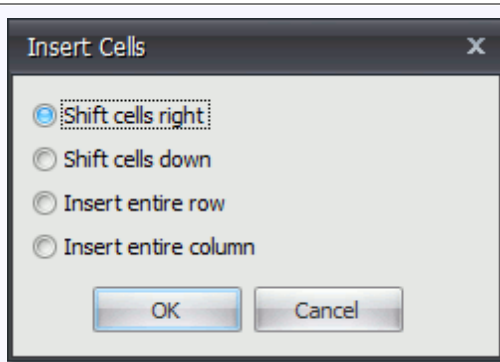
Insert Cells ✕ ⦿ Shift cells right ◯ Shift cells down ◯ Insert entire row ◯ Insert entire column OK　Cancel	the select ed cell and all other cells follow ing this cell in that row to the right.	
Shift cells down Insert Cells ✕ ◯ Shift cells right ⦿ Shift cells down ◯ Insert entire row ◯ Insert entire column OK　Cancel	Insert a new cell in the select ed cell's place and move other cells in that colum n down one row each. A new row will be adde d at the botto m of the table to includ e the last existi ng cell. Remai ning cells in this new row will be empty	
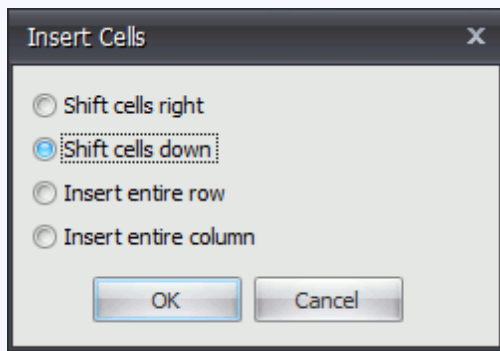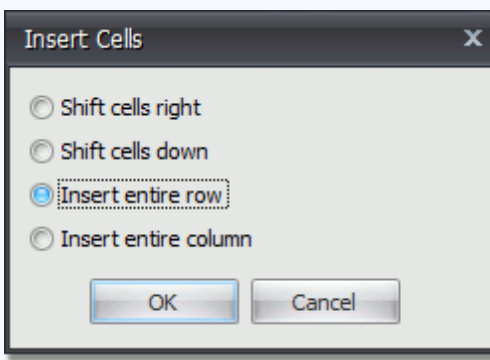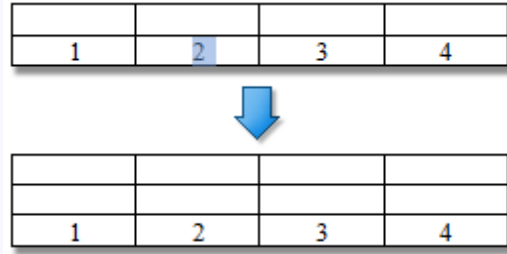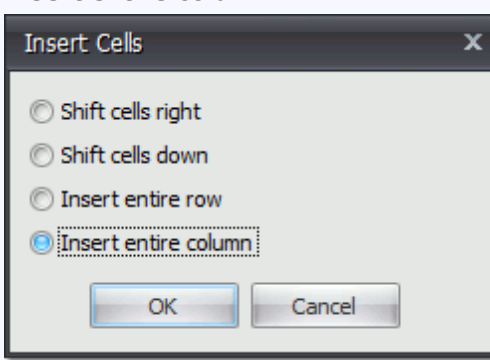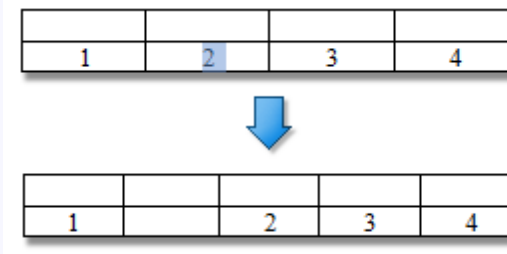
	.	
Insert entire row	Insert a new row just above the row containing the selected cell.	
Insert entire column	Insert a new column just to the left of the column containing the selected cell.	

Insert a Row

1. Click a cell located directly below or above where you want to insert a new row.
2. Do one of the following:
   - To add a new row just above the row containing the selected cell, click the **Insert Rows Above** button on the **Rows & Columns** toolbar.
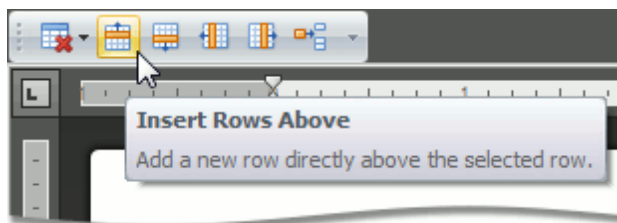
   - To add a new row just below the row containing the selected cell, click the **Insert Rows Below** button on the **Rows & Columns** toolbar.

- or -
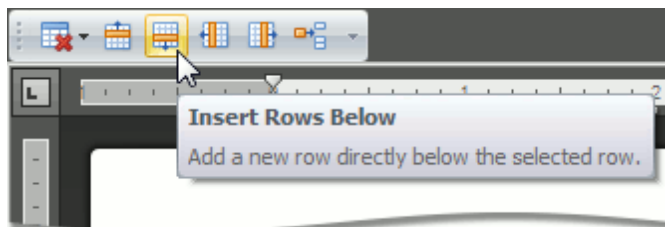
1. Right-click a cell relative to which you want to insert a row.
2. Click the **Insert** item in the context menu and select **Insert Rows Above** or **Insert Rows Below**.
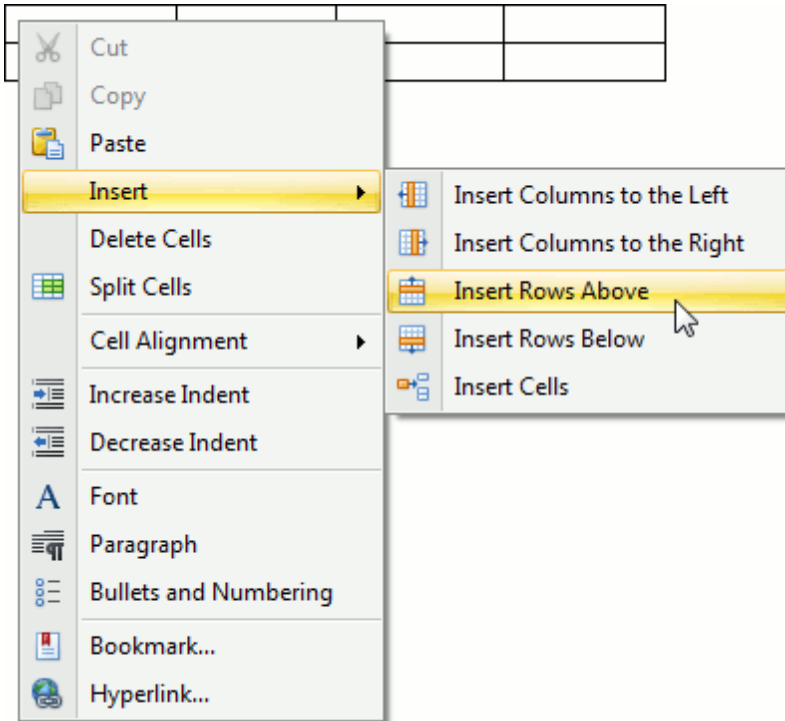
Insert a Column

1. Click a cell located directly to the right or left of where you want to insert a new column.

2. Do one of the following:

   - To add a new column just to the left of the column containing the selected cell, click the **Insert Columns to the Left** button on the **Rows & Columns** toolbar.

   - To add a new column just to the right of the column containing the selected cell, click the **Insert Columns to the Right** button on the **Rows & Columns** toolbar.

- or -

1. Right-click a cell relative to which you want to insert a column.

2. Click the **Insert** item in the context menu and select **Insert Columns to the Left** or **Insert Columns to the Right**.

Cut

Copy

Paste

Insert   ►   Insert Columns to the Left

Delete Cells   Insert Columns to the Right

Split Cells   Insert Rows Above

Cell Alignment   ►   Insert Rows Below

     Insert Cells

Increase Indent

Decrease Indent

Font

Paragraph

Bullets and Numbering

Bookmark...

Hyperlink...
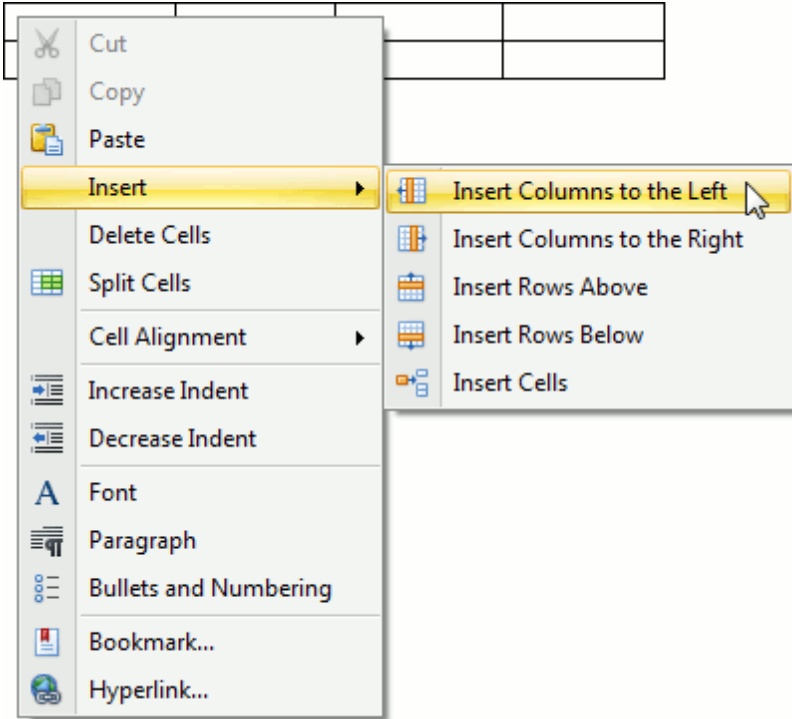
Delete a Cell, Row or Column

Delete a Cell

1. Click a cell to be deleted and then click the **Delete** button on the **Rows & Columns** toolbar and select **Delete Cells** from the invoked list.

   - or -
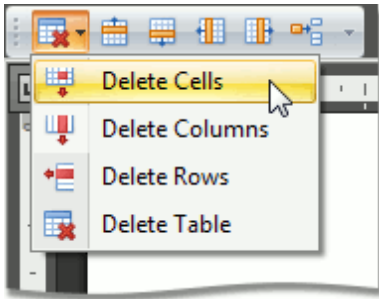
   Right-click a cell to be deleted and select **Delete Cells** from the context menu.
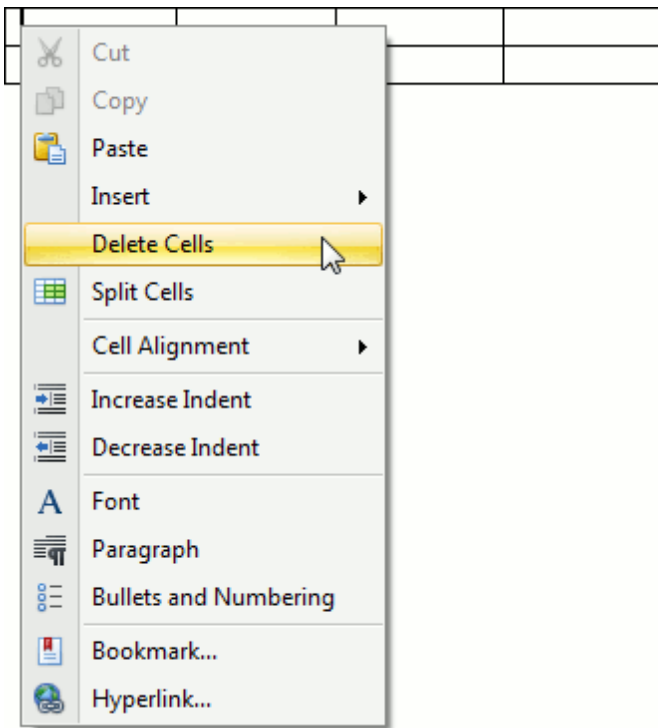
2. In the invoked **Delete Cells** dialog choose one of the available options:

Option	Des crip tion	Example

Shift cells left	Delete the selected cell and move all other cells in the row to the left.	

Delete Cells ✕

- ⦿ Shift cells left
- ○ Shift cells up
- ○ Delete entire row
- ○ Delete entire column

[OK] [Cancel]

1	2	3	4
11	22	33	44
111	222	333	444

⬇

1	2	3	4
11	33	44	
111	222	333	444

Shift cells up	Delete the selected cell and move all other cells in the column up.	

Delete Cells ✕

- ○ Shift cells left
- ⦿ Shift cells up
- ○ Delete entire row
- ○ Delete entire column

[OK] [Cancel]

1	2	3	4
11	22	33	44
111	222	333	444

⬇

1	2	3	4
11	222	33	44
111		333	444

Delete entire row	Delete a row containing the selected cell.	

Delete Cells ✕

- ○ Shift cells left
- ○ Shift cells up
- ⦿ Delete entire row
- ○ Delete entire column

[OK] [Cancel]

1	2	3	4
11	22	33	44
111	222	333	444

⬇

1	2	3	4
111	222	333	444

Delete a Row

1. Select a row to be deleted or click on one cell included into that row.
2. Click the **Delete** button on the **Rows & Columns** toolbar and select **Delete Rows** from the invoked list.
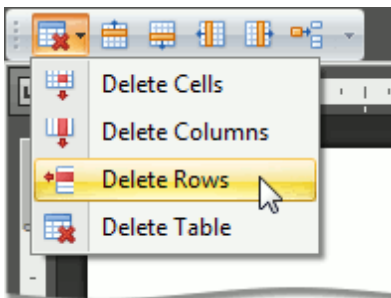
- or -

1. Select a row to be deleted and right-click it.
2. Select **Delete Rows** from the invoked context menu.
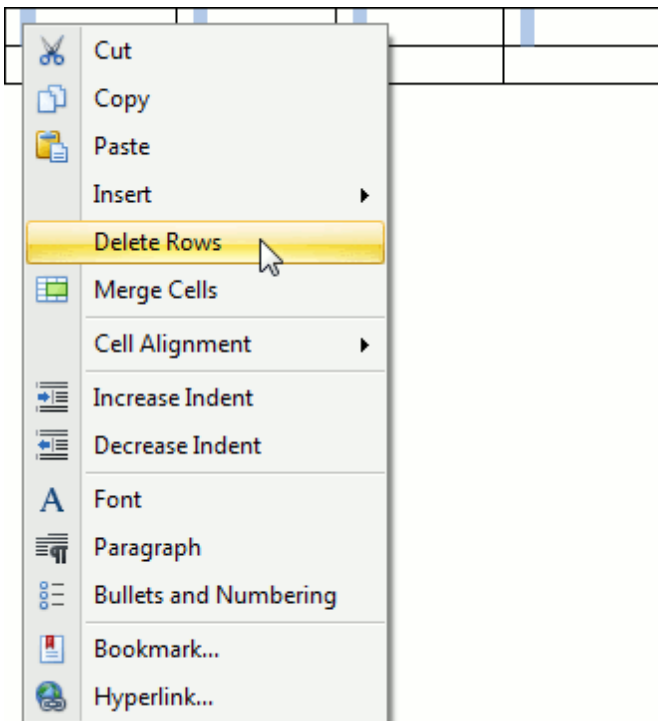
Delete a Column

1. Select a column to be deleted or click on one cell included into that column.
2. Click the **Delete** button on the **Rows & Columns** toolbar and select **Delete Columns** from the invoked list.
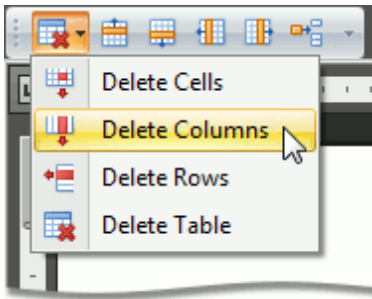
- or -

1. Select a column to be deleted and right-click it.
2. Select **Delete Columns** from the invoked context menu.
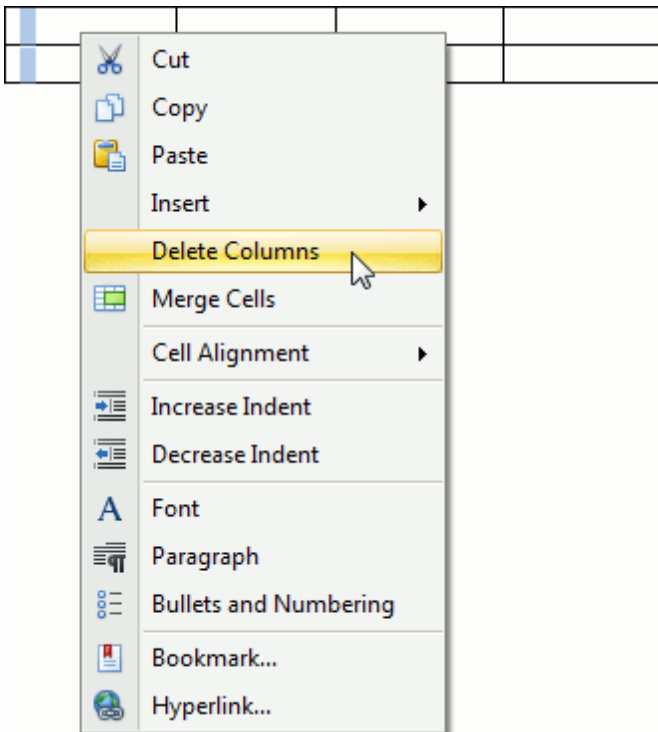
Merge or Split Cells

Merge Cells

1. Select cells that you want to merge. For example, you can select multiple cells, a whole row or column.
2. Click the **Merge Cells** button on the **Merge** toolbar.
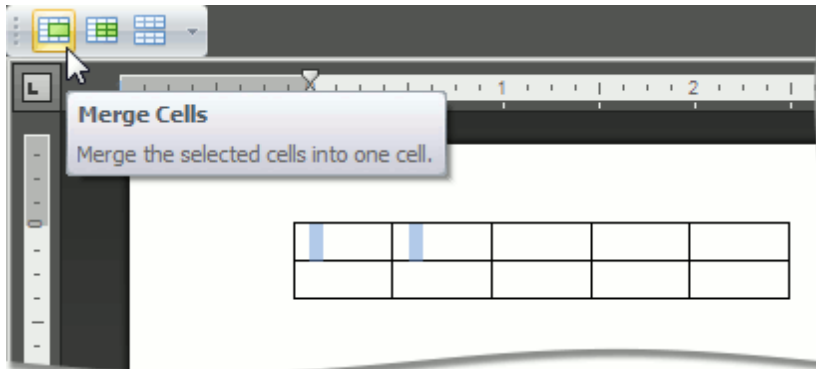
Note

The **Merge Cells** button becomes available, after you have selected the table cells to be merged.

Split Cells

1. Click a cell or select multiple cells that you want to split.
2. Click the **Split Cells** button on the **Merge** toolbar.
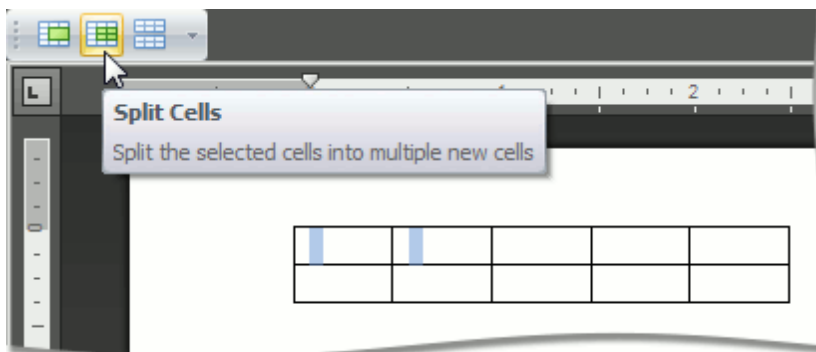
3. In the invoked **Split Cells** dialog, set the number of columns and rows into which the selected cells should be split.

   If multiple cells are selected, you can first merge these cells and then spit the newly created cell into the specified number of columns and rows (select the **Merge cells before split** check box in the dialog) ...
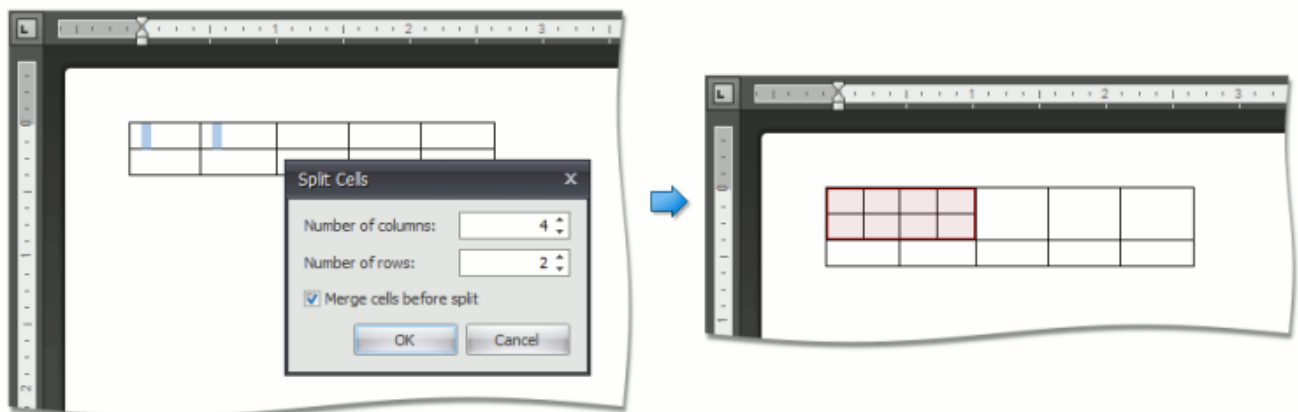
... or each of the selected cells can be split (clear the **Merge cells before split** check box).
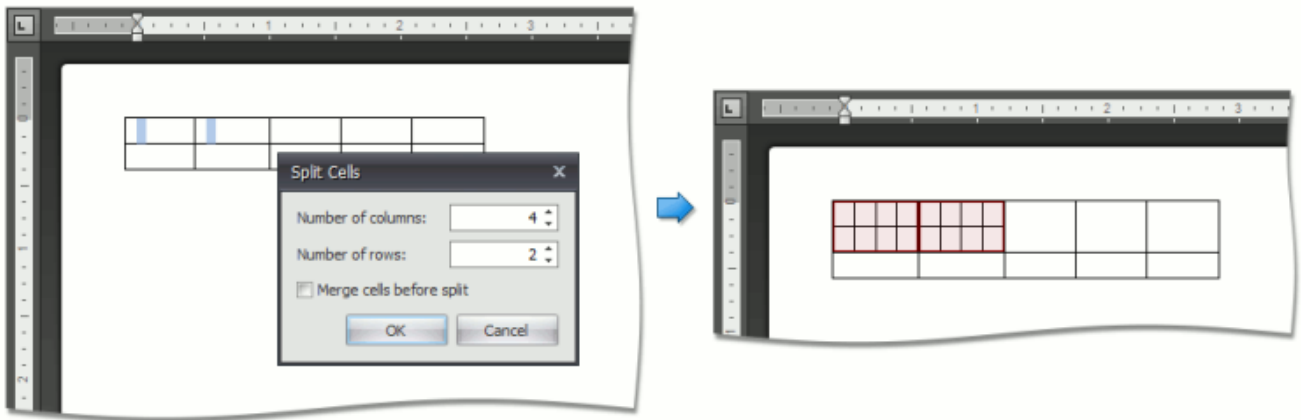
Split Table

1. Click any cell included into a row relative to which you want to split a table. This row will be the first row of the second table.
2. Click the **Split Table** button on the **Merge** toolbar.
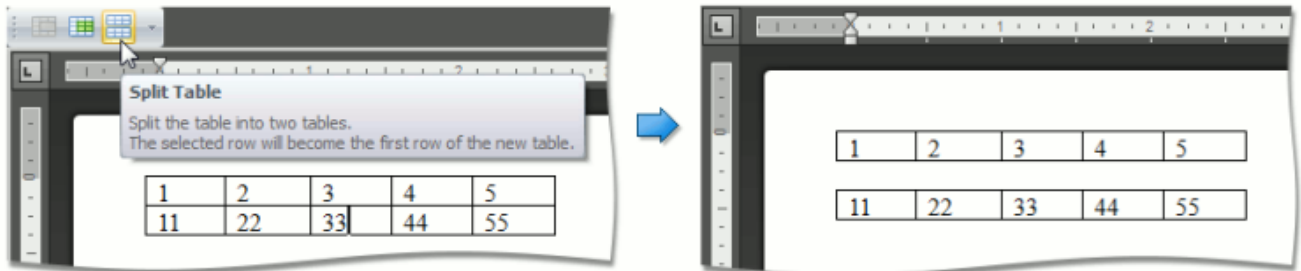
Align Text in Table Cells

By default, text is aligned to the top left corner of a table cell. You can change both the vertical and horizontal alignment of text in a table cells.

1. Click a cell or select multiple cells containing text that you want to align.
2. Click one of the available buttons on the **Alignment** toolbar.
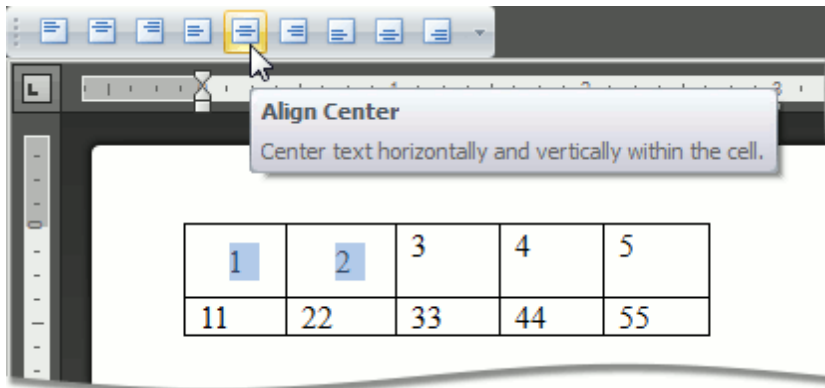
Set Background Color of Cells

1. Select a table or specific cells whose background color you want to set.
2. Click the **Shading** arrow and select a color to fill-in the background of the selected cells.

Header and Footer

Headers and footers are the areas at the bottom or on the top of each page in the document. You can insert text or graphics into headers and footers (for example, page numbers, a company logo, the document title or file name, or the author's name).

Insert a Header or Footer

1. Click the **Header** or **Footer** button on the **Header & Footer** toolbar.
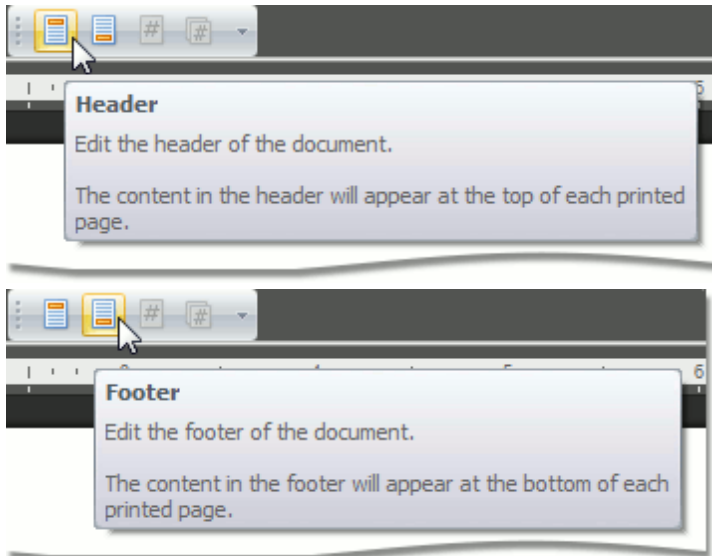
2. Type text or insert graphics in the header or footer area.
3. To switch between the header and footer areas, use the **Go to Header** and **Go to Footer** buttons of the **Navigation** toolbar.
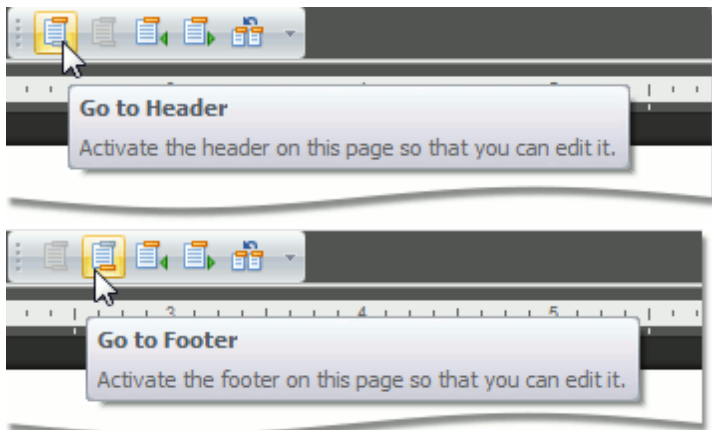
4. If necessary, you can align and format text in the header and footer areas, as required.
5. To finish, double-click anywhere in the document, or click **Close** on the **Close** toolbar.
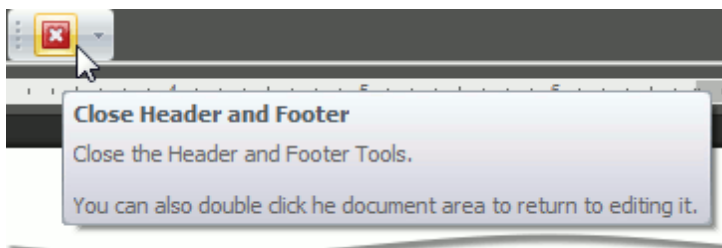
Create a Different Header or Footer for the First Page

You can skip the header or footer on the first page, or create a unique header or footer for the first page of the document.

1. Double-click the header or footer area on the first page of the document.

2. Click the **Different First Page** button on the **Options** toolbar.
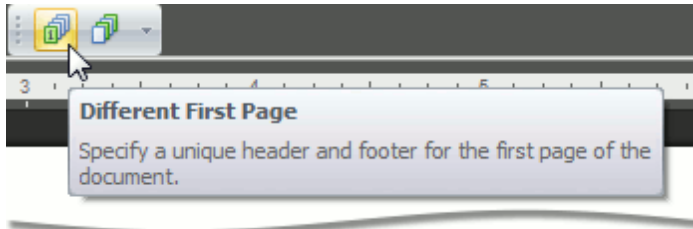
3. If necessary, click the **Show Previous** and **Show Next** buttons on the **Navigation** toolbar to activate the **First Page Header** and **First Page Footer** areas.
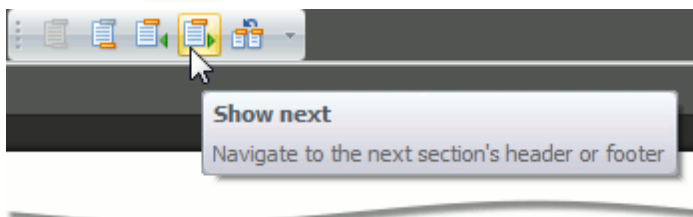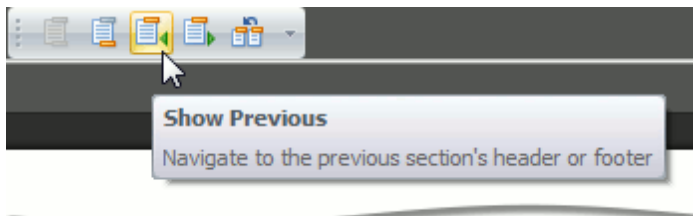
4. Change the contents of the header or footer on the first page (or delete the contents of the header or footer to use no header or footer on the first page of the document).

Create a Different Header or Footer for Odd and Even Pages

1. Click the **Header** or **Footer** button on the **Header & Footer** toolbar.
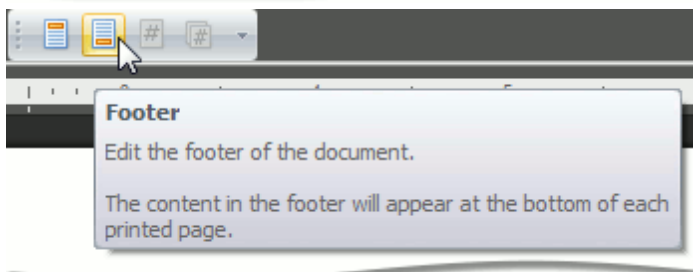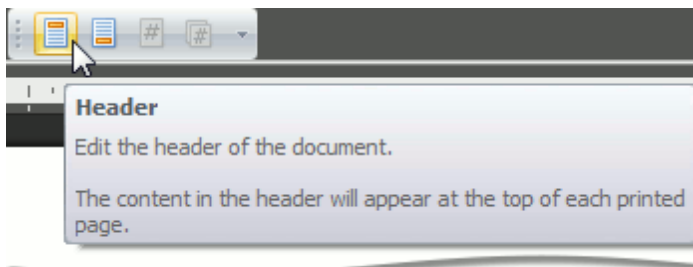
2. Click the **Different Odd & Even Pages** button on the **Options** toolbar.
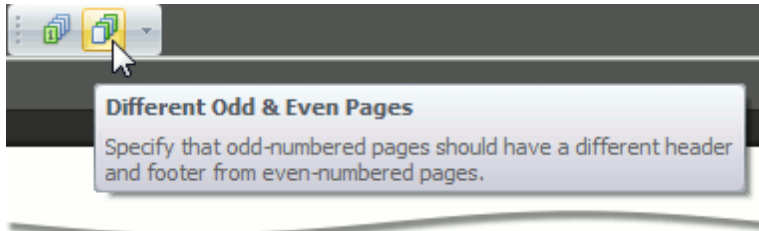
3. If necessary, click the **Show Previous** and **Show Next** buttons on the **Navigation** toolbar to move into the header or footer areas of odd or even pages.
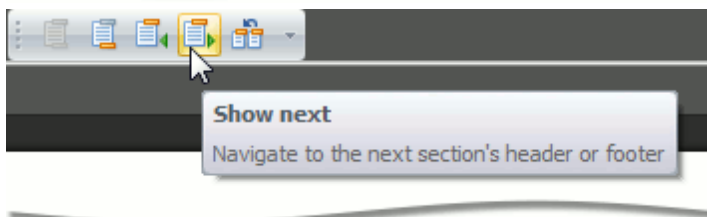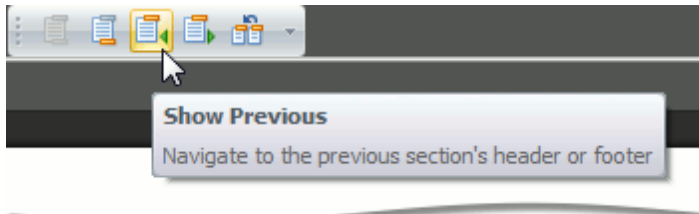
4. Create the header or footer for odd pages in the **Odd Page Header** or **Odd Page Footer** areas and create the header or footer for even pages in the **Even Page Header** or **Even Page Footer** areas.

Embedding Fields (Mail Merge)

The **Mail Merge** feature enables you to use the text retrieved from a data source for filling in the fields in a document template. This feature is useful for letters, catalogs, mailing labels, and for personalizing any kind of document.

Note

If the data source provides formatted text to insert in the merge field, its formatting won't be recognized and properly processed.

To merge data fields in a **Rich Text Editor**'s document, perform the following steps:

- **Prepare a Data Source**

  To perform a mail merge, you need a template and a data source. The template is a document containing fields (placeholders for the information that will be merged). The data source contains the data that will be merged into the fields in the main document, to create the merged documents.

- **Insert Fields**
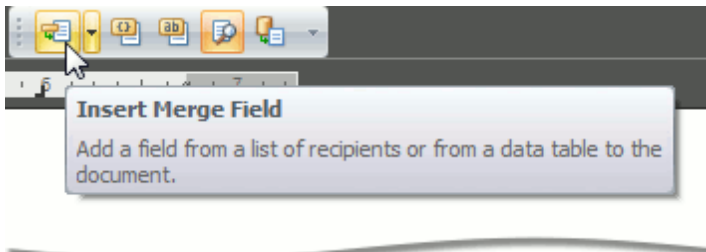
  Then, when an application runs with the mail merge data source attached to the **Rich Text Editor**, you can select the field to insert by clicking the **Insert Merge Field** button on the **Mail Merge** toolbar. The drop-down list or a dialog window containing field names is shown:
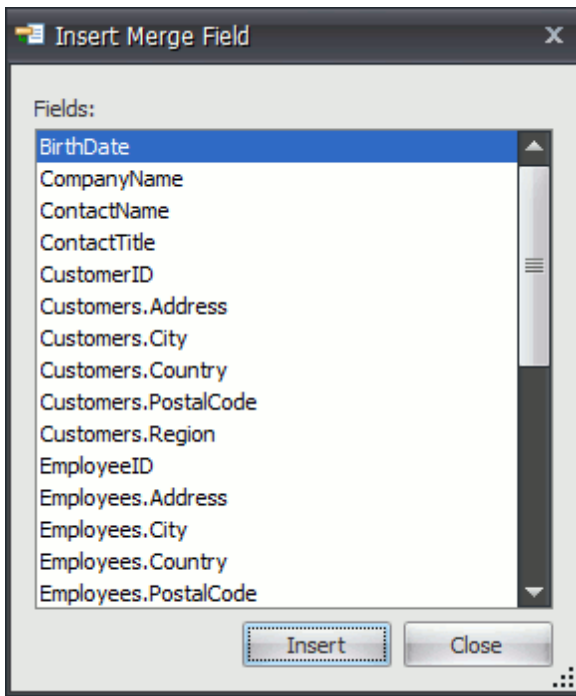
  Choose the required field and click **Insert**. Then, the field is inserted at the cursor position.

- **Preview Field Values**

  The **Show All Field Codes** button on the **Mail Merge** toolbar displays field codes for all fields in the

document.
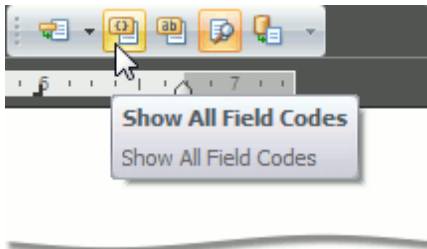
The **Show All Field Results** button on the **Mail Merge** toolbar displays field placeholders if the **View Merged Data** button is switched off. If this button is switched on, then the current record of the data source is displayed in place of the field.
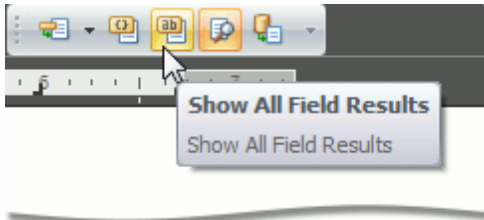
The merge field code looks like the following:

{MERGEFIELD "*field name*" [* MERGEFORMAT]

The optional * MERGEFORMAT switch, which you can add manually, retains formatting applied to the field.

- **Perform a Merge**

  To finalize the process, you should create the resulting document. To do this, click the **Merge to New Document** button on the **Mail Merge** toolbar.
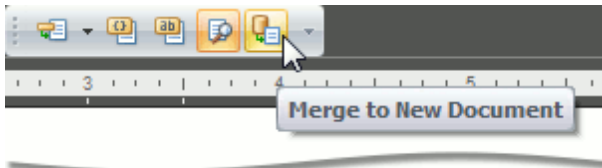
Document Protection

Protect and Unprotect a Document

Add Protection to a Document

To protect a document by specifying a password, follow the steps below.

1. Click the **Protect Document** button on the **Protect** toolbar.
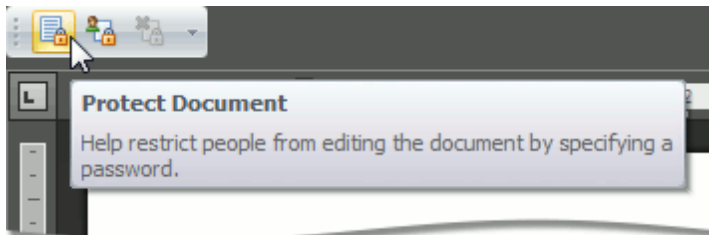
2. In the invoked **Start Enforcing Protection** dialog, specify a password to restrict people from editing a document. To do this, type a password in the **Enter new password (optional)** box and confirm it in the **Reenter password to confirm** box.
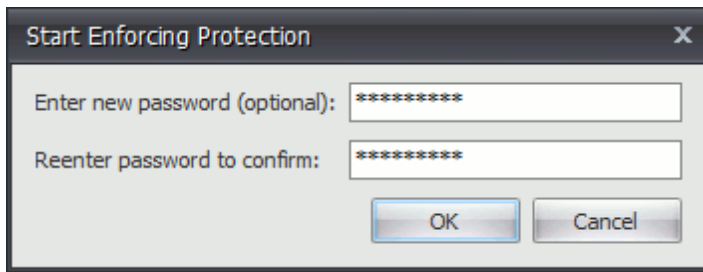
You can also allow particular users to change certain parts of a document.

Give Users Permission to Edit Certain Parts of a Document

Before adding protection to a document, you can specify certain parts of the document where you want to remove the restriction and allow a particular user or group of users to modify these parts.

1. Select a part of a document to be unrestricted.
2. Click the **Range Editing Permissions** button on the **Protect** toolbar.
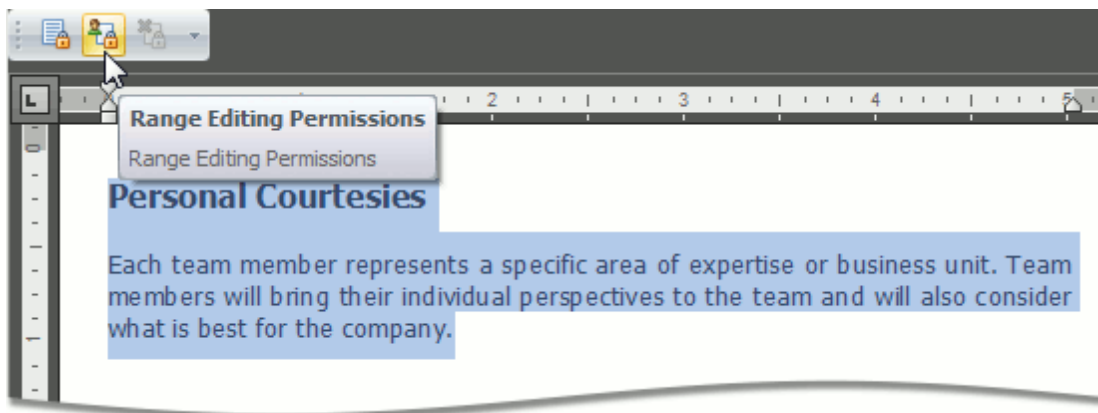
3. In the invoked **Editing Permissions** dialog, select a user or group of users to be allowed to edit the selected part of a document.
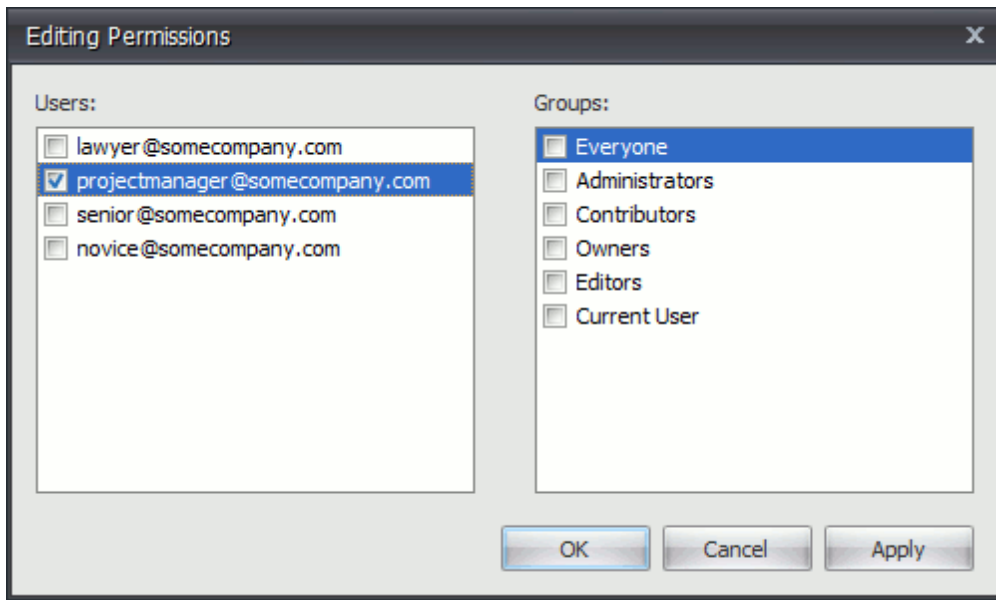
4. Editable ranges will be highlighted and enclosed in brackets.
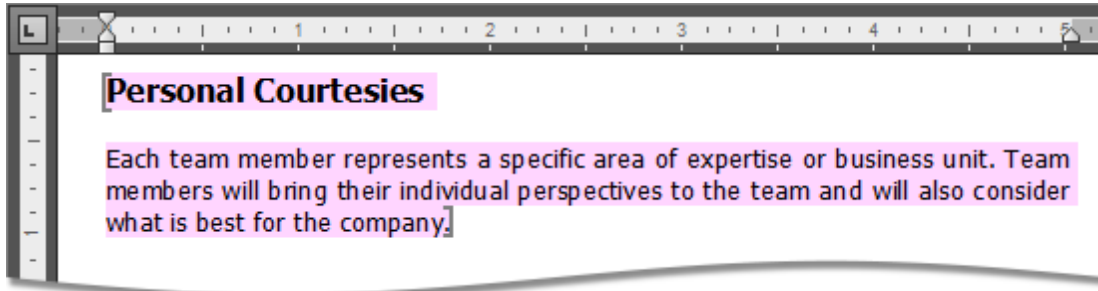
5. Continue to select the document regions and give users permission to edit them.
6. After specifying all required unrestricted parts of a document, add protection.

Remove Protection from a Document

You can unprotect a document, if you know the password for removing document protection.

1. Click the **Unprotect Document** button on the **Protect** toolbar.
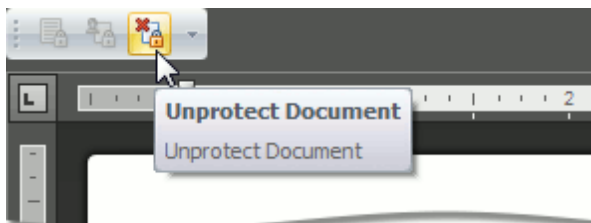
2. In the invoked **Unprotect Document** dialog, type the password.
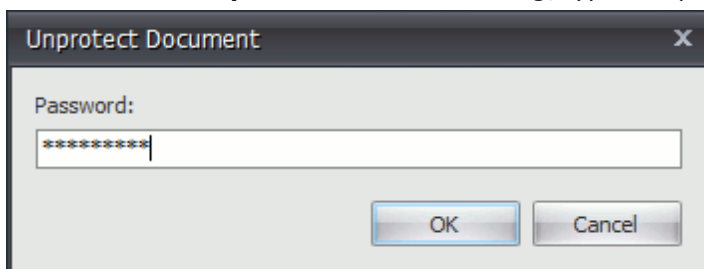
Edit a Protected Document

When a document is protected, it is read-only except for specific unrestricted parts. You can modify a document part if you have been given permission to make changes to this part. Editable document regions can be easily recognized - they are highlighted and enclosed in brackets.

Purpose of the Team Operating Agreement (TOA)

This TOA serves as the guidelines and ground rules to help the project team work most productively together over the course of the project. The TOA is a living document and may be updated as the need arises throughout the project. Any updates will be discussed with and ratified by the project team members.

[Team Communications

- The project's site will house the most up-to-date version of project documents. All team members will be given access.

- Meeting agendas will be e-mailed to project team members at least 24 hours prior to meetings.

Miscellaneous

Insert a Bookmark

A **Bookmark** exposes a document range with a name. The range can have a zero length. The name should start with a letter, and does not have to be unique in the collection of bookmarks in the current document.

To create a new bookmark, place the caret at the chosen location, or select the text to mark, and click the **Bookmark** button on the **Links** toolbar...
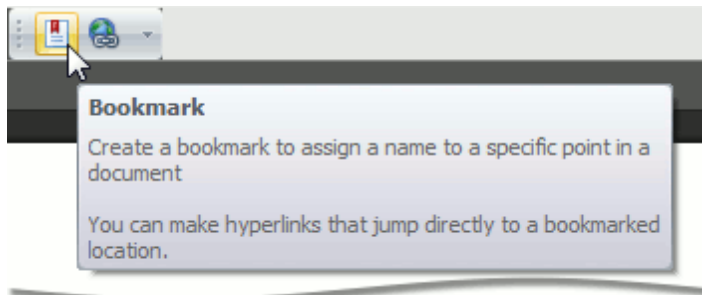
...or choose the **Bookmark...** item from the context menu.
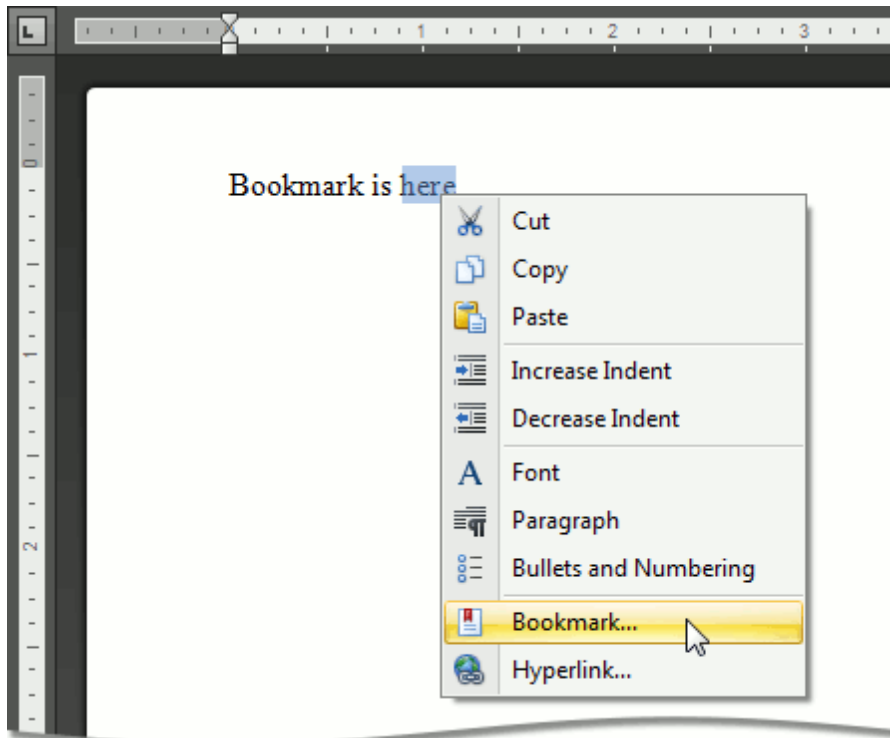
The **Bookmark** dialog will appear.
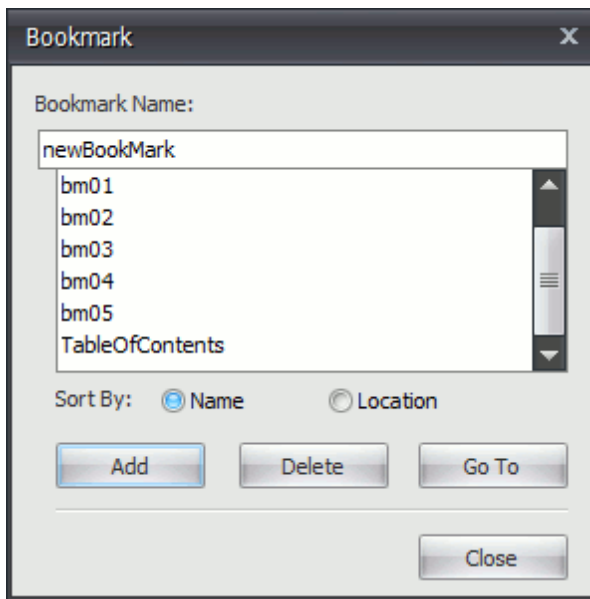
After that, you can insert a hyperlink to make a cross-reference to this bookmark.

Insert a Hyperlink

The **Hyperlink** marks the document range as a hot spot in the document. It can be activated by clicking or pressing **ENTER**, to navigate the specified external URL, file or bookmark within the same document.

To create a new hyperlink, select a range to mark and click the **Hyperlink** button on the **Links** toolbar...
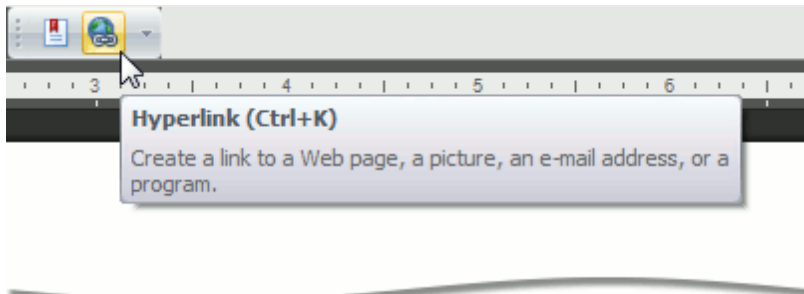
...or select the **Hyperlink...** item from the context menu ...
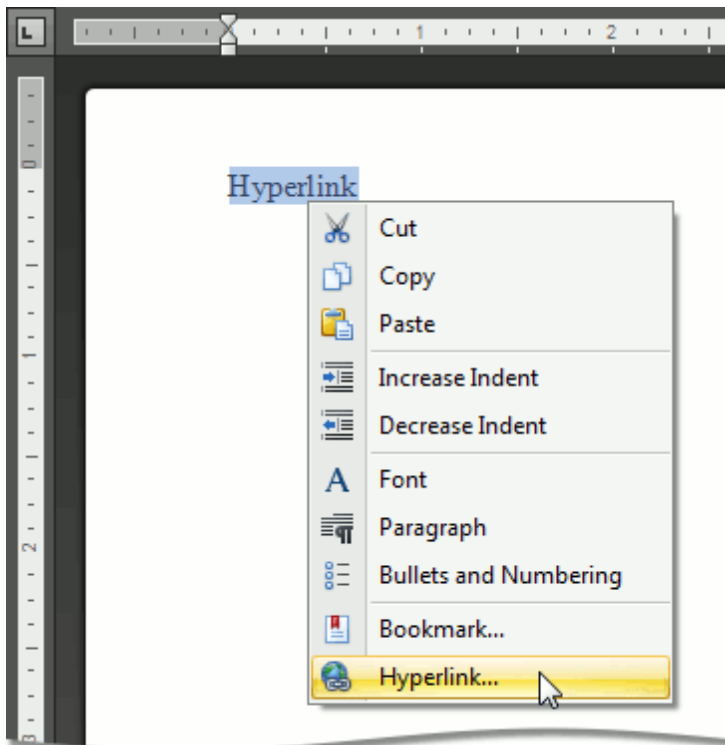
... or use the **CTRL+K** keyboard shortcut.

The **Edit hyperlink** dialog will appear.

Edit hyperlink   X

Text to display: [ANTARCTICA copyright free photos]

ScreenTip: The CIA World Factbook photos of Antarctica

Target frame: New window   ▼

Link to: ◉ Existing file or web page   ○ Place in this document

Address: https://www.cia.gov/library/publications/the-world-factb ⋯

                                    OK   Cancel
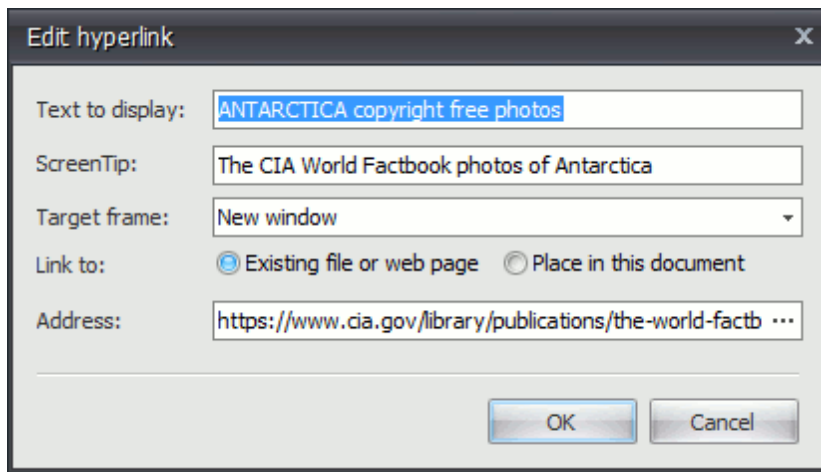
Insert a Page Break

The **Rich Text Editor** allows you to insert a page break in your document anywhere you want. To insert a page break:

    1. Point to the position within a document where you want to insert a page break.

    2. Click the **Page Break** button on the **Pages** [toolbar](#)...
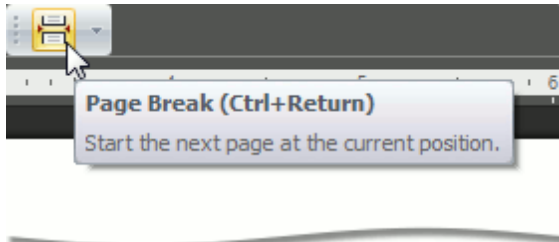
    ... or press **CTRL+ENTER**.

You can use the following keyboard shortcuts to insert breaks of different types:

CTRL+SHIFT+ENTER	Inserts a column break in the document.
CTRL+SHIFT+SPACE	Inserts a non-breaking space.
CTRL+ENTER	Inserts a page break.
ENTER	Inserts a paragraph break.
SHIFT+ENTER	Inserts the line break.
TAB	Inserts the tab

Insert a Picture

To insert graphics into your document, point to the required position and click the **Picture** button on the **Illustrations** toolbar.
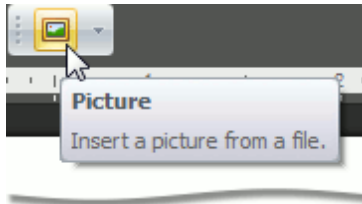
The **Open** dialog appears, allowing you to locate a file with graphics.
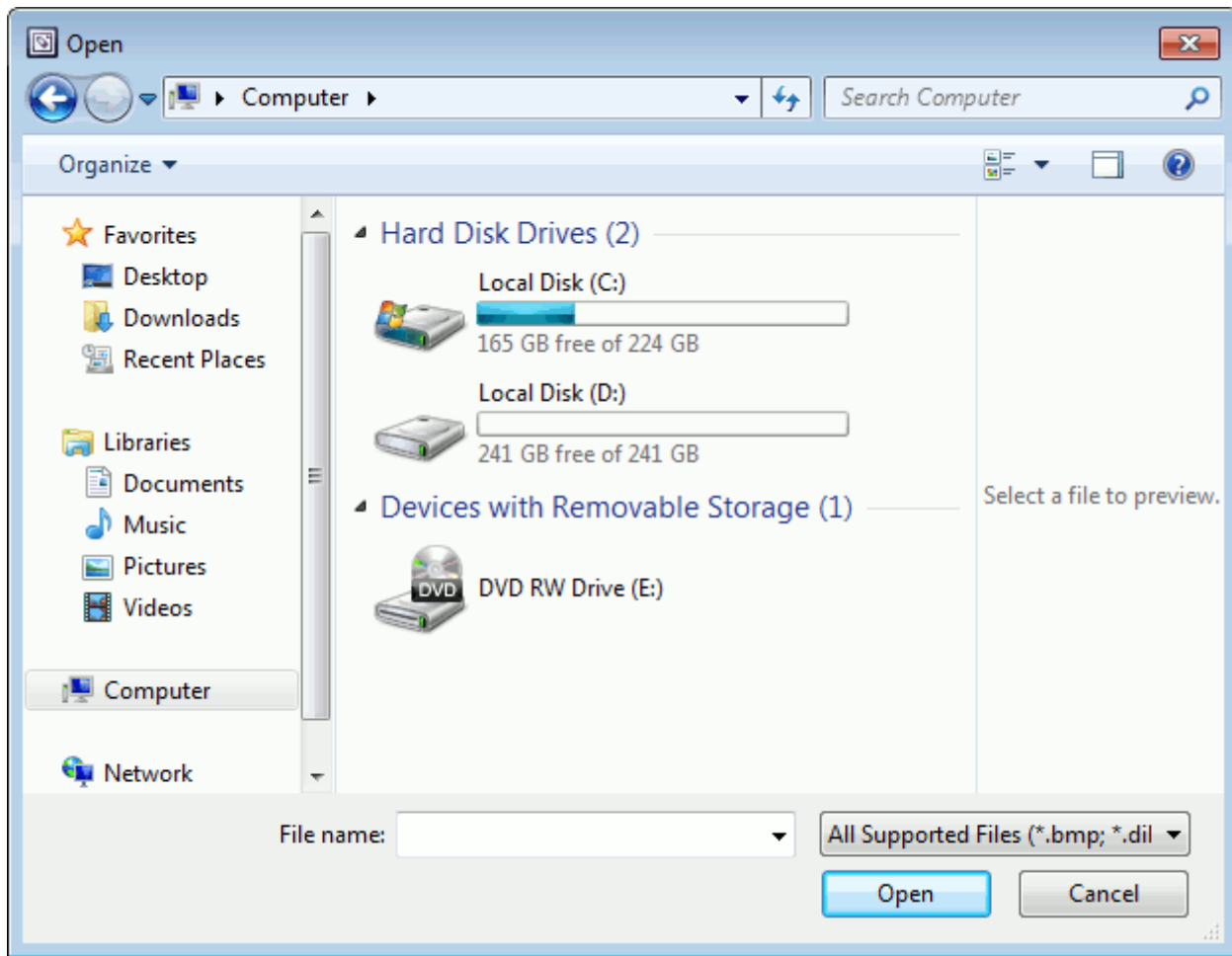
The **Rich Text Editor** enables you to insert graphics of the following types:

- Bitmap (*.bmp, *.dib)
- JPEG File Interchange Format (*.jpg, *.jpeg)
- Portable Network Graphics (*.png)
- Graphics Interchange Format (*.gif)
- Tagged Image Format (*.tif, *.tiff)
- Microsoft Enhanced Metafile (*.emf)
- Windows Metafile (*.wmf)

Insert Page Numbers

Insert a Page Number

1. Click the **Header** or **Footer** button on the **Header & Footer** [toolbar](#). For more information, see [Header and Footer](#).
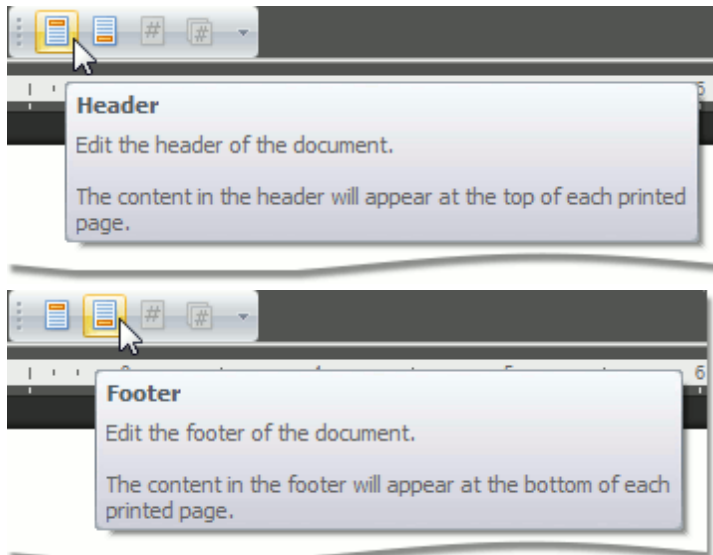
2. Point to anywhere in the header or footer area where you want to insert the page number.
3. To add page numbers, click the **Page Number** button on the **Header & Footer** toolbar.
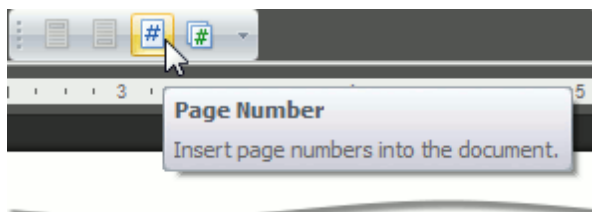
Insert a Page Count

1. Click the **Header** or **Footer** button on the **Header & Footer** [toolbar](#). For more information, see [Header and Footer](#).
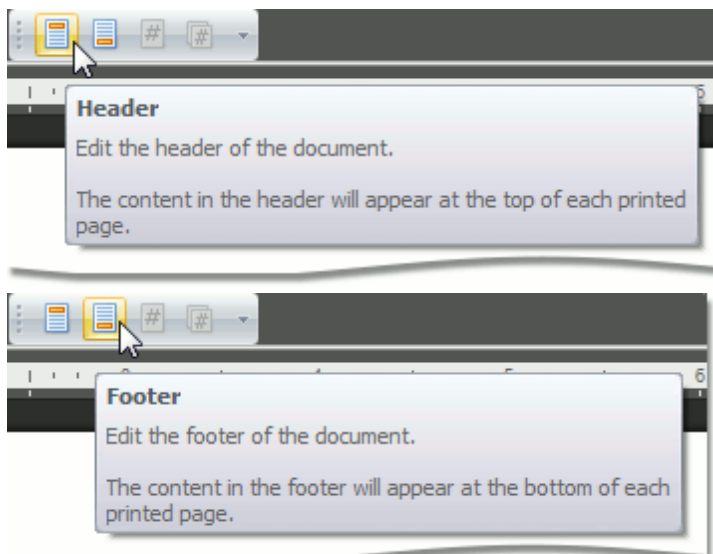
2. Point to anywhere in the header or footer area where you want to insert the number of pages.

3.To add the number of pages, click the **Page Count** button on the **Header & Footer** toolbar.
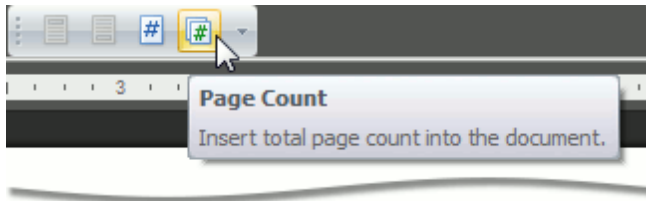
Insert a Symbol

The **Rich Text Editor** allows you to insert symbols that are not on your keyboard, such as copyright symbols, trademark symbols, paragraph marks.

To insert a symbol, do the following:

1. Point to the position within the document where you want to insert a symbol.
2. Click the **Symbol** button on the **Symbols** toolbar.
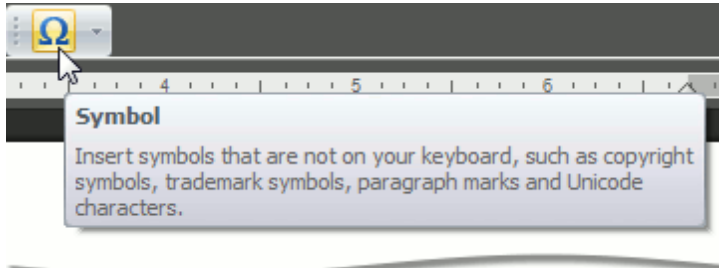
The **Symbol** dialog will be invoked.
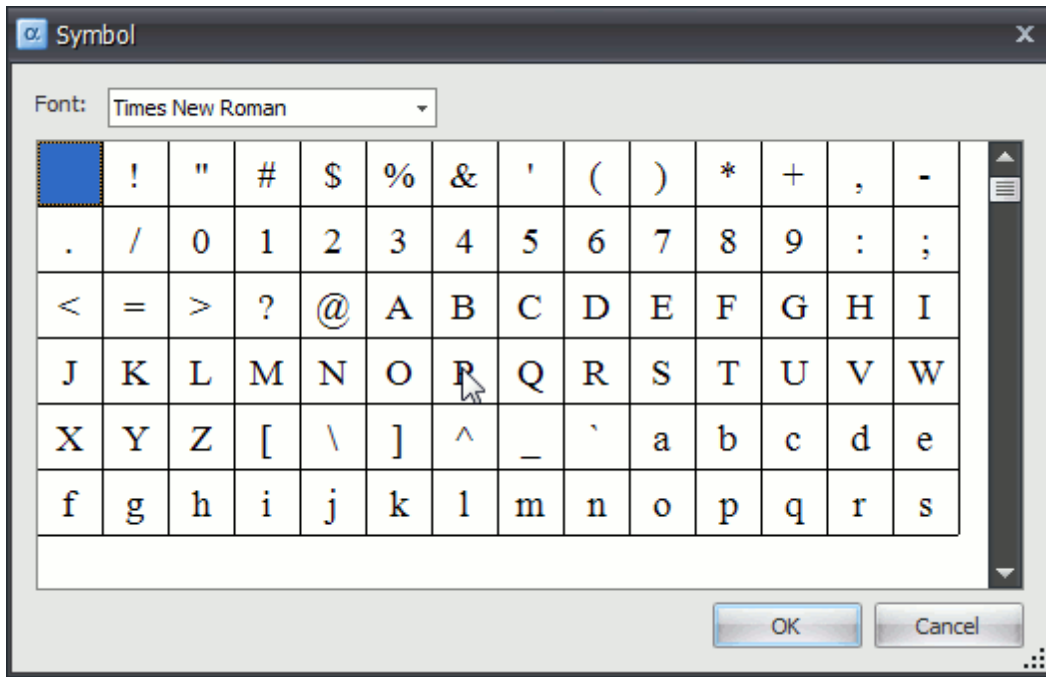
3. Select the symbol to be inserted and click **OK**, or double-click the symbol.

In addition, some symbols can be inserted in the document using default keyboard shortcuts:

CTRL+ALT+C	Inserts the copyright (©) symbol.
CTRL+ALT+OEMPERIOD	Inserts the ellipsis (...) symbol.
CTRL+ALT+R	Inserts the registered trademark (®) symbol.
CTRL+ALT+-	Inserts the em dash (—) symbol.
CTRL+ALT+T	Inserts the trademark sign (™) symbol.
CTRL+-	Inserts the en dash (-) symbol.

Scheduler

This section describes the capabilities provided by the Scheduler, which is used for scheduling/calendar activities.

Appointment Management

- [Create an Appointment](#)
- [Edit an Appointment](#)
- [Manage Reminders](#)
- [Delete an Appointment](#)
- [Restrictions for Operations with Appointments](#)

Layout Customization

- [Switch Scheduler Views](#)
- [Scheduler Grouping](#)
- [Zoom the Scheduling Area](#)

Selection and Navigation

- [Navigate Dates in the Scheduler](#)

- [Navigate Scheduler Resources](#)
- [Navigate Scheduler Time Cells](#)
- [Scheduler Navigation Buttons](#)
- [Scheduler 'More' Buttons](#)

Appointment Management

Create an Appointment

Using the Context Menu

The following items are available in the context menu, invoked when you right-click any region of the Scheduler (except for areas covered by appointments).
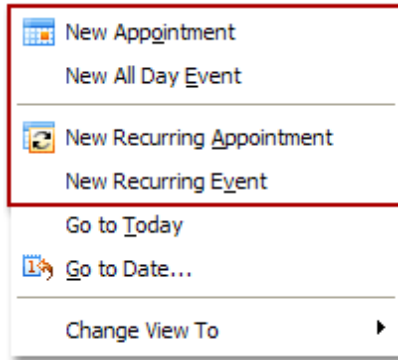
1.New Appointment

This item invokes the **Edit Appointment** dialog shown below.

The **Start time** and **End time** values are initially set to the lower and upper boundaries of the current date and time selection.

Fill in other fields, if necessary. For example, use the large text box at the bottom of the dialog to enter text, which will be shown as an appointment's description in a **Day** or a **Work Week** views.

Also, you can select the **Reminder** check box to enable appointment notifications.

2.New All Day Event

Invokes the **Edit Event** dialog, used to create a new all-day appointment (also called 'all-day event'). The dialog is identical to **Edit Appointment** (shown above), except that in this case, the **All day event** option is checked, its time range is measured in days (not hours) and marked as **Free**. The appointment can be transformed into an all-day event and vice-versa, by checking this box.

3.New Recurring Appointment

All appointments maintained by the scheduler can either be simple (non-recurring), i.e. they happen only once, or recurring - occurring multiple times within a specified time interval.

Selecting this menu item invokes the **Edit Appointment** dialog, used to create a new appointment, and

also invokes the **Recurrence** dialog, which allows the recurrence pattern to be specified for the new appointment.

4.New Recurring Event

Selecting this menu item invokes the **Appointment** editor dialog used to create a new all-day appointment, and also invokes the **Recurrence** dialog, which allows the recurrence pattern to be specified for the new event.

**Keyboard Shortcuts and Mouse Operations**

Action	Description
An alphanumeric key or ENTER	This invokes an in-place editor, to create an appointment occupying the currently selected area. Once you've typed your appointment's caption, you can either create and save the appointment, by pressing **ENTER** or changing the focus, or cancel the operation by pressing **ESC**. This method does not work in the **Month View** mode of the scheduler. The type of the created appointment depends on the selected time cell(s). When typing is done in Day View mode, the appointment is created with the time interval starting with the earliest time of the selected cells, and ending with the latest, and the time is marked as **Busy**. If an all-day area is selected, then an all-day appointment is created with the time marked as **Free**. When the scheduler display mode is **Week View**, the appointment is created with the start time set to 12 AM of the first selected day, and the end time is set to 12 AM of the day following the last selected day.
Double-click	Double-clicking within a scheduler view's time cell that

	doesn't contain any appointments invokes the **Edit Appointment** dialog described above.
CTRL+N	This keyboard shortcut invokes the **Edit Appointment** dialog. Then, this dialog can be used to create a new appointment.
Dragging an appointment while holding CTRL	This action creates a copy of the selected appointment and moves it, leaving the original appointment intact.

Edit an Appointment

Using Context Menu

After an appointment has been clicked with the right mouse button, the following context menu is invoked.
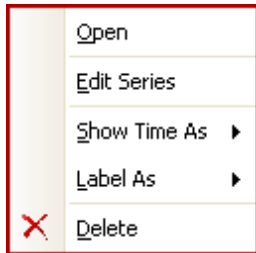
The **Show Time As** and **Label As** items are used to alter the appointment. They allow changing the basic visual characteristics - Label and Status.
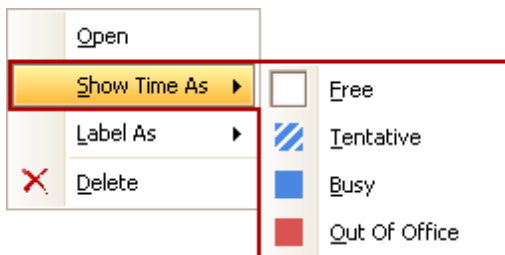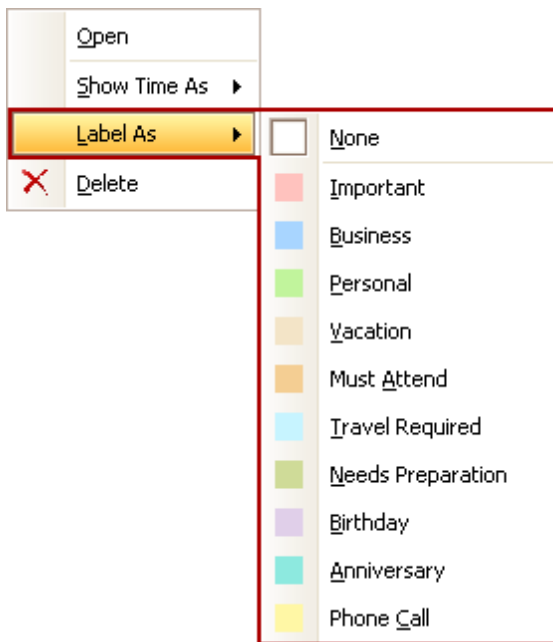
Edit Appointment Dialog

Selecting the **Open** item of the context menu invokes the **Edit Appointment** dialog, which allows editing the properties of the current appointment. Note that if the appointment is a part of a recurring series, then this item allows only the current appointment to be edited, but not the entire series. The appointment with changed start/ end times still belongs to the series, but is marked "exception". The visual indicator of an exception is the crossed recurrence sign

To edit the entire series of recurring appointments, it's necessary to select the **Edit Series** item of the context menu instead. In this instance, the Edit Appointment dialog is shown with a different window icon. Time fields are inaccessible.

The **Recurrence** button of the **Edit Appointment** dialog serves to edit the recurrence pattern. When clicked, it opens the following window.
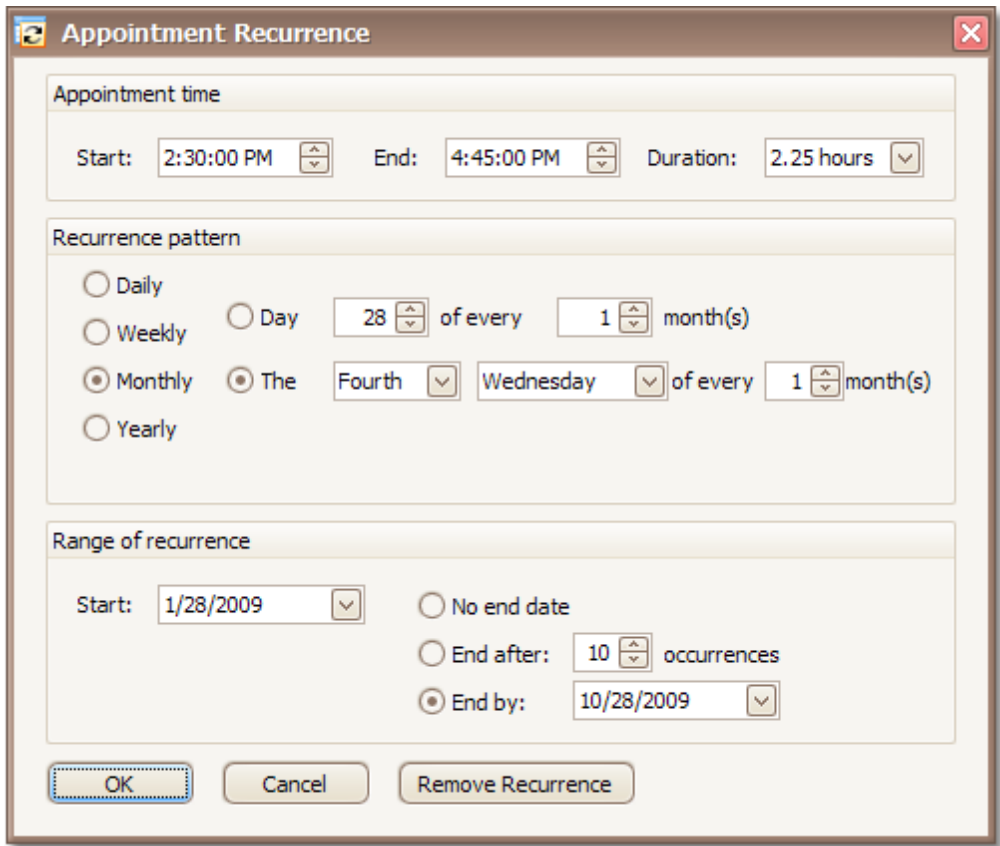
A recurring appointment is marked with a ⟳ sign.

In-place Editing

A single mouse click within the appointment invokes the in-place editor which is used to edit the appointment's **Subject**. It is illustrated in the following picture:
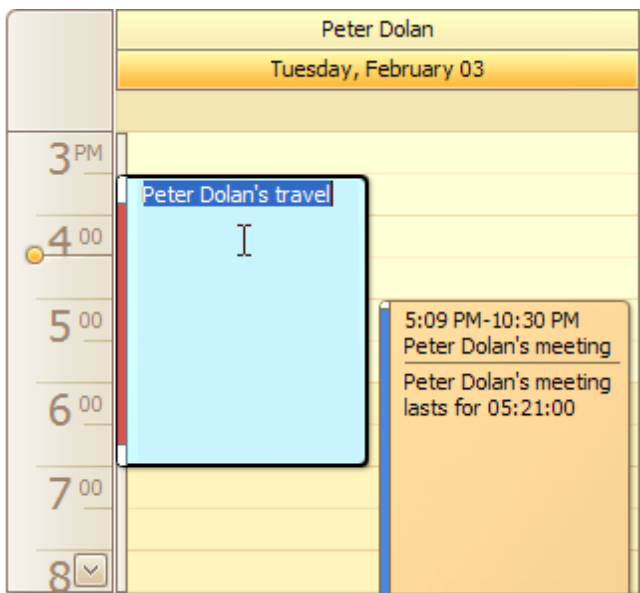
Keyboard Shortcuts and Mouse Operations

Action	Description

ENTER or CTRL+O	Invokes the **Edit Appointment** dialog for the selected appointment.
Double-click	Double-clicking an appointment invokes the **Edit Appointment** dialog.
F2	This key starts in-place editing.
Drag appointment edges	Resizing the rectangle, representing an appointment, results in changing its start/end times.
Drag an appointment	Dragging with the left mouse button moves the appointment across time cells, changing its **Start time** and **End time** properties.

Manage Reminders

What is a Reminder?

Any appointment can have one or more reminders. They are responsible for sending alerts at specified time periods before an appointment's start time. If an appointment has a reminder, the bell 🔔 image is displayed.
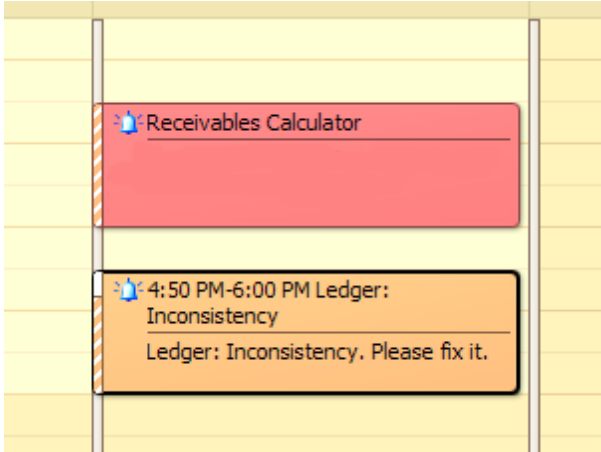
Specifying Reminders

A reminder can be created for a particular appointment with the help of the appointment's editing form, demonstrated below. Select the **Reminder** check box and enter the amount of time before the appointment when you want the reminder to occur. You can select a predefined value in a drop-down list, or just type it in. The duration editor recognizes digits as the number of minutes, if an "h" postfix is added - as hours, "d" - days.
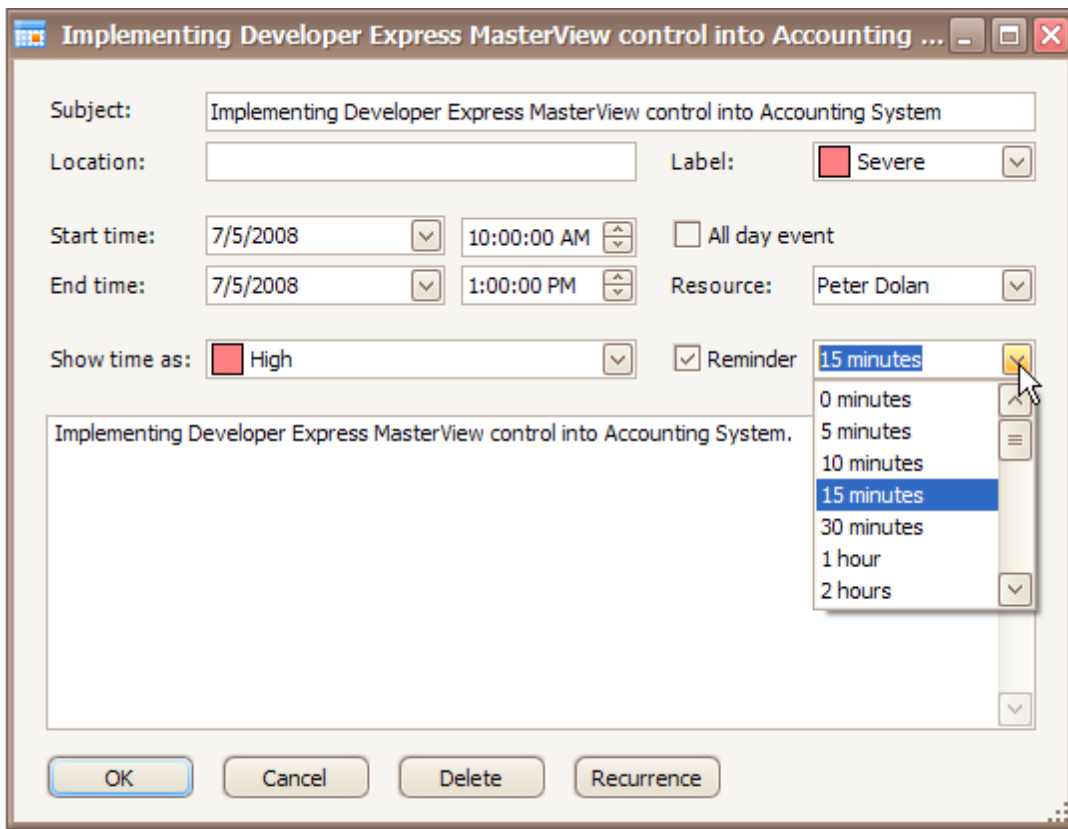
How Does It Work?

When the time has come for the reminder alert, it invokes the notification dialog, as illustrated below:
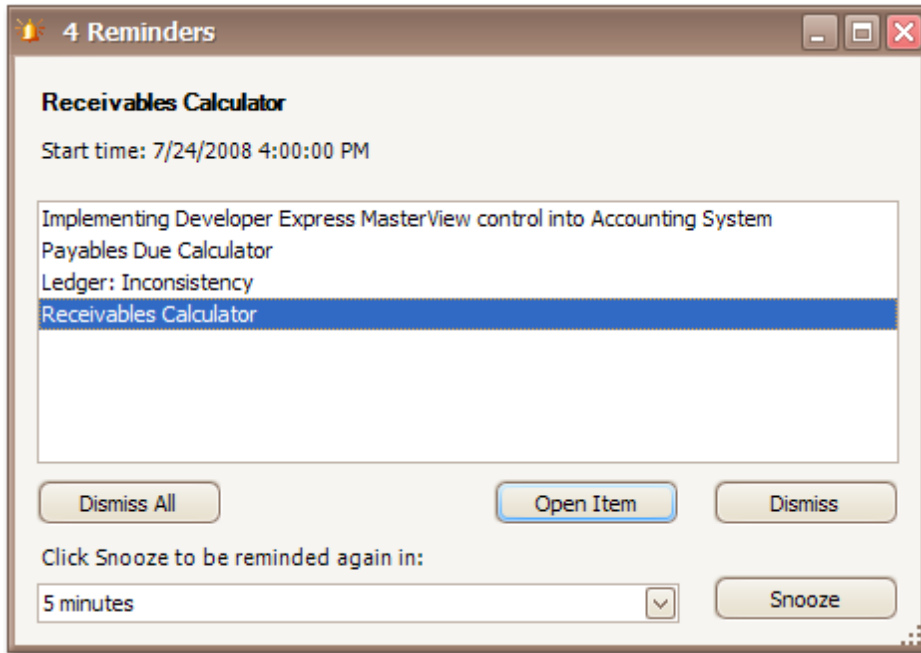
You can switch the reminders off by clicking the **Dismiss** or **Dismiss All** buttons.

Another option is to shift the alert time by selecting the time interval in the combo box and clicking the **Snooze** button. Then, the notification will be postponed for a specified time frame.

Delete an Appointment

Using the Context Menu

You can delete the selected appointment using the **Delete** item of the context menu, which is invoked when an appointment is right-clicked.
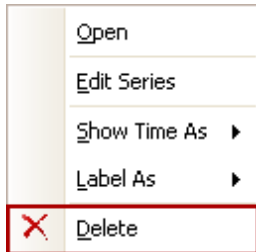
Selecting this item removes the current appointment. If the current appointment is recurring, then the **Confirm Delete** dialog is invoked.

Edit Appointment Dialog

When the appointment is being edited via the **Edit Appointment** dialog, in order to delete the corresponding appointment (or series of recurring appointments) click the **Delete** button of this dialog. If the current appointment is recurring, then the **Confirm Delete** dialog is also invoked.
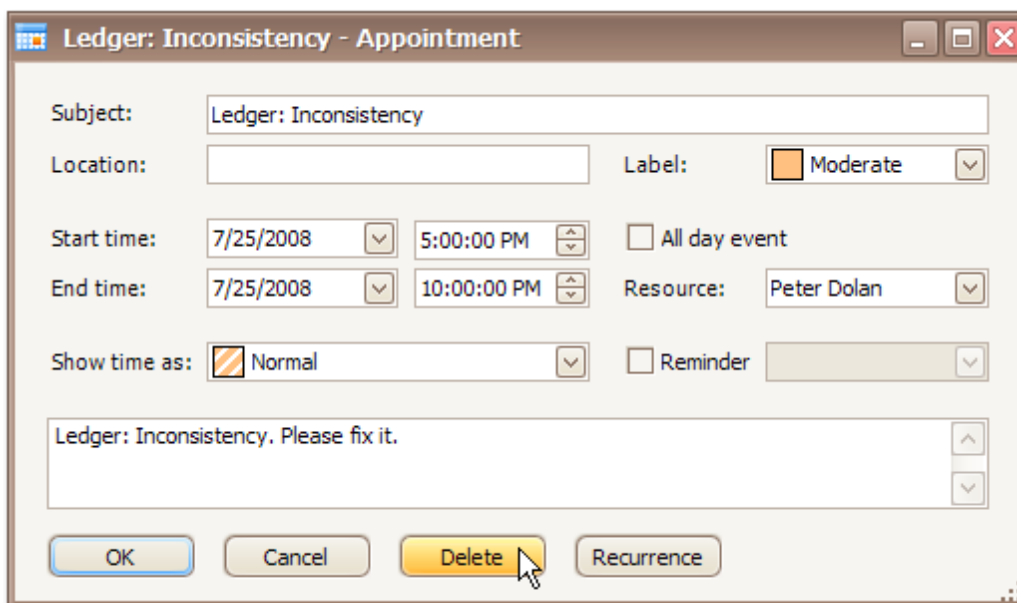
Keyboard Shortcuts

The DELETE key or the CTRL+D keyboard shortcut can be used to delete the selected appointment(s).

Restrictions for Operations with Appointments

Access to several operations may be restricted. You may find that you're not able to perform the following operations due to restrictions applied by your application vendor or administrator.

- Create new appointments.
- Edit appointments.
- Invoke the appointment editing form.
- Activate an in-place editor for an appointment.
- Change the time boundaries of appointments.
- Drag and drop appointments to another time slot or date.
- Drag and drop appointments between resources.
- Copy appointments.
- Delete appointments.
- Select more than one appointment simultaneously.
- Share the scheduled time between two or more appointments.

  When you drag an appointment to relocate it, it may conflict with another. This situation is visually indicated as illustrated below:
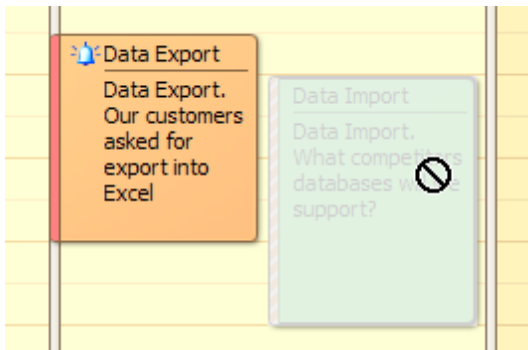
Layout Customization

Switch Scheduler Views

Change Active View

The Scheduler is intended to display appointment data using one of the standard **Views**. The currently active view used by the Scheduler can be either selected intentionally, or changed according to the Scheduler's internal logic.

- To change the active view, use the corresponding item of the Scheduler's context menu. This menu is invoked when you right-click any region of the Scheduler control (not occupied with an appointment).
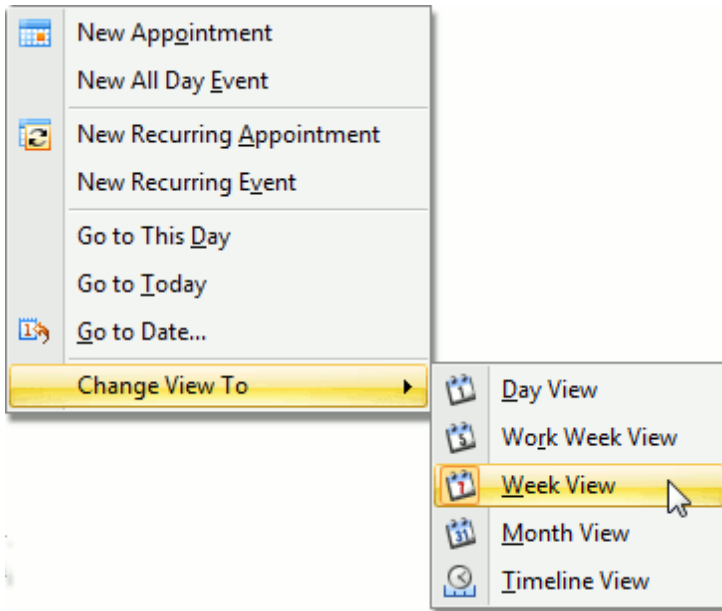
Note

Depending on the application vendor, some options may be unavailable in your application.

- While navigating dates via the **Go To Date** dialog, you can specify a view type to display a new time interval. The following picture illustrates selecting the View type:
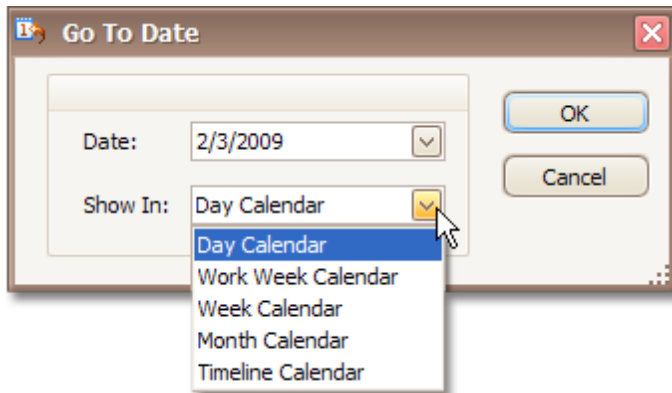
- The Scheduler selects a view mode automatically, according to the date range selected in the Calendar. To learn more about this capability, refer to the Selecting Dates topic.

Available View Types

- **Day View**
  This view provides the most detailed view of appointments for a certain day(s).
- **Work-Week View**
  This view displays appointments for the working days in a particular week.
- **Week View**

This view displays appointments for any given weekly period.

- **Month (also called Multi-Week) View**
The month view is the least detailed of the views, and is designed to allow browsing and long-term plans analysis. This view positions the days one after another horizontally, so that they form weeks, while weeks are placed one under another.

- **Timeline View**
This view plots appointments as horizontal bars along the timescales, and provides a clearer overview for scheduling purposes.

See Also
Selecting Dates

Scheduler Grouping

The data can be grouped either by resources or by dates, to enhance the visual representation. The following pictures illustrate the appearance of the control in grouping mode.

- Appointments are grouped by resources:

- Appointments are grouped by dates:

See also the Navigate Scheduler Resources topic.

Zoom the Scheduling Area

In **Day View**, **Work-Week View** and **Timeline View**, you can use CTRL+PLUS SIGN, CTRL+MINUS SIGN or CTRL+MOUSE WHEEL to zoom in and out of the Scheduler's area.

Zooming in allows you to display content in more detail. Speaking technically, this action makes the scale step smaller.
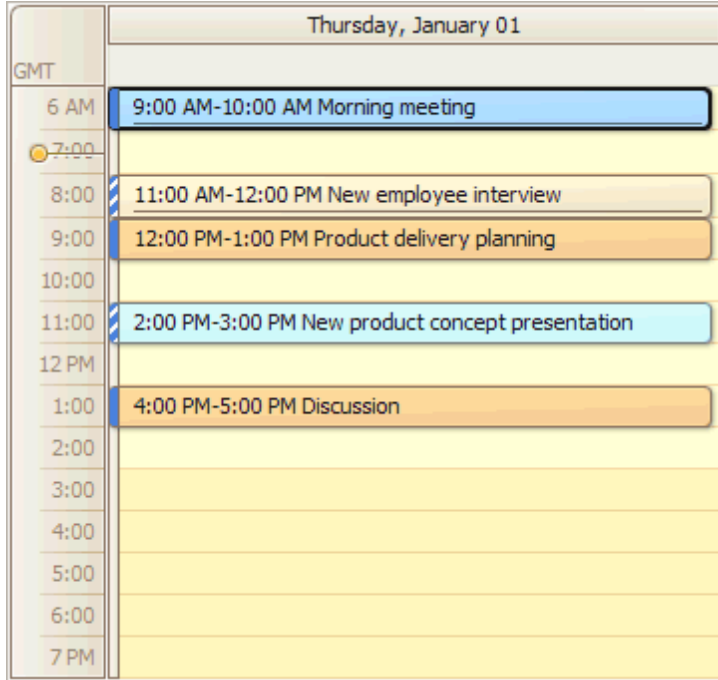
Zooming out allows you to get a broader look of the View.
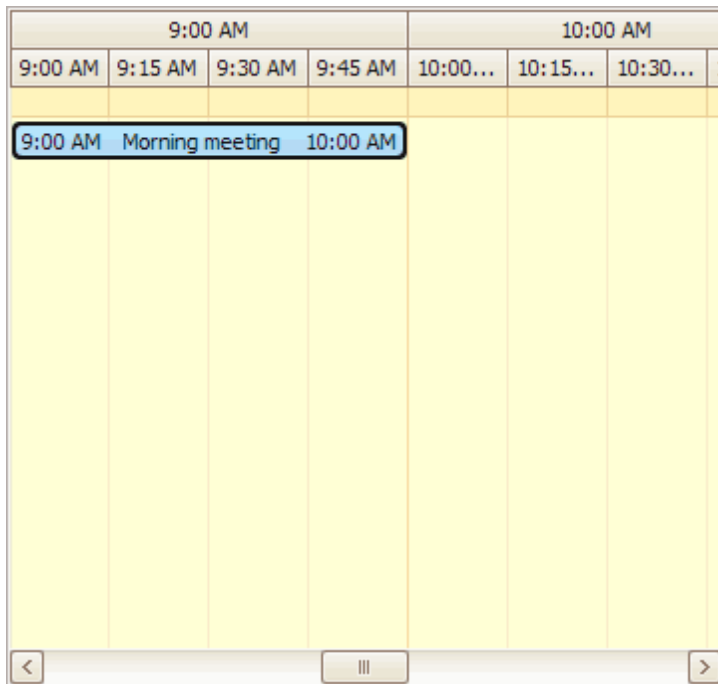
Selection and Navigation

Navigate Dates in the Scheduler

Using the Context Menu

Right-clicking within the main area of the **Scheduler** control opens the context menu, which contains items for navigating through dates.
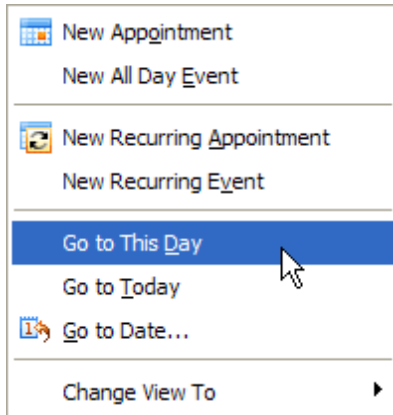
They are:

- **Go to This Day**
  Only available in the **Week View** and **Month View** modes. This item is active when only one day is selected, and when activated, displays the target day in the **Day View** mode.
- **Go to Today**
  Moves focus to the current date, preserving the existing view mode.
- **Go to Date...**
  Invokes a dialog (shown below) to select the date and view type. The date can be selected either by using the **Calendar** control, or by entering a string with the placeholders. To select the desired view type, use the **Show In** drop-down box.
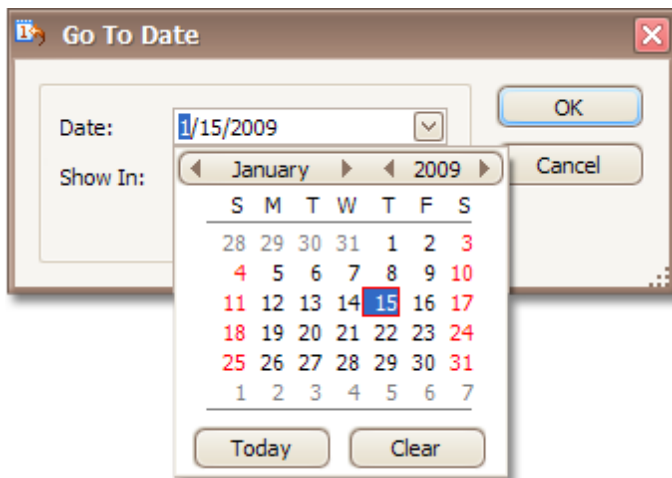
Using the Calendar Control

If the **Scheduler** control is accompanied by the **Calendar** control, you can use that control to navigate through dates. The common look of the **Calendar** control is illustrated in the following picture.
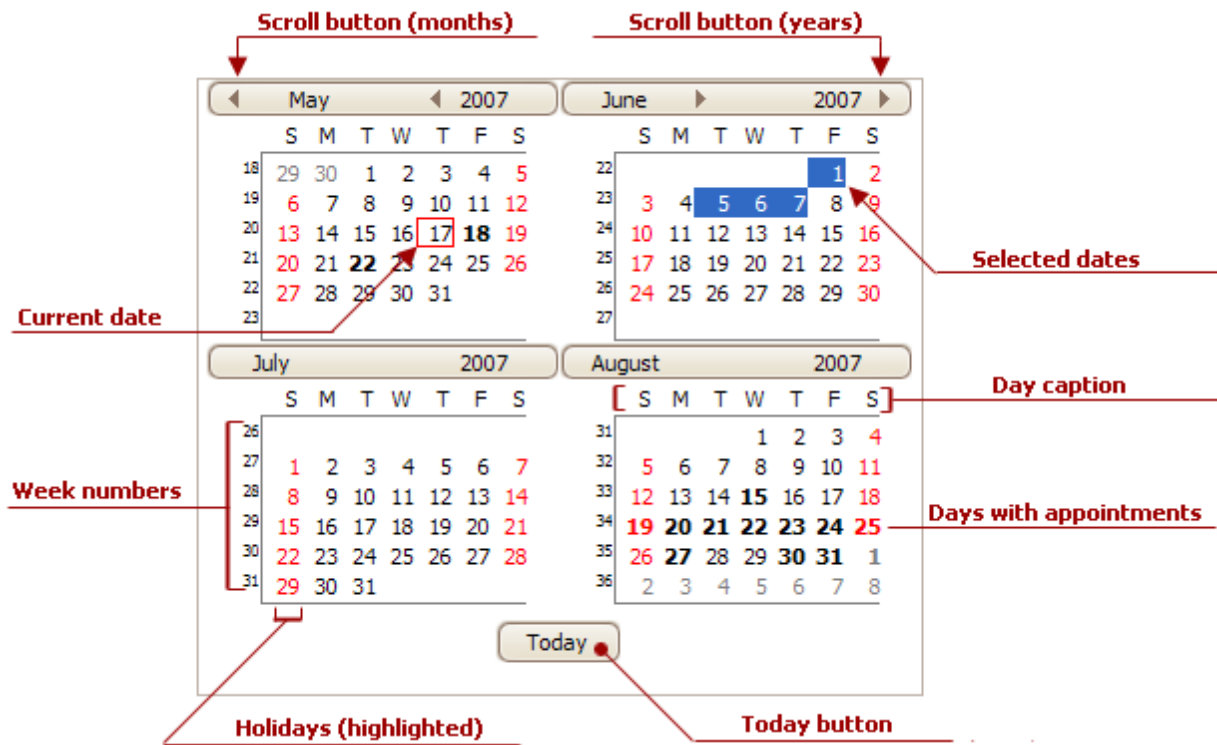
You can select either a particular date, or a range of dates in the Calendar control, and the Scheduler control will display your selection using the corresponding view. The table below details how you can select dates in different ways.
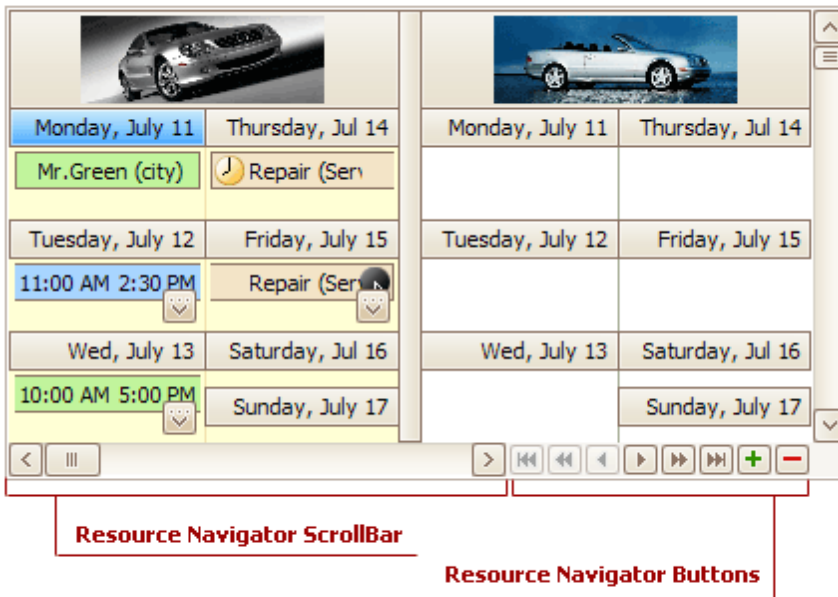
Action	Effect
Click a date	A single date is selected, and the Scheduler displays it using the **Day View**. If the currently active view is of another type, it is automatically changed to **Day View**. The only exception is the **Work Week View**. In this instance, the entire work week is selected.
Click and drag across multiple dates --or-- click a start date, hold down the SHIFT key and click an end date	The continuous range of dates is selected. The Scheduler adjusts the currently active view to display the selected range of dates. If the selection is smaller than a week, the view type is switched to **Day View**. A week-long range is displayed using the **Week View**. If the range is more than a week, then the **Month View** is used.
Hold down the CTRL key and click several dates	A set of dates is selected. The Scheduler displays it using the **Day View**, irrespective of the size of the selected range.
Click a week number	A corresponding week-long range is selected. The Scheduler displays it using the **Week View**.

Navigate Scheduler Resources

When appointment data is grouped (either by resources or by dates), the number of resources shown on the screen within the Scheduler at once can make it difficult to see all the scheduled data. To make the Scheduler's layout more readable, it is possible to limit the number of visible resources, and then scroll between them. There is an embedded **Resource Navigator** control, which allows you to scroll between resources.

The **Resource Navigator** control is composed of a scrollbar and a set of buttons. It may be shown horizontally (on the bottom line of the Scheduler control, with buttons in the right corner) or vertically (on the right side, buttons at the bottom). The position of the control is chosen automatically. It is vertical in **Day** and **Week** views, if appointments are grouped by dates, and horizontal in other view modes.

The mode of operation is rather straightforward - you can click the buttons to move back and forth through the list of resources; one by one, or straight to the first or last one on the list. The buttons with plus and minus signs increase or decrease the number of displayed resources by one.

Navigate Scheduler Time Cells

The following table contains the typical navigation operations:

Action	Effect
Clicking a cell	Moves focus to the clicked cell, selects it.
UP ARROW DOWN ARROW	**Day View**, **Work Week View** - Moves focus to the previous or next time cell within the current day. **Week View** - Moves focus to the previous or next day. **Month View** - Moves focus to the same day of the week for the previous or next week.
LEFT ARROW RIGHT ARROW	**Day View**, **Work Week View** - Moves focus to the corresponding time cell of the previous or next day. **Week View** - Moves focus to the left or right of the corresponding cell of a column. The view is scrolled to the previous or next week if necessary. **Month View** - Moves focus to the previous or next day.
PAGE DOWN	Moves the row focus one page down, preserving the column focus.
PAGE UP	Moves the row focus one page up, preserving the column focus.
HOME	**Day View**, **Work-Week View** - Moves focus to the start of Work Time within the current day. **Week View**, **Month View** - Moves focus to the first day shown in the current week.
END	**Day View**, **Work-Week View** - Moves focus to the end of Work Time within the current day. **Week View**, **Month View** - Moves focus to the last day shown in the current week.
CTRL+HOME	**Day View**, **Work-Week View** - Moves focus to the first cell of the day's visible time span. **Week View**, **Month View** - Moves focus to the first day shown in the current week.
CTRL+END	**Day View**, **Work-Week View** - Moves focus to the last cell of the day's visible time span. **Week View**, **Month View** - Moves focus to the last day shown in the current week.
TAB	Switches to appointments navigation. Focus shifts to the next time appointment within the time span shown. Pressing the key repeatedly iterates through the appointments in the following way - appointments with a definite duration are followed by all-day appointments.

SHIFT+TAB	Switches to appointments navigation. Focus shifts to the previous time appointment within the time span shown. Pressing the key repeatedly iterates through the appointments in the following way - appointments with a definite duration are followed by all-day appointments.
ALT+UP ARROW ALT+DOWN ARROW	• **Day View**, **Work-Week View**, **Month View** - Moves focus one week before or after. • **Week View** - acts like the LEFT(RIGHT) ARROW keys
ALT+PAGE UP ALT+PAGE DOWN	• **Day View**, **Week View**, **Month View** - Moves focus to the start or end of a current month.
ALT+HOME	• **Day View**, **Work-Week View** - Moves focus to the beginning of a current week.
ALT+END	• **Day View**, **Work-Week View** - Moves focus to the end of a current week.

Note

When appointments are grouped, only ARROW keys can move focus to another resource group.

Scheduler Navigation Buttons

The **Navigation Buttons** are used to scroll to the previous or next appointment. This is helpful when there is a significant time interval between scheduled appointments.
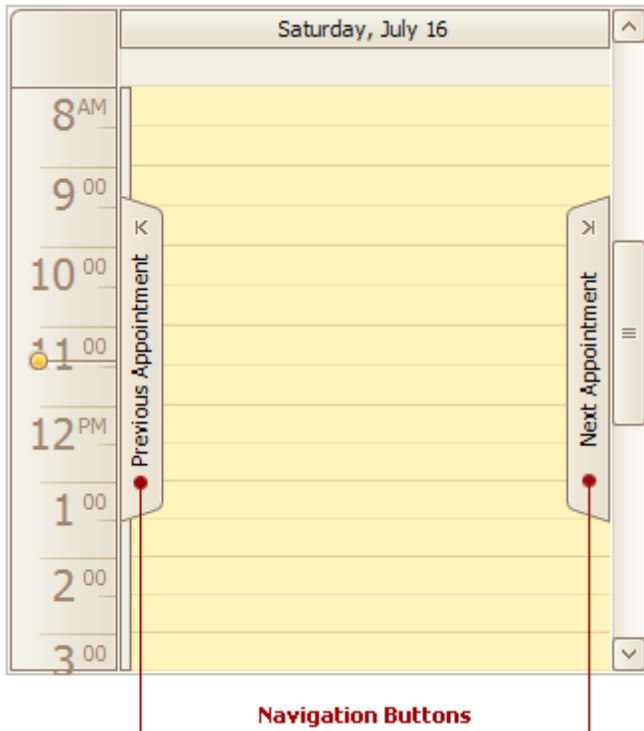
Navigation buttons are displayed if there are no currently visible appointments within the **Scheduler** control area. If there are appointments that refer to a previous or successive date, the **Previous Appointment** and **Next Appointment** navigation buttons provide the capability to navigate to the corresponding date. If there are no appointments in a specific direction, the corresponding navigation button is disabled.

Note that if the **Scheduler** control currently displays appointments for multiple resources, navigation buttons are displayed independently for each resource.

Scheduler 'More' Buttons

The "More" buttons indicate that more appointments exist on a particular date. Click these buttons to see all appointments in a more detailed view, or to simply scroll to the next appointment.

Day View:
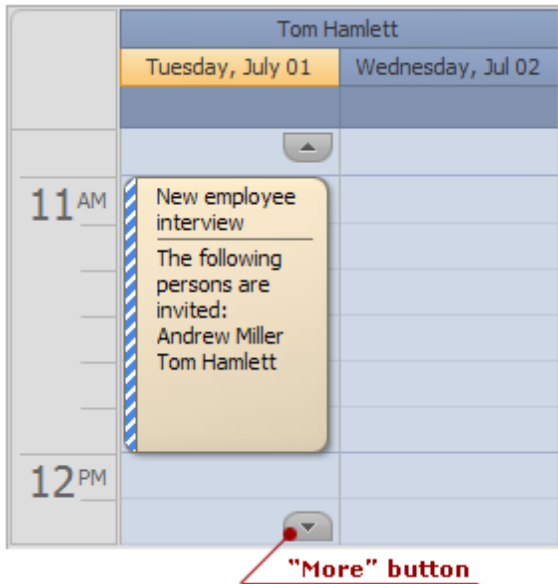
Month View:
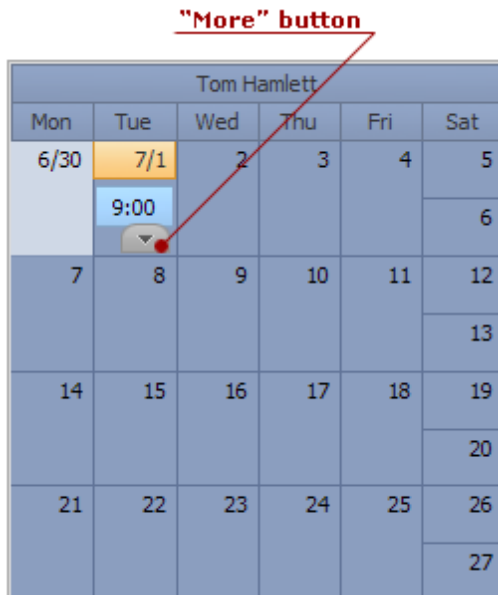
Toolbars and Menus

This section describes the capabilities provided by toolbars and menus.
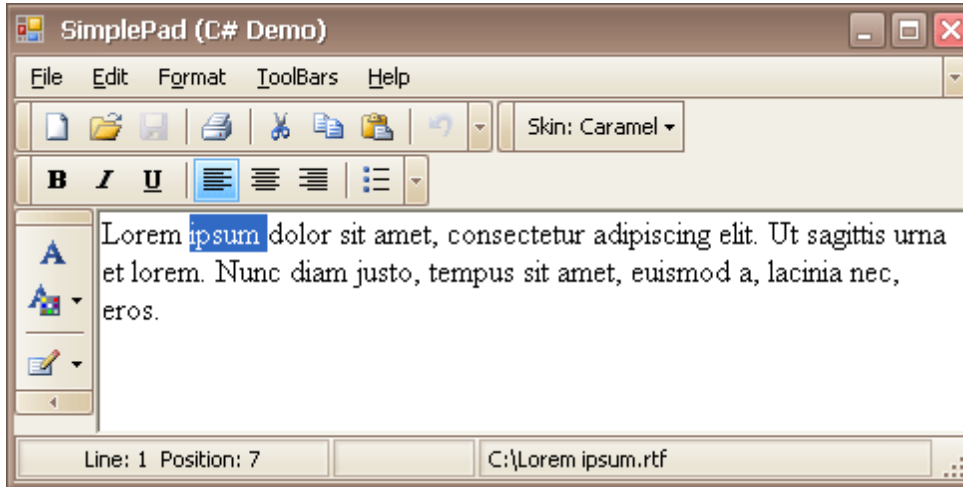
Layout Customization

- Open Toolbar Customization Window
- Finish Toolbar Customization
- Hide and Display Toolbars
- Hide and Display Bar Commands
- Rearrange Toolbars and Menus
- Rearrange Bar Commands
- Restore the Default Layout of Bar Commands

Navigation

- Keyboard Navigation in Menus and Toolbars

Select Commands

- Invoke Toolbar and Menu Commands

Layout Customization

Open Toolbar Customization Window

Opening the Customization window activates the customization mode where you can:

- Rearrange, hide and display bar commands.
- Change display options of bar commands.
- Hide bars, etc

To open the Customization window, do one of the following:

- Right-click any bar or the empty space, and select **Customize...**
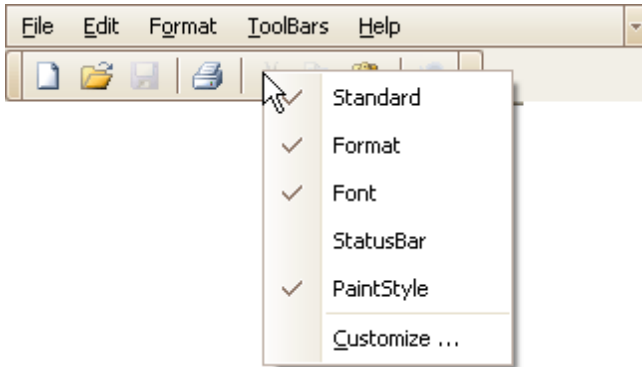
- Click the dropdown button displayed at the right edge of any bar. Then select **Add or Remove Buttons** and then **Customize...**
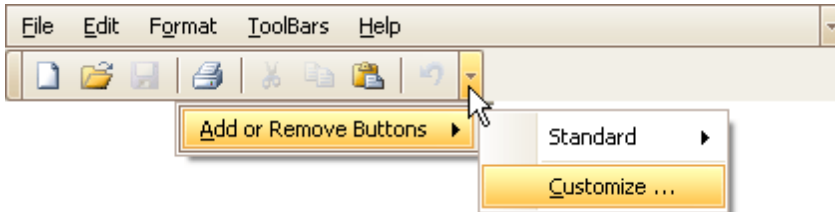
- Double-click the empty space, not occupied by any bar.
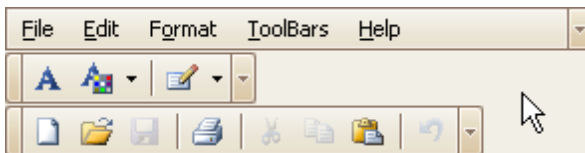
The Customization window will be opened, containing three tabs:
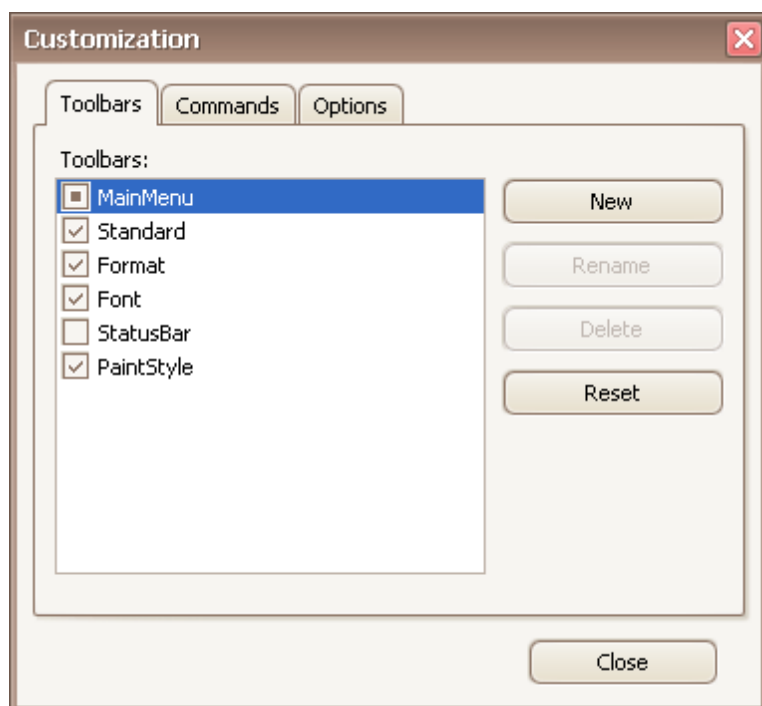
The **Toolbars** tab allows you to hide specific bars and display hidden ones.

The **Commands** tab allows you to access bar commands and add them to bars.

The **Options** tab allows you to control options affecting the display of menus and bar commands.

Finish Toolbar Customization

To finish customization, click the Customization window's Close button:

Hide and Display Toolbars

Use the Quick Customization Menu

Right-click any bar, and check or uncheck the required toolbars.
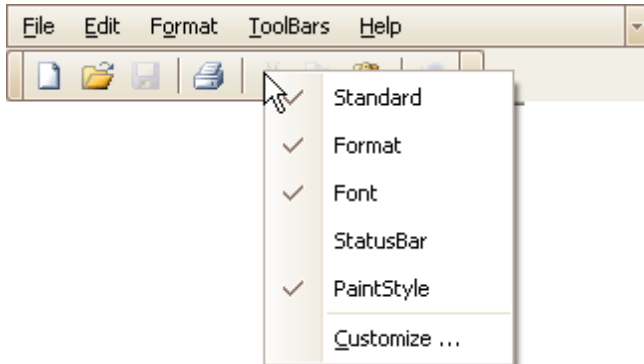
Use the Customization Window

Open the Customization window. Under the Toolbars tab, check or uncheck the required toolbars.
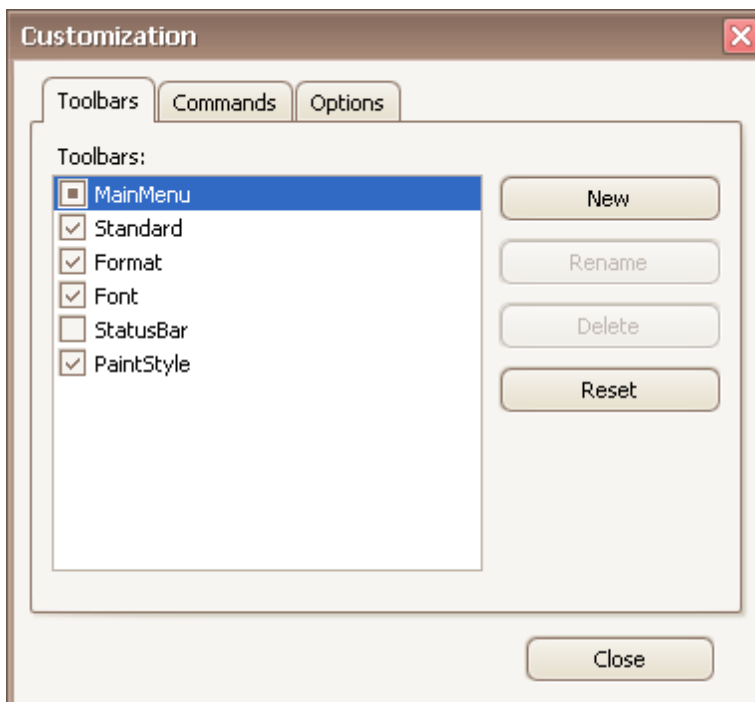
Hide and Display Bar Commands

Temporarily Hide and Display Bar Commands

You can temporarily hide bar commands, and then restore hidden commands within a specific bar as follows:

1. Click the dropdown button displayed at the right edge of the bar:
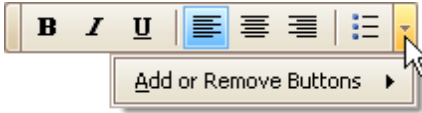
2. Select **Add or Remove Buttons**, and then select the name of the clicked bar displayed at the top of the submenu. A check list of bar commands displayed within the bar will be displayed:
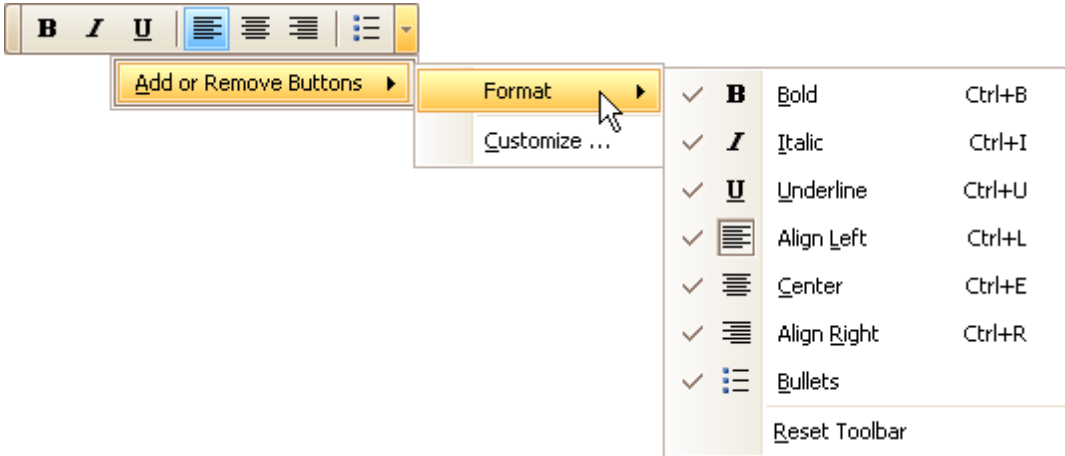
3. To hide specific commands, uncheck corresponding items via mouse click. To display hidden commands, check the corresponding items.

If a specific command is not available in a bar's command list, you can still access this command in customization mode, and add this command to the bar. See below, to learn more.

Hide and Display Bar Commands in Customization Mode

First, open the [Customization window](#).

To add a specific bar command to a bar, do the following:

1. Switch to the **Commands** tab page and locate the required command in the **Commands** list. Typically, commands are grouped into categories, so you can first select a category to quickly locate the command.

2. Drag the bar command from the **Commands** list onto a bar or menu. Note that you can put bar commands into nested menus. Menus will automatically open when you drag a bar command over their parent menu items.
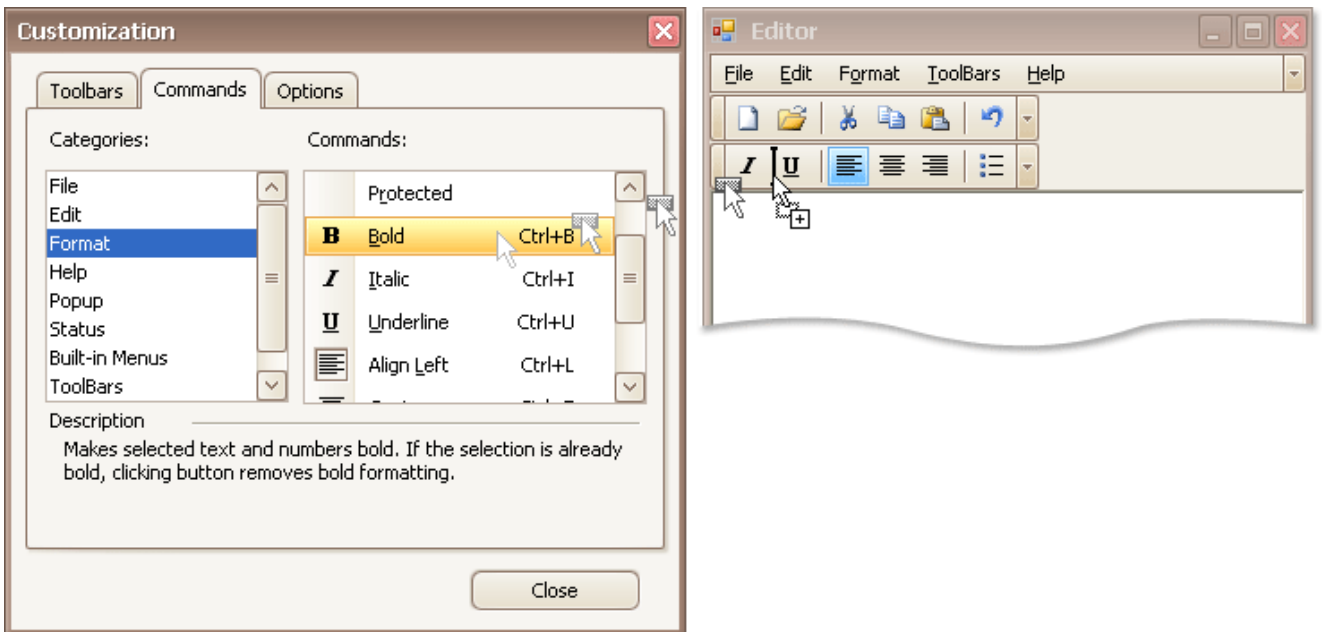
To remove a bar command from a bar, drag the bar command away from the bar, and drop it when the mouse cursor changes its image to 'x':
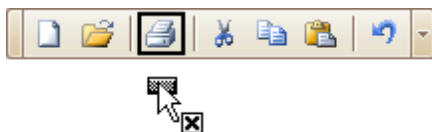
Note

You can cancel drag and drop while dragging an item by pressing ESC.

Rearrange Toolbars and Menus

To move a bar docked to a form to a new position, drag it via its drag widget.
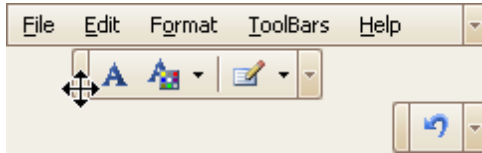
To move a floating bar, drag it by its caption.

To dock a bar to any of the four edges of the form, drag the bar to this edge.
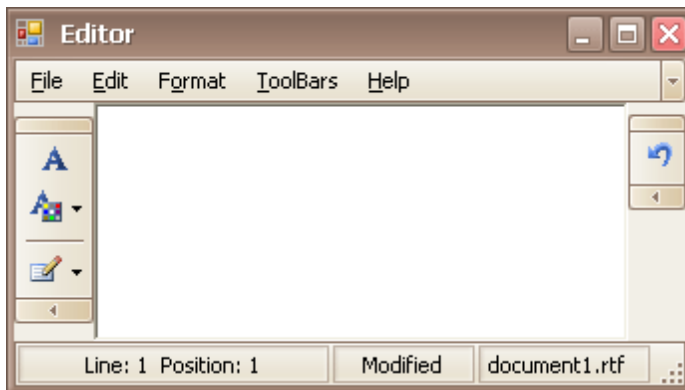
To make a docked bar floating, drag the bar away from the form's edges.
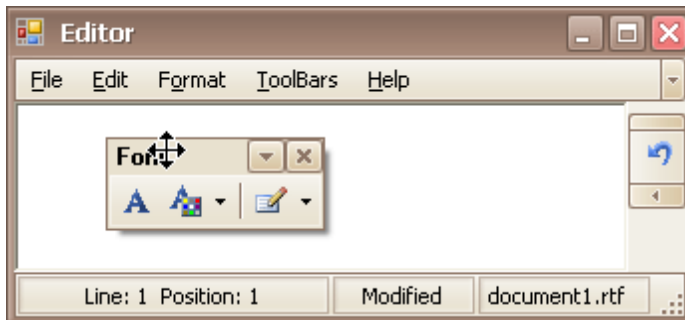
Rearrange Bar Commands

To rearrange bar commands, do the following:

1. Open the [Customization window](#).
2. Drag a bar command to a new position:
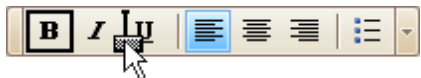
To copy a bar command, press CTRL while dragging.

Note

You can move commands even when the customization window is closed. For this purpose, hold down the ALT key when dragging a bar command.

Restore the Default Layout of Bar Commands

You can customize the layout of bar commands within a bar by hiding and rearranging them. Subsequently, you can revert to the default layout of bar commands. This topic describes two ways to do this.

Restore the Default Layout Using Quick Customization

1. Click the dropdown button displayed at the right edge of any bar:
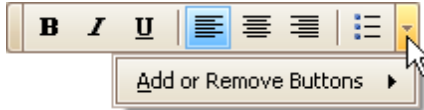
2. Select **Add or Remove Buttons**, and then select the name of the clicked bar displayed at the top of the submenu. Then, select **Reset Toolbar**.
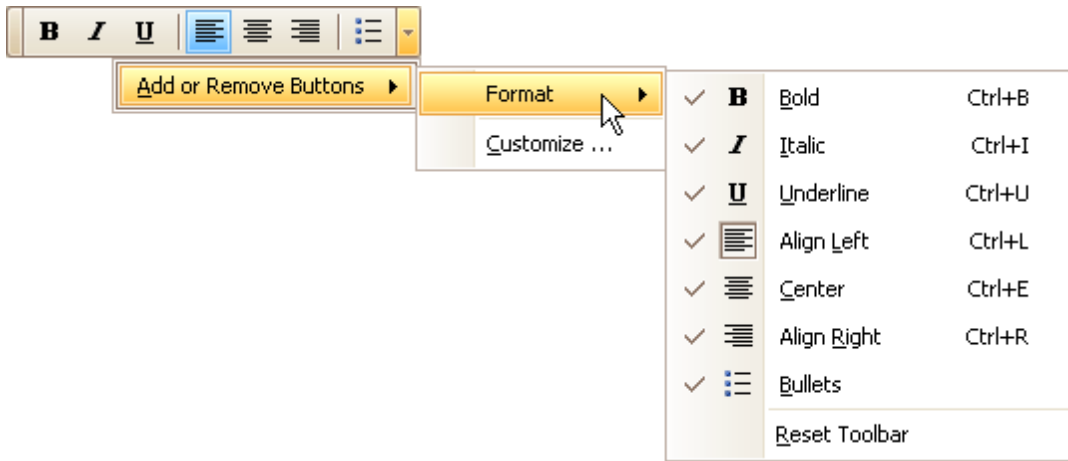
Restore the Default Layout in Customization Mode

1. Open the Customization window.
2. Select a bar in the list whose layout is to be restored.

3. Click **Reset**.

Customization   ✕

Toolbars | Commands | Options

Toolbars:

■ MainMenu
☑ Standard
☑ Format
☑ Font
☑ StatusBar
☑ PaintStyle

New

Rename

Delete

Reset

Close
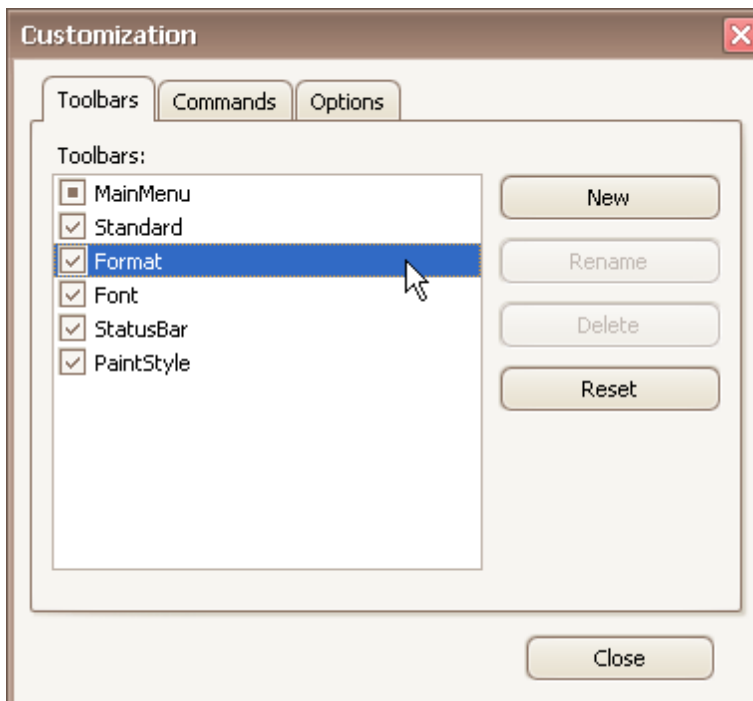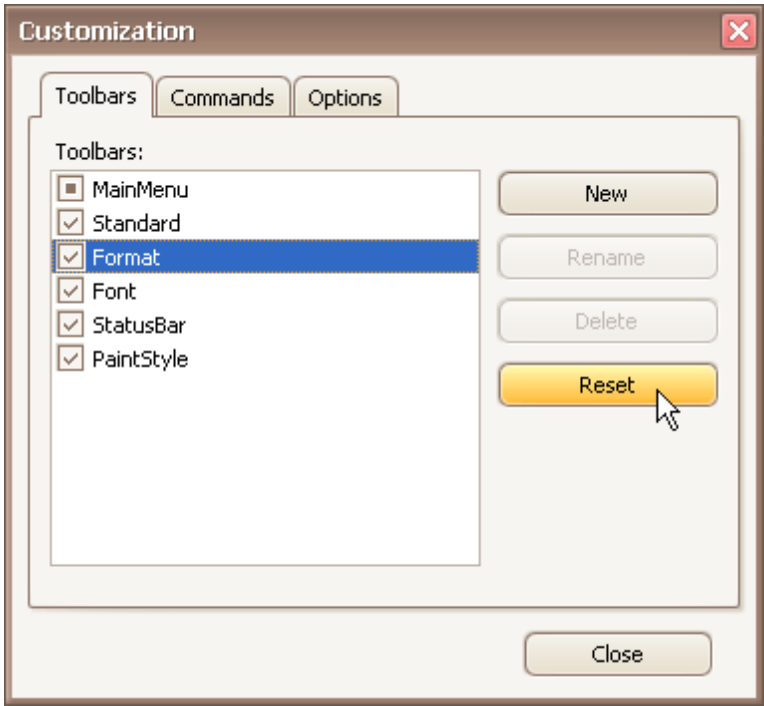
Navigation

Keyboard Navigation in Menus and Toolbars

Navigate between Toolbar and Menu Items

To switch focus to the main menu, press ALT or F10. The following shortcuts allow you to navigate through bars and bar items. They are in effect when a bar/menu is focused.

Action	Description
CTRL+TAB	Moves focus to another bar.
ARROW keys	Moves focus to the next command in the corresponding direction.
TAB SHIFT+TAB	Moves focus to the next/previous command.
ESC	Moves focus away from the currently focused bar.

Open and Close Menus

To open a sub-menu displayed within a bar, do one of the following:

- Focus the sub-menu (using one of the methods described above) and press the ENTER or DOWN ARROW.
- If the sub-menu's name contains an underscored letter, then:
  - if the bar is focused, press the underscored letter.
  - if the bar is not focused, hold the ALT key down and then press the underscored letter.

To open a menu displayed within another menu, do one of the following:

- Focus the sub-menu and press the RIGHT ARROW.
- If the menu's name contains an underscored letter, press the underscored letter.

To close the currently opened menu, press ESC.

See Also
Invoke Toolbar and Menu Commands

Select Commands

Invoke Toolbar and Menu Commands

To invoke a specific bar or menu command, do one of the following:

- Click the command with the mouse
- Focus the command and then press ENTER.
- If a command is visible and it contains an underscored letter in its name, then:

  - if the bar or menu that contains this command is focused, then press this underscored letter.

  - if the bar or menu that contains this command is not focused, hold the ALT key down and then press this underscored letter.

- Press the shortcut assigned to the command.

  If a command is displayed within a menu, its shortcut is displayed next to the command's name (if assigned).

  Shortcuts for toolbar buttons are typically displayed in hints.

Tree List

This section describes the capabilities provided by a multi-column tree view, which displays hierarchical data, supports data editing, sorting, summary calculation and many other features:

Data Editing

- Edit Cells in a Tree List

Data Presentation

- Show Summaries (Totals) in a Tree List
- Sort Tree List Nodes

Layout Customization

- Expand and Collapse Nodes in a Tree List
- Hide and Display Tree List Columns
- Reorder Tree List Columns
- Resize Tree List Columns

Selection and Navigation

- Navigation in a Tree List
- Select Tree List Nodes

Data Editing

Activate Cell Editor

Do one of the following:

- Click a cell.
- Focus a cell (for instance, via the keyboard), and press ENTER or F2.
- Focus a cell and press any alpha-numeric key. The editor will be invoked and its contents will be replaced with the pressed character.

Select and Deselect Cell Text

Press F2 or CTRL+A.

Close Cell Editor and Accept Changes Made

Do one of the following:

- Press ENTER.
- Click any other grid cell.
- Focus any other control.

Discard Changes

To discard changes made in a cell, press ESC.

To discard changes made in all cells within a node, press ESC twice.

Open Cell Editor's Dropdown

Do one of the following:

- Activate a cell editor and press ALT+DOWN ARROW or F4.
- Click the editor's dropdown button:

Close Cell Editor's Dropdown

For all editors providing a dropdown, you can close the dropdown by pressing ALT+DOWN ARROW.

If the calculator is displayed in the dropdown, it can be closed via CTRL+ENTER.

Dropdowns displaying lists of items can be closed by clicking an item with the mouse, or by selecting an item with the keyboard and pressing ENTER.

Change Values

Change Date/Time Values

You can edit these cell values without opening the dropdown calendar. Position the caret at the portion of a date/time value that needs to be changed. To increment the value, press CTRL+UP ARROW. To decrement the value, press CTRL+DOWN ARROW.

Change Numeric Values

To increment the value, press CTRL+UP ARROW. To decrement the value, press CTRL+DOWN ARROW.

Change Values of Cells That Provide Dropdown Items

To select the previous value, press CTRL+UP ARROW. To select the next value, press CTRL+DOWN ARROW.

Note: this feature is not applicable to all editors.

Edit Images

To copy, cut, paste, load and save images in image editors, right click the image and select the required command via the context menu:

Data Presentation

Show Summaries (Totals) in a Tree List

To change the type of summary for a specific column or apply a summary, do the following:

1. Right-click a region within a group footer or grid footer under a specific column. A context menu displaying a list of supported summary types will be displayed.

Department	Budget
⊟ Corporate Headquarters	$1,000,000
⊞ Sales and Marketing	$22,000
Finance	$40,000
⊞ Engineering	$1,100,000

17

- Σ Sum
- Min
- Max
- ☰ Count
- Σ/n Average
- None
- 2⌷ All Nodes
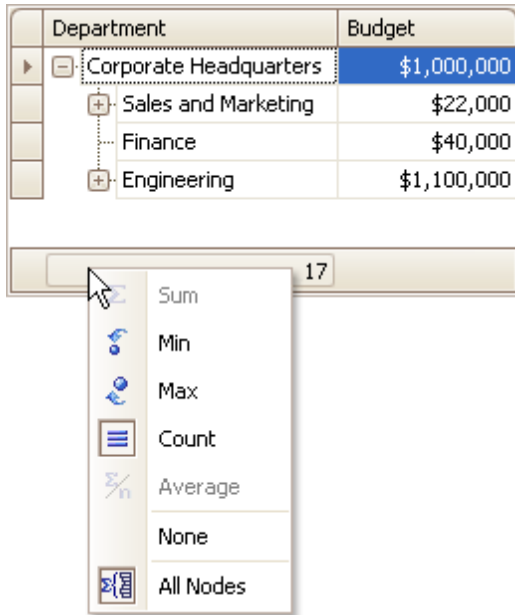
2. Select the required option from the context menu.

To calculate summaries against all nodes, ensure that the **All Nodes** menu check item is checked. To calculate summaries against root nodes only, uncheck the **All Nodes** check item.

Sort Tree List Nodes

To sort nodes by a column's values and replace existing sort conditions that are applied to the current or other columns, click the target column's header, until an Up or Down Arrow icon is displayed within the header. The Up and Down Arrows indicate ascending and descending sort orders respectively.

To sort nodes by a column's values while preserving existing sort conditions, do one of the following:

- Click a column header while holding the SHIFT key down, until an UP or Down Arrow icon is displayed within the header.
- Right-click a column header and select **Sort Ascending** or **Sort Descending** from the context menu that will appear.
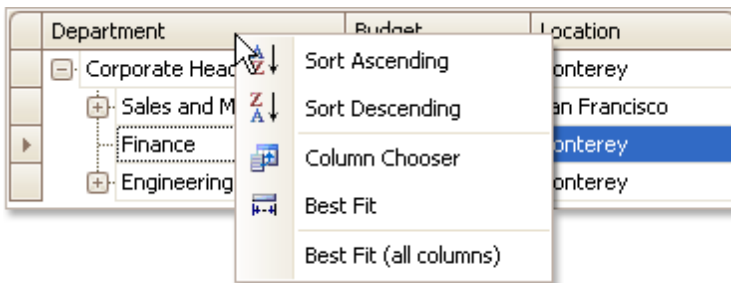
To remove sorting by a column, click a column header while holding the CTRL key down.

Layout Customization

Expand and Collapse Nodes in a Tree List

Expand and Collapse Nodes

Do one of the following:

- Focus the node and then press PLUS on the keyboard to expand the node, and MINUS to collapse the node:
- Click the node's expand button.

- Double-click the indicator cell corresponding to the node.

Expand Nodes Recursively

To expand a node and all its child nodes that have nested nodes, focus the node and press MULTIPLY on the keyboard.

Hide and Display Tree List Columns

Hide Columns

Do one of the following:
- Click a column header and drag it outside the header panel, until the cursor changes its image to the big 'X'. Then drop the header.
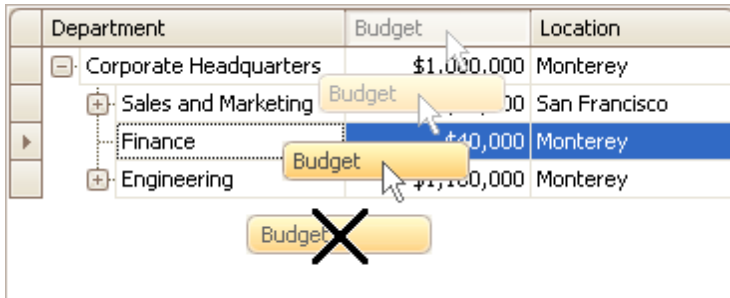
- Drag and drop a column header onto the Customization Form if it's open (see below).
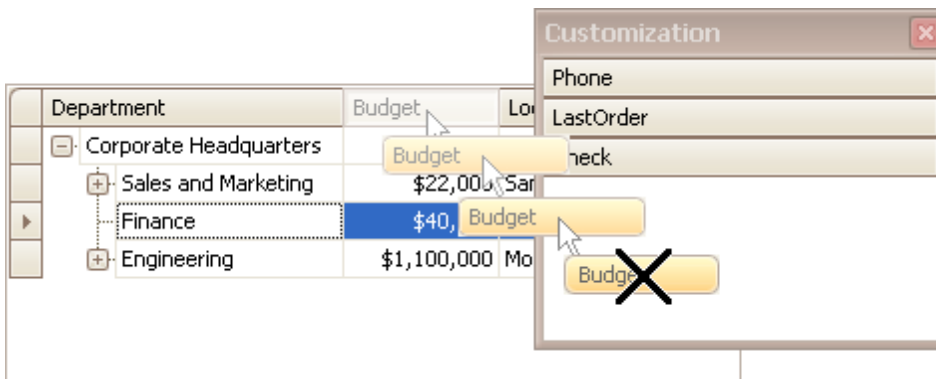
Display Hidden Columns

1. Open the Customization Form by right-clicking a column header and selecting **Column Chooser**.
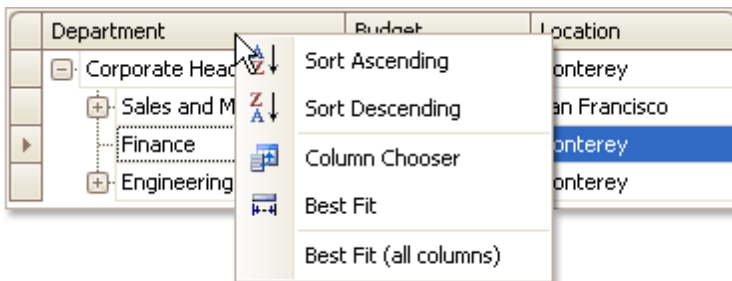
The Customization Form will be displayed listing hidden columns (if any).
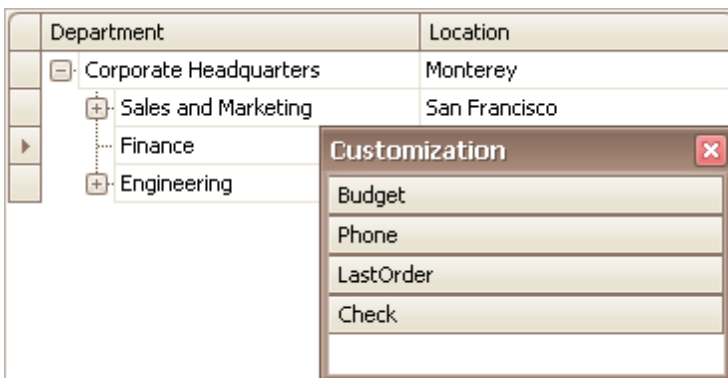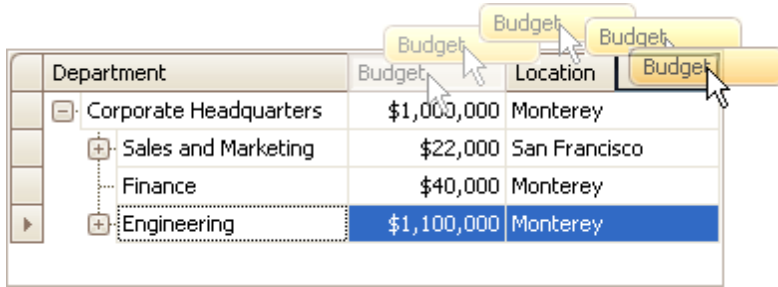
2. Drag the required column from the Customization Form onto the column header panel and drop it at the required position.

Reorder Tree List Columns
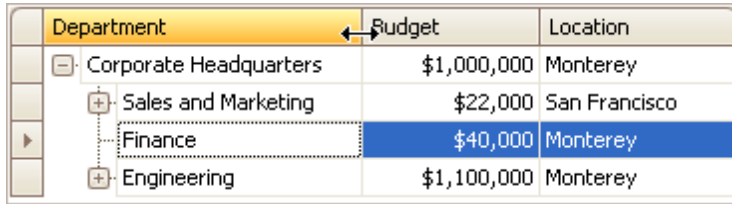
To reorder columns, drag and drop a column header to a new position.

Resize Tree List Columns

To resize columns, drag the right edge of the target column header:

To change a column's width so that it displays its contents compactly in their entirety, do one of the following:

- Double-click the right edge of the column header.
- Right-click the column's header and select **Best Fit**.

To change the widths of all columns so that they display their contents in the best possible way, right-click the header of any column and select **Best Fit (all columns)**.

Selection and Navigation

Navigation in a Tree List

Action	Description
Clicking a data cell	Moves focus to the clicked cell.
ARROW keys	Moves focus to the next cell in the corresponding direction.
HOME END	Moves focus to the first/last cell within the focused node.
PAGE UP PAGE DOWN	Moves focus one page up or down.
CTRL+HOME	Moves focus to the first cell within the first node.
CTRL+END	Moves focus to the last cell within the last node.
TAB CTRL+TAB	Moves focus away from the TreeList to the next control, in tab order.
SHIFT+TAB	Moves focus away from the TreeList to the previous control, in tab order.

You can also click node indicator cells to move focus to the corresponding row while preserving column focus.
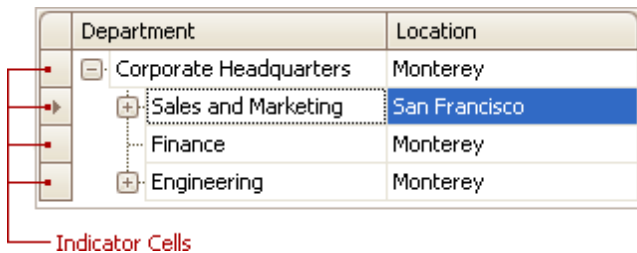
Select Tree List Nodes

Change Focused Node

To focus a node and clear the existing selection, do one of the following.

- Click the node's indicator cell or any of its data cells.
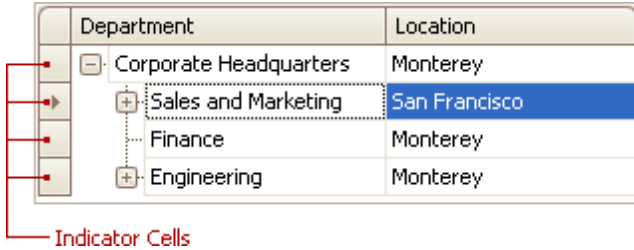
- Select the node using the ARROW keys.

Select Multiple Nodes

To select a node while preserving the current selection, click the node's indicator cell or any of its data cells, while holding the CTRL key down.

To toggle the focused node's selected state, do one of the following.

- Press CTRL+SPACE.
- Click the node while holding the CTRL key down.

To move focus between nodes while preserving the current selection, use CTRL+ARROW keyboard shortcut.

Vertical Grid

This section describes the capabilities provided by Vertical Grids (Property Grids).

Data Editing

- [Edit Cells in Vertical Grids](#)

Layout Customization

- [Expand and Collapse Rows in Vertical Grids](#)
- [Resize Rows and Columns in Vertical Grids](#)

Navigation

- [Navigation in Vertical Grids](#)

Data Editing

Activate Cell Editor

Do one of the following:

- Click a cell.
- Focus a cell (for instance, via the keyboard), and press ENTER or F2.
- Focus a cell and press any alpha-numeric key. The editor will be invoked and its contents will be replaced with the pressed character.

Select and Deselect Cell Text

Press F2 or CTRL+A.

Close Cell Editor and Accept Changes Made

Do one of the following:

- Press ENTER.
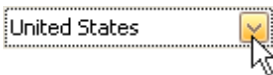- Click any other grid cell.
- Focus any other control.

Discard Changes

To discard changes made in a cell, press ESC.

Open Cell Editor's Dropdown

Do one of the following:

- Activate a cell editor and press ALT+DOWN ARROW or F4.
- Click the editor's dropdown button:

Close Cell Editor's Dropdown

For all editors providing a dropdown, you can close the dropdown by pressing ALT+DOWN ARROW.

If the calculator is displayed in the dropdown, it can be closed via CTRL+ENTER.

Dropdowns displaying lists of items can be closed by clicking an item with the mouse, or by selecting an item with the keyboard and pressing ENTER.

Change Values

Change Date/Time Values

You can edit these cell values without opening the dropdown calendar. Position the caret at the portion of a date/time value that needs to be changed. To increment the value, press CTRL+UP ARROW. To decrement the value, press CTRL+DOWN ARROW.

Change Numeric Values

To increment the value, press CTRL+UP ARROW. To decrement the value, press CTRL+DOWN ARROW.

Change Values of Cells That Provide Dropdown Items
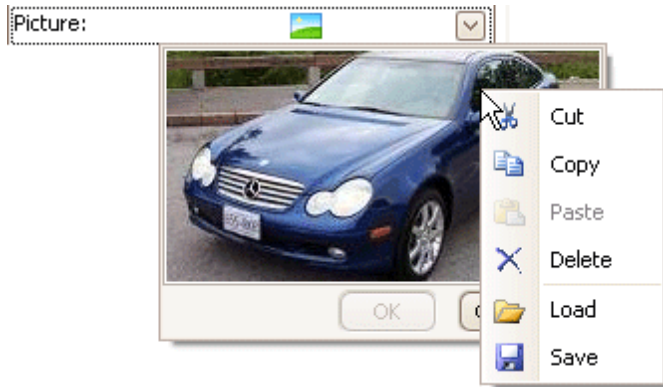
To select the previous value, press CTRL+UP ARROW. To select the next value, press CTRL+DOWN ARROW.

Note

This feature is not applicable to all editors.

Edit Images

To copy, cut, paste, load and save images in image editors, right click the image and select the required command via the context menu:

Layout Customization

Expand and Collapse Rows in Vertical Grids

Expand and Collapse Data Rows

Do one of the following:

- Focus the row and then press PLUS on the keyboard to expand the row, and MINUS to collapse the row:
- Double-click the row's header.

- Click the row's expand button.

Expand and Collapse Category Rows

Do one of the following:

- Focus the row and press PLUS on the keyboard to expand the row, and MINUS to collapse the row.

- Double-click the row.
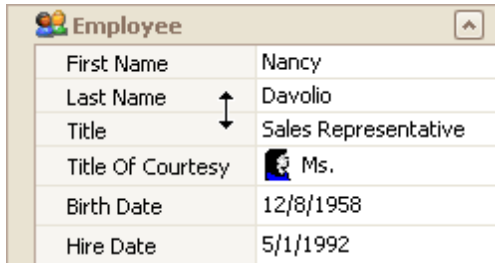- Click the row's expand button.

Expand Rows Recursively

To expand a row and all its child rows that have nested rows, focus the row and press MULTIPLY on the keyboard.

Resize Rows and Columns in Vertical Grids

Resize Rows

To resize a row, drag the row header's bottom edge vertically.
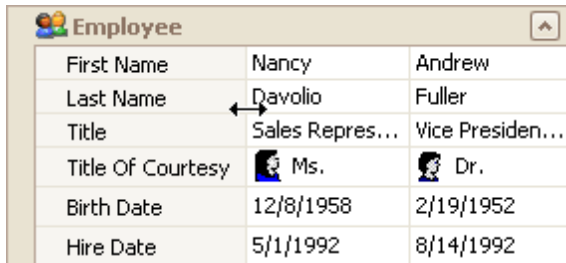
Resize Columns

To resize data columns, drag a separator between data columns horizontally.

To resize the header column, do one of the following.

- Drag the header column's right edge.

- Press CTRL+LEFT ARROW to decrease the header column's width. Press CTRL+RIGHT ARROW to increase the header column's width.
- To resize headers to the minimum width while making sure all content is visible, double-click a header's right edge.

Navigation

Action	Description
Clicking a data cell	Moves focus to the clicked cell.
Clicking a row header	Moves focus to the corresponding row while preserving column focus.
ARROW keys	Moves focus to the next cell in the corresponding direction.
TAB SHIFT+TAB	Moves focus to the next/previous cell.
HOME END	Moves focus to the first/last cell within the current row.
PAGE UP PAGE DOWN	Moves focus one page up or down.
CTRL+HOME	Moves focus to the first cell of the grid control.
CTRL+END	Moves focus to the last cell of the grid control.
CTRL+TAB	Moves focus away from the control to the next control, in tab order.