

ONESTREAM ® STUDIO REPORT DESIGN GUIDE FOR WPF

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Report Designer for WPF

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

The Report Designer allows you to create new reports from scratch, bind them to data and fully customize them. In addition to report editing capabilities, it allows you to display a report's Print Preview, send its outputs to a printer or export it to various formats.



Different aspects of using the Report Designer are covered in the following documentation sections.

Creating Reports

The tutorials in this section provide step-by-step instructions on both basic and advanced report

- customization. Report Types
- The documents in this section describe how to create reports of different types with the Report Designer. Report Elements
- The topics in this section provide information about report controls and bands used in the Report Designer. Interface Elements
- The documents in this section are dedicated to the elements of the Report Designer user interface. Report Wizard
- This documentation section describes the Report Wizard, which allows you to create reports based on built-
- in templates. Document Preview

The topics in this section describe the capabilities provided by the Print Preview.

Report Types

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

Static Report

This tutorial describes the steps needed to create a *static report*, which means that the report is not bound to a data source. This example demonstrates how to create a report with the one-page content repeated 20 times.

To create a static report, do the following.

- 1. Create a new report.
- 2. Drop the Rich Text control from the Toolbox onto the Detail band.



3. Right-click the created control and select Load File... in the invoked context menu.



- 4. In the invoked dialog, use the drop-down list to define the file's extension (.rtf, .docx, .txt, .htm or .html), select the file, and click **Open**.
- 5. Select the report, and in the Properties Panel, expand the Report Print Options property. Make sure that the Print when Data Source is Empty option is enabled, i.e., the report is allowed to be printed when it has no data source. To repeat the created report 20 times, set the Detail Count when Data Source is Empty property to 20.

Properties	-	
Report1 Report		~
8- E Search		
Report Print Options	(Report Print Options)	^
Blank Detail Count	0	
Detail Count	0	
Detail Count at Design Time	0	
Detail Count when Data Source is Empty	20	
Print when Data Source is Empty	\checkmark	~

6. To print the report content on separate pages, set the band's **Page Break** property to **After the Band**.

Properties – 🗆				
Detail V				
B- Search				
Padding	0, 0, 0, 0	^		
Page Break	After the Band 🗸			
 Scripts 	(Band Scripts)	¥		

The static report is now ready. Switch to the Print Preview tab and view the result.



Table Report

This tutorial describes how 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 and bind it to a data source.
- 2. To add a Page Header to the report, right-click on the report's surface, and in the invoked context menu, select Insert Band

and then Page Header.

	Edit	
	Edit Sort Fields	
	Edit Formatting Rules	
Ĉ	Paste	
×	Delete	
	Add Sub-Band	
	Insert Band	Report Header
	Insert Detail Report	Page Header
@	Properties	Group Header
		Group Footer
		Page Footer
		Report Footer

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

To do this, drag the Table control from the Toolbox and drop it onto the Page Header Band. Then, add a table to the Detail band in the same way.



One table will be used as a header, and the other one - for the report's detail information.

4. Type the headers into the upper table's cells. Then, bind the corresponding cells in the detail section to the appropriate data fields by expanding the **Data Bindings** option and setting the **Text** property.



5. Finally, you can customize various properties of the tables to improve their appearance. For example, in the Properties Panel, you can define the **Borders** property, as well as the **Background Color** property. To customize cell text options, specify the **Font** property.

A noteworthy feature is the capability to specify odd and even styles for the detail table.

The table report is now ready. Switch to the Print 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
Oueso Manchego La Pastora	10 - 500	¢20.00

Label Report

This tutorial describes the steps required to create a label report containing

employee badges. To accomplish this task, do the following.

- 1. Click the **New** button on the Toolbar or the plus button next to the report tab headers to create a new report.
- 2. The invoked Report Wizard will guide you through the process of creating a label report. For detailed instructions on wizard steps, refer to Label Report.
- 3. After performing the above steps you will see that the report's Detail band is divided into three different areas. The first area at the left-hand side indicates the actual available band area for controls to be placed within it. The gray area at the right- hand side is intended for the columns in which labels will be displayed, so it cannot be occupied by controls. Finally, the white area specifies an indent between the available and reserved areas.

etail	Place controls here to keep	Space for repeating columns.	
1.1.1.1.1.1.1.1.1.1.0	them together	Controls placed here will be printed incorrectly.	
Deta			

- 4. Bind a report to a data source containing information about employees.
- 5. Then, drop the required fields from the Field List onto the available Detail band's area, and adjust the layout.

0	[FirstName] [LastName]	
Detail		Space for repeating columns. Controls placed here will be printed incorrectly.

The label report is now ready. Switch your report to the Print Preview tab and view the result.



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, use a report with grouping, similar to the one created in the following tutorial: Grouping Data.

1. Select the Detail band, and in the Properties Panel, expand the Multi-Column Options section.

Set the required **Mode**, which determines whether the number of columns is manually specified or if it depends on the fixed column width.

Properties	-	
Detail Detail		~
B- E Search		
Multi-Column Options	(Multi-Column Options)	^
Column Count	1	
Column Spacing	0	
Column Width	0	
Layout	First Down, then Across	
Mode	None	-
Padding	None	
Page Break	Use Column Count	
 Scripts 	Use Column Width いん	
Snap Line Padding	10, 10, 10, 10	~

2. Then, if you've chosen to Use Column Count, set the Column Count to 2, and Column Spacing to 10. The Layout property determines the order in which records of the

Properties	_ □					
Detail Detail						
8- E Search						
Multi-Column Options	(Multi-Column Options)	^				
Column Count	2					
Column Spacing	10					
Column Width	0					
Layout	First Down, then Across					
Mode	First Down, then Across					
Padding	First Across, then Down					
Page Break	None	~				

same group are processed.

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

ail 0	-	[ProductName]	0	[UnitPric]	Space for repeating columns.
De					Controls placed here will be printed incorrectly.

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

Products by Categories

Category: 1

C:hartrem e verte \$ Cote de Blaye \$26 18.00 3.50	
Gu.Man i Fan t:istira \$4.50 Ipoh Coffee \$46.00	
Lahl::ali k oori \$18.00 Lau ghing Lum berjack \$1 4.00 Lager	
Outb ack Lager \$15.00 Rh onbra.u Klostemier \$7.75	
Sasq uatd:i Ale \$14.00 Steeley e Stout \$18.00	
Category: 2	
Aniseed Syrup \$10.00 Chef Anton's Cajun \$22.00 Se&>oning	
Chef An ton's Gumbo \$21.35 Gen en Shouyu \$15.50 Mix	
Grandmia's \$25.00 Gura Majaicra \$19.45 Boysenbeny Spread	'
Louisiana Fiery Hot \$21.05 Louisiana Hot Spiced \$17.00 Pepper Swee Olmi.	
Nocthw ood.s \$40.00 Original Frankforter \$13.00 Cranberry Sauce grune &ille	

Master-Detail Report

A report is usually called *Master-Detail* if it is used to display data from a hierarchical data source.

Produce	
Dried fruit and bean curd	
Uncle Bob's Organic Dried Pears	\$30.00
Tofu	\$23.25
Rössle Sauerkraut	\$45.60
Manjimup Dried Apples	\$53.00
Longlife Tofu	\$10.00
Seafood	AL D
Seaweed and fish	200
Ikura	\$31.00
Konbu	\$6.00
Carnarvon Tigers	\$62.50
Nord-Ost Matjeshering	\$25.89
Inlagd Sill	\$19.00

There are two main approaches for creating a master-detail report. The first approach is based on using the Detail Report band. The second approach is to create two different reports and incorporate the detail report into the master report as a subreport.

To see a detailed step-by-step demonstration of how detail report bands and subreports are used to create a masterdetail report, refer to the following tutorials.

Master-Detail Report (Detail Report Bands)

This tutorial describes the steps needed to create a *master-detail report* with hierarchically linked data using the Detail Report band. For an alternative approach, refer to Master-Detail Report (Subreports).

To start with this tutorial, create a new report and bind it to a data source. For this tutorial, in the Report Wizard, select the table that will be used as the principal table in the master-detail relation.

The topic consists of the following sections.

- Provide a Report Data Source with a Master-
- Detail Relation Design a Master-Detail Report
- View the Result

Provide a Report Data Source with a Master-Detail Relation

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

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

1. Add a detail table to the report data source. To do this, right-click the data source in the Report Explorer, and select Manage Queries... in the invoked context menu.



2. In the invoked Manage Queries dialog, click Add.

		Manage Queries	_ _ ×	
	Name			
Þ	Categories		^	
	Add	Remove	OK Cancel	

3. Then, in the invoked Data Source Wizard, click Run Query Builder.

Data Source Wizard	×
Create a query or select a stored procedure.	
Query	
SQL string:	
Run Query Builder	Finish

4. Add the detail table to the query and click $\ensuremath{\textbf{OK}}$.

Categories		Name			Join Information		select	"Produc	ts"."Produc	tID",				
CustomerCustomerDemo CustomerDemographics Customers		A Pro	ducts			^		"Produc	ts"."Produc ts"."Suppli	erID",				
			* (All Columns)					"Produc	ts"."Catego	ryID",				
		~	ProductID					"Produc	ts". "UnitPr	ice",				
Employees		\checkmark	ProductName					"Products". "UnitsInStock",						
EmployeeTerritories		\checkmark	SupplierID		Can join [Suppliers].[.	🔁		"Produc	ts"."Reorde	rLevel",				
Order Details			CategoryID		Can join [Categories.		from	"Produc	ts"."Discon Products" "	tinued" Products"				
		~	QuantityPerUnit				0.00000000							
EProducts		~	UnitPrice											
	~	~	UnitsInStock											
Columns of Products	-	~	UnitsOnOrder											
ProductID Int32		^	^	^	^		ReorderLevel			~				
Product String(40)	1	Column	Table	Alias	Output	Sorting T	ype Sort	Order	Group By	Aggregate				
SupplierID Int32	11	ProductID	Products				201			None				
Categor Int32	. 1	ProductNa	me Products							None				
Quantit String(20) *		SupplierID	Products		\checkmark					None				
Quantit String(20) *		SupplierID	Products							None				

- 5. Click Finish to exit the Data Source Wizard. Then, click OK to exit the Manage Queries dialog.
- 6. Next, specify the relation between the data source tables. To do this, right-click the data source in the **Report Explorer**, and select **Manage Relations...** in the invoked context menu.



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

Master-Detail Relation Editor	×
Categories	^
CategoriesProducts © [Categories]. [CategoryID] = [Products]. [CategoryID]	
0	
Products	
0	
	· ·
ОК	ancel

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



Design a Master-Detail Report

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

1. Allocate parts of a master report on the report's Detail band.

	[CategoryName]	
Detail 0.5	[Description]	

For the master report to be generated properly, the report's **Data Member** should be set to the master query. If you added the master query first, this property is set to the required value automatically. Otherwise, you should manually specify the data member (for instance, in the Properties Panel).

- To add a detail report band, right-click anywhere on the report's surface, and in the invoked context menu, select Insert Detail Report. When the report's data source contains a data relationship, it is displayed in the context menu.
- 3. Then, drop the required data fields from the Field List onto the Detail Report band.

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



View the Result

The master-detail report is now ready. Switch to the Print Preview tab and view the result. Master-Detail

Report (Subreports)

This tutorial describes the steps needed to create a master-detail report with hierarchically linked data using the Subreport control. For an alternative approach, refer to Master-Detail Report (Detail Report Bands).

To create a master-detail report using the subreport controls, do the following.

- Create a Master Report
- Create and Customize a Detail
- Report Embed the Subreport
- Get the Result

Create a Master Report

- 1. Create a new report and bind it to a data source. This report will be used as the master report.
- 2. Drop the required fields from the Field List panel onto the Detail band. In this example, the following report layout is used.

	0	[CategoryName]	E
Detail	0.5	[Description]	

3. Drag the Subreport control from the Toolbox and drop it onto the Detail band.

R	[CategoryName]	F 0
	[Description]		
<u> </u>		o	
		Name: subreport1 Report Source: Null	ļ
		Report Source Url: None	
		0	

Create and Customize the Detail Report

- 1. Next, add one more blank report and bind it to the same data source. It will be used as a detail report.
- 2. Drop the required fields from the Field List panel onto the Detail band. This tutorial uses the following layout for the detail report.

tail	° -	[ProductName]	[QuantityPerUnit]	[UnitPrice]	6
De					

3. To add a parameter to the report, right-click the **Parameters** section in the **Field List** and choose **Add Parameter** in the invoked context menu.



4. In the invoked Add New Parameter dialog, specify its options as shown in the image below.

	Add New Parameter
Name:	CatID
Description:	
Туре:	Number (32 bit integer)
Default Value:	0 🗘
	Show in the parameters panel
	Supports the collection of standard values
	Allow multiple values
Dynamic val	ues Static values
Data Sour	rce:
Data Men	nber:
Value Me	mber:
Display M	lember:
Filter Strin	ng:
	OK Cancel

5. Select Edit in the report's context menu. Then, in the Edit dialog, click the ellipsis button for the

Filter String property. In the invoked Filter String Editor, construct an expression where the

Category ID data field is compared to the **CatID** parameter. To access the parameter, click the icon on the right until it turns into a question mark.

	Edit	
	Edit Form	atting Rules
		Edit ×
	Data Source	sqlDataSource1
	Data Member	Products 🗸
	Filter String	
	Filter	String Editor 🛛 🗖 🗙
A	nd 😳 CategoryID Equals ?CatID 🖗	0
		OK Cancel

6. To save the detail report, click the **Save As** button in the Toolbar. Then, in the invoked standard **Save** dialog, specify the folder and file name.

Embed the Subreport

1. Next, switch back to the master report. Right-click the subreport and select Edit... in the invoked context menu. In the Edit

dialog, click the ellipsis button for the **Report Source URL** property and select the previously saved detail report.



 Then, bind the subreport's CatID parameter used as a filtering criterion to the master report's CategoryID data field, which will serve as a source of the parameter value. To do this, select Edit Parameter Bindings... in the subreport's context menu.

D Name: subreport1		¢
Report Source: Null Report Source Util: D: DetailBenort rany		Edit
Report Source on D. Detainkeport epx		Edit Parameter Bindings
+ + + + + + + + + + + + + + + + + + + +		Edit Formatting Rules
	X	Cut
	þ	Сору
	Ĉ	Paste
	×	Delete
	£3	Properties

This will invoke the **Parameter Binding Collection Editor**. Click **Add** to add new binding. In the binding properties list, specify the data field to which you want to bind a subreport parameter and the name of the parameter that you want to bind.

Parameter Bindir	ng Colleo	tion Editor – 🗖 🗙
Collection Items:		8= ≡
ParameterBinding CatID	\rightarrow	▲ Misc
		Parameter Name CatID
		Binding sqlDataSource - Categories.CategoryID
Add Remove		~
		OK Cancel

Get the Result

The master-detail report is now ready to be generated. You can view the result by switching to the Print Preview tab.

Beverages

Soft drinks coffees teas /Jeers and ales



Mar Carl

Chai	10 box e; x 20 bag;	\$13.00
Chang	24 - 12 oz bottles	\$19.00
Guarani Fanta&ica	$12 - 3Y \ ml cam$	\$4 50
Sa.; quaich Al;,	24 - 12 oz bottles	\$14.00
Steeley e Stout	24 - 12 oz bottles	\$1S.00
Coie de Blaye	12 - 11 d boitles	\$26350
Chartreme Veru-	110 cc per botti;,	\$ 18.00
lp oh Coffee	16 - '\00 g tim	\$46.00
Laughing Lumberjack Lager	24 - 12 oz bottles	\$14.00
Ouibad t Lager	24 - 3 '\\ ml bottles	\$1'\ .00
Rhcin brau Klosierbia-	24 - 05 1 boitles	\$ 11'\
Lakkaliko fui	'\00 mi	\$1S.00

Condiments

Sweet and savory sauces, relishes, spreade

Cross-Tab Report

This tutorial describes the steps needed to create a *cross-tab report* using the Pivot Grid control. This feature should not be confused with the master-detail report or table report. Additionally, the document demonstrates how to visualize data displayed in the Pivot Grid by linking it with the Chart control.

Create a Cross-Tab Report

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

- 1. Create a new empty 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, right-click it and select **Edit...** in the context menu. In the invoked dialog, expand the

Data Source drop-down and click the Add New button.

	Gr	and Total				
Grand Total		Edit Edit Formatting Rules Field Area for a New I	 Field	Row Area		
		Add Field to Area Run Designer			Edit	×
		Cut Copy Paste Delete	Data S Data N OLAP (ource 1ember Connection String		
	÷	Properties			Add New 💦	Clear

4. The invoked **Data Source 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 Binding a Report to Data, as this process is similar.

After the data source is created, it is assigned to the pivot grid's **Data Source** property. Its **Data Member** property defines from which table or view of the data source the grid obtains its data.

Properties		
pivotGrid1 Pivot Grid		~
E E Search		
Data Member	SalesPerson	^
Data Options		
Data Source	sqlDataSource1	~

O Not e

Since you have placed a Pivot Grid in the Detail band, the report's **Data Source** property should not be set. Otherwise, the Pivot Grid will be repeated at the preview as many times as there are records in the data source.

Properties		
Report1 Report		~
B Search		
Data Adapter		^
Data Member		
Data Source		\sim
Designer Options	(Designer Options)	~

5. Once again, right-click the Pivot Grid and select Run Designer... in the invoked context menu.



6. In the invoked PivotGrid Designer, click Retrieve Fields.

	PivotGrid De	esigner	-	□ ×
Main ~	Fields			
Fields Layout Printing Appearances Printing Settings	You can add and delete PivotGrid	fields and modify their settings.		
	CategoryName Country Discount	B= E Search		^
	Extended Price FirstName LastName	Caption Cell Format		
	OrderDate OrderID	Column Value Line Count Display Folder	1	
	ProductName Quantity Sales Person	Empty Value Text Empty Value Text Grand Total Cell Format		
	UnitPrice	Grand Total Text Row Value Line Count	1	
		 Total Cell Format 		~

7. 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.

		PivotGrid Designer – 🗖 🗙
Main Fields	~	Layout
Layout		Modify the XRPivotGrid's layout (sorting settings, field arrangement) and click the Apply button to apply
Printing	~	the modifications to the current XRPivotGrid. You can also save the layout to an XML file (this can be loaded and applied to other views at design time and runtime).
Appearances Printing Settings		Load Layout Save Layout Show fields selector Including Appearance Grid Preview Load Data from XML
		OrderID FirstName LastName ProductName OrderDate UnitPrice Quantity Discount Extended Pri Country Sales Person Grand Total Grand Total
		Apply

Click Apply and close the editor.

8. 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.

Properties	_ 0	-
Report1 Report	~	1
B Search		
Using Settings of the Default Printer	(Using Printer Settings)	^
Vertical Content Splitting	Smart	
Visible	\checkmark	~

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

Order ID	First N	ame	Last	Name	Produ	ct Name	Or	der Date	Unit Pric	e	Quantity	Disc	ount	
Extended	Price	Cour	ıtıy	Sales Pe	rson									
		UK											UV T.	
Category	Name	Anne Dodsworth		Micha	Michael Suyama		Robert King		Steven Buchanan		man	UK Iotal		
Beverages			\$19	9,642.55		\$9,450	.20	\$2	7,963.83		\$11,00	0.52		\$68,057.10
Condimer	nts		\$10	0,125.54		\$4,648	.47	S	8,851.37		\$2,67	75.29		\$26,300.67
Confectio	ns		\$8	8,053.16		\$6,859	.63	\$1	4,518.98		\$4,80	9.80		\$34,241.57
Dairy Proc	ducts		\$21	1,101.12		\$17,039	.04	\$2	7,621.86		\$21,93	37 .61		\$87,699.6
Grains/Ce	reals		\$1	1,245.30		\$9,410	.70	\$	6,535.50		\$4,02	27.56		\$21,219.0
Meat/Pou	ltry		\$8	8,676.66		\$9,003	.69	\$2	1,176.72		\$11,48	38.20		\$50,345.2
Produce				\$314.81		\$11,560	.70	\$1	0,753.38		\$7,10	09.02		\$29,737.9
Seafood			\$8	8,148.90		\$5,940	.70	S	7,146.58		\$5,74	4.25		\$26,980.4
Grand Tot	tal		\$71	7,308.04		\$73,913	.13	\$12	4,568.22		\$68,79	2.25		\$344,581.6

Integrate with a Chart Control

The next step is to visualize data displayed in the Pivot Grid using a Chart control. To accomplish this, perform the following steps.

1. Drop the Chart control from the Toolbox onto the report's Detail band below the Pivot Grid. After you drop the Chart, the

Chart Designer is automatically

invoked.

2. In the Designer, remove an already existing series by clicking the corresponding button.



3. Then, go to the **Data** tab at the right of the Designer's window and choose the Pivot Grid in the dedicated drop-down list.



4. After this, all the Chart's binding and layout settings are automatically adjusted. Make sure that Series, Argument and Value cells have been automatically filled with the corresponding fields. Note, values for these fields are generated based on the Pivot Grid's columns, rows and data items, respectively.



5. To avoid the overlapping of series labels, select the auto-generated series in the chart elements tree, and in the **Options** tab, disable the **Labels Visibility** check box.



- 6. If required, you can customize various settings that determine the common behavior for a bridged Chart and Pivot Grid pair. To do this, use the Chart's **Pivot Grid Data Source Options** property. This property, in turn, is linked to the **Options Chart Data Source** property of the associated Pivot Grid.
- 7. Finally, reset the report's Vertical Content Splitting option and switch to the Preview Tab to see the result.



Parametrized Report

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

To create report parameters, follow the steps below.

1. Create a new report and bind it to a data source.

2. In the Field List panel, right-click the **Parameters** section and in the invoked menu, click **Add Parameter**.



3. In the invoked Add New Parameter dialog, set the created parameter's Name and Description properties and make sure to set its Type to an appropriate value. To display this parameter in the Print Preview, enable the Show in the parameters panel option.

Add New Parameter ×						
Name:	FromDate					
Description:	From:					
Туре:	Date 🗸					
Default Value:	1/1/2016					
	Show in the parameters panel					
	Supports the collection of standard values					
	Allow multiple values					
Dynamic val	Dynamic values Static values					
Data Sour	Data Source:					
Data Men	Data Member:					
Value Me	Value Member:					
Display Member:						
Filter Strin	ıg:					
OK Cancel						

4. To assign a list of values to this report parameter, enable the **Supports the collection of standard values** option.

In the **Dynamic values** tab, you can specify a parameter's data source, data member, value member and display member. The value member defines a data field that provides values to the parameter. The display member defines a data field that provides display names for parameter values, i.e., how these values appear in the user interface available in a Print Preview.

In the **Static values** tab, you can manually fill the list of parameter values. Each parameter value has an individual description specifying how this value appears in the **Parameters Panel**.

			Add New	Falameter		
Na	ame: FromDate		FromDate			
De	Description:		From:			
Туре:			Date		~	
Default Value:		lt Value:	1/1/2016		~	
 Show in the parameters panel Supports the collection of standard values Allow multiple values Dynamic values 						
		Value		Description		
		1/1/201	б	January 1, 2016	\sim	
		4/1/201	6	April 1, 2016		
	F	6/1/201	б	June 1, 2016		
					~	
	Add		Add	Remove		
				OK 💦 Car	ncel	

- 5. Then, repeat the previous steps to create the second parameter, so that every time your report is previewed, you will be asked to specify two dates.
- 6. Next, use parameters to filter your report's data. Select report, and in the Properties Panel, click the ellipsis button for the Filter String property. 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.

	Properties						
	Report1 Report	~					
	🗄 🗮 Search						
	Data Adapter		^				
	Data Member	Orders					
	Data Source	sqlDataSource					
	Filter String						
	Tag		63				
Filter String Editor 🛛 🗖 🗙							
An	d 🕀						
OrderDate Is greater than or equal to ?FromDate @ 🕄							
OrderDate Is less than or equal to ToDate @ 8							
OK Cancel							

The Parametrized report is now ready. Switch to the Print Preview tab, define the required values in the **Parameters** panel and click **Submit**.

Paramete rs - D X			
	1/1 016	10264	Swe,den
	0 16	10265	Fran oe
From: Janua ry 1, 2016 Bl		10266	Fmland
To: 1 7/1/ 2016 PI		1026	Germ any
	1/	10268	Ven ezu ela
<u>L ReseCJ</u> <u>L} ubm</u>		10269	USA
	119 016	10270	Fmland
	119n m6	10271	USA
	1/10 /2()16	10272	USA
	1/13/2()16	10273	Germ any
	1/1412X116	10274	Fran ce
	1/1512()16	10275	Ita ly
	1116 16	102 6	M exico
	111 16	102	Germ any

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 blank report.
- 2. Drop the Chart control from the Toolbox onto the report's Detail band.



After you drop the Chart, the **Chart Designer** is automatically invoked. At this step, click **Cancel** to close the Designer, it will be used later.

3. To bind the Chart to a data source, right-click it and select **Edit...** in the context menu. Then, in the invoked dialog, expand the **Data Source** drop-down and click **Add New**.



The invoked **Data Source 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 **Binding a Report to Data**, as this process is similar.

After the data source is created, it is assigned to the Chart's **Data Source** property. Its **Data Member** property defines from which table or view of your data source the Chart obtains its data.
Edit ×		
Data Source	sqlDataSource1	~
Data Member sqlDataSource1 - Products 🔽		

O Not e

Since you have placed the Chart in the Detail band, the report's **Data Source** property should not be set. Otherwise, the Chart will be repeated at the preview as many times as there are records in the data source.

Properties	_ □
Report1 Report	~
B- E Search	
Data Adapter	^
Data Member	
Data Source	~
Designer Options	(Designer Options) 🗸

4. Once again, right-click the Chart and select **Run Designer...** in the context menu.



5. The invoked **Chart Designer** already contains one series of the **Bar** view type. To populate the series with points, select it in the tree and switch to the **Data** tab at the right of the designer's window. Choose an existing data source in the dedicated drop-down list. Then, drag-and-drop the required data fields to the **Argument** and **Value** cells to define the coordinates for series points.



6. Go to the **Properties** tab to see that the **Argument Data Member** and **Value Data Members** settings are automatically assigned to the corresponding fields.

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

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

 Create one more series with the same settings, but select the **Point** view type. To do this, locate the Series element in the chart elements tree and click the plus button. In the invoked list of series types, select the required type.

	Chart Designer			27	
• < < >	500 ·	Op	tions Properties [Data	
⊿ 📶 Chart		S	eries Points Sorting	None	
🔺 🎆 Series (1)	9	Series 1	eries Points Sorting Ke	y Argument	
Series 1	Bar Series	S	how in Legend	\checkmark	
Label	Bar	Т	ool Tip Enabled	Default	
Points		1	ool Tip Point Pattern		
Indicators (0)	Bar Stacked	Т	ool Tip Series Pattern	{S}	
🔺 🏢 XY-Diagram		۲ (op N Options	(TopNOptions)	
Default Pane	Bar Stacked 100%	1	/alue Scale Type	Numerical	
Additional Panes (0)		- E	Data		
Primary AxisX	Side By Side Bar Stacked	A	Argument Data Membe	r sqlDataSource1 - Products	
Primary AxisY			Color Data Member		
Secondary X-Axes (0)	Side By Side Bar Stacked 100%	C	Data Filters	(Collection)	
Secondary Y-Axes (0)	Bar Series 3D	S	ummary Function		
E Legend		Т	ool Tip Hint Data Merr	1	
Additional Legends (U)	Bar 3D	۲ (ool Tip Image	(Image)	
Appositions (0)		• V	/alue Data Members	UnitPrice	
	Bar 3D Stacked	.⊿ E	Elements		
	Par 2D Stacked 100%	F L	abel	(SideBySideBarSeriesLabel)	
		+ \	liew	Bar	
	Manhattan Bar	- N	Aisc		
		1	lame	Series 1	
	Side By Side Bar 3D Stacked	1	ag		
	Side By Side Bar 3D Stacked 100%			OK Cance	
	Point And Bubble Series				
	Point				
	J S V				

- 8. 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, select the Legend in the chart elements tree, and in the **Options** tab, set the **Visibility** property to **No**.
 - The point labels for **Series 1** are unnecessary, so select the **Label** node under this series and disable the **Labels Visibility** check box.
 - Rotate the X-axis labels for better readability. To do this, select the Axis X item, and in the Properties tab, adjust settings for labels using the Label property. For instance, set the Angle property to 20 and the Antialiasing 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 Print Preview and view the result.



Chart with Dynamic Series

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

Note that in this scenario, the view type and certain other settings will be the

same for all series. To adjust a Chart with automatically created series, do the

following.

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



After you drop the Chart, the **Chart Designer** is automatically invoked. At this step, click **Cancel** to close the Designer, it will be used later.

3. To bind the Chart to a data source, right-click it and select **Edit...** in the context menu. Then, in the invoked dialog, expand the **Data Source** drop-down and click **Add New**.



The invoked **Data Source 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 **Binding a Report to Data**, as this process is similar.

After the data source is created, it is assigned to the Chart's **Data Source** property. Its **Data Member** property defines from which table or view of your data source the Chart obtains its data.

Edit		
sqlDataSource1	~	
Data Member sqlDataSource1 - GSP		
	sqlDataSource1 sqlDataSource1 - GSP	

O Not e

Since you have placed a Chart in the Detail band, the report's **Data Source** property should not be set. Otherwise, the Chart will be repeated at the preview as many times as there are records in the data source.

Properties	
Report1 Report	~
8 Search	
Data Adapter	^
Data Member	
Data Source	~
Designer Options	(Designer Options) 🗸 🗸

4. Once again, right-click the Chart and select **Run Designer...** in the context menu.



5. When the chart is added to the report, a new static series is created automatically. In the invoked **Chart Designer**, remove this series by clicking the corresponding button.



6. Then, go to the **Data** tab at the right of the Designer's window. Choose an existing data source in the dedicated drop-down list and drag-and-drop the required data fields to the corresponding cells.

The **Series** cell specifies 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. Use the **Argument** and **Value** cells to define from where data for point arguments and values is obtained.



7. Switch to the Properties tab and expand the Series Template option. As you can see, the Argument Data Member and Value Data Members properties have been automatically assigned to the corresponding data fields. Make sure that the Argument Scale Type and Value Scale Type

properties are set to appropriate values.



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

$_{\circ}\,$ 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 using the Chart's **Series Name Template** property. For instance, set the **Begin Text** property to "GSP in ".

$_{\circ}$ Customize Series Labels

To avoid the overlapping of series labels, expand the Chart's **Series Template** property and set the **Labels Visibility**

property to **No**.

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 Print Preview tab and view the result.



Creating Reports

With 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. Providing Data

- The documents in this section describe how to connect reports to various kinds of data sources and provide data to report elements.
- Shaping Data

The topics in this section detail various data shaping tasks that you can perform with your

reports. Appearance Customization

- The topics in this section describe how to customize the appearance of a report or any of its elements using specific appearance options, visual styles and conditional formatting.
- Report Navigation and Interactivity

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

Designer. Adding Details about a Report

The documents in this section describe how to add technical information about a report to a generated

document. Scripting

This topic provides basic information about scripting and contains an example of using scripts to customize a report.

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
- Change Measurement Units of a
- Report Create and Delete Report
- Elements Adjust the Layout of
- Report Elements Control
- Positioning
 Adjust Page Layout
- Adjust Page Layout Settings Back Up the
- Report Layout

Create a New Report

This topic explains how to create a new report in the Report Designer.

To create a new report, do one of the following depending on the Report Designer's View.

• In the Classic View, click the New button in the Toolbar.



• In the Browser View, click the plus button located inside the tab panel next to report headers.



As a result, the Report Wizard is automatically invoked allowing you to create the required report based on built-in templates.

Change Measurement Units of a Report

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

Pixels.

To specify the Measure Unit property, do one of the following.

• Right-click the report and select Edit... in the context menu. In the invoked dialog, set this property to the required value.

	0	1				
-		1.1.1	Edit			
argir	<u></u>	Edit Formatting Rules				
Edit Formatting Rule SI			Edit Formatting Rule Sł	neet		
	0		E	Edit		×
	2		Data Source	sqlDataSource		~
etail	0		Data Member	Products		~
<u> </u>	-		Filter String			••••
mMargir	5		Detail Count at Design Time		0	\bigcirc
Botto	Î		Measure Units	Hundredths Of An Inch		~
-		L		Hundredths Of An Inch		
				Tenths Of AMillimeter		
				Pixels	К	

Select the report and switch to the Properties Panel. Expand the Measure Units drop-down and select the required value.

Properties	-	
Report1 Report		~
8- 🔳 Search		
Margins	100, 100, 100, 100	1
Measure Units	Hundredths of an Inch	1
Padding	Hundredths of an Inch	1
Page Color	Tenths of a Millimeter	r
Page Height	Pixels	
Page Width	850	٦,

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.) as well as the measurement unit of the report's Snap Grid.

Create and Delete Report Elements

This document describes how to add and delete report controls and bands in the

Report Designer. The topic consists of the following sections.

- Creating Report
- Controls Creating
- Report Bands Deleting
- Controls and Bands

Creating Report Controls

All available controls are listed in the Control Toolbox. To add a control to the currently opened report, you can drag and drop it onto an appropriate report band.



Report controls of appropriate types are created automatically, after you drag items from the Field List and drop them onto the report surface.



Creating Report Bands

To add a new band of a particular type, use the context menu of the report or bands. Right-click a report on the design surface or in the Report Explorer, and select a band to be inserted in the report.



Deleting Controls and Bands

To delete a report control or band, select it on the design surface or Report Explorer, and then do one of the following.

- Press the DELETE key.
- Right-click the report element, and in the invoked context menu, select **Delete**.



• Click the Delete 🔀 button on the Toolbar.

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

Adjust the Layout of Report Elements

This document describes how to customize the report elements layout and consists of the following sections.

- Selecting Report
- Elements Moving Report
- Elements Resizing
- Report Elements

Selecting Report Elements

To select a report control or band, click it. To select the next element in the tab order, press TAB. To select the previous element in the tab order, click SHIFT + TAB.

To select multiple elements, do one of the following.

- Click report elements while holding down the CTRL or SHIFT key.
- 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.

label1	label2	abell	abel2
label3	label4	abel3	abel4

Moving Report Elements

To move a report control, select it and drag to the new location. To move it using the keyboard, press the arrow keys.

	0	abell
Detail	0.5	

You can also move multiple selected report controls in the same way as individual controls.

The report controls can be precisely aligned to each other using the **Snap Gird** and/or **Snap Lines**. For details on this, refer to Control Positioning .

Resizing Report Elements

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

lie	0	abel1	
Deti	0.5		

You can also select multiple controls and resize them in the same way as individual controls. To resize a report band, drag its bottom border.

Control Positioning

This document describes how to easily construct professionally looking reports by precisely aligning their elements to each other. These are useful when creating new reports from scratch or when fixing cluttered report layouts with dozens of randomly scattered controls.

To select an appropriate alignment mode for report elements, use a report's **Snapping Mode**.

Properties	
Report1 Report	~
🗄 🔳 Search	
Snap Grid Size	12.5
Snapping Mode	Snap Lines 🛛 📉 🔳
Style Sheet	None
Tag	Snap Lines
Text Alignment	Snap to Grid
	Snap to Grid and Snap Lines

Snap Grid

When a report is being edited in the Report Designer, it is lined up by the snap grid. This helps to establish the distance between report elements and align them to each other.

	°_
	5.1
ta l	
ŏ	Ε

In the **Snap to Grid** mode, a report control that is being relocated using the mouse or the ARROW keys is automatically aligned with the nearest grid cell. When resizing the report control, its size is discretely changed by one grid cell. You can temporarily ignore snapping to the grid when moving and resizing controls. For this, hold down the CTRL key when using the mouse and the ALT key when using the keyboard.

You can select whether the snap grid should be drawn over a report surface by setting the **Draw the Grid** option in the **Properties Panel**.

Properties	_ □
Report1 Report	~
🗄 🔳 Search	
Display Name	^
Draw the Grid	
Draw the Watermark	□ ✓

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

Snap Lines

If the **Snap Lines** mode is selected, report elements are aligned using snap lines. These are special guide lines, which appear around the report control that is being moved or resized and indicate this control's bounds and the distance to other report elements (controls and bands).

0	label1	label2
Detail	label3	

To disable snapping using snap lines for controls being relocated or resized, additionally hold down the ALT key.

Snap Lines and Snap Grid

The Snap to Grid and Snap Lines mode enables snapping to both the snap grid and snap lines.

No Snapping

To disable snapping in your report, set the **Snapping Mode** property to **None**. In this case, report controls are moved and resized by one measurement unit defined by the **Report Unit** property.

Adjust Page Layout Settings

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. This may be useful when the report is printed in several places with different printers and printer settings. To do this, go to the Properties Panel, expand the Using Settings of the Default Printer property and enable required options.

Properties	_ □
Report1 Report	~
🗄 🗮 Search	
Page Settings	^
Landscape	
 Margins 	100, 100, 100, 100
Page Height	1100
Page Width	850
Paper Kind	Letter
Paper Name	
Printer Name	
Roll Paper	
Using Settings of the Default Printer	(Using Printer Settings)
Use Landscape	\checkmark
Use Margins	\checkmark
Use Paper Kind	× ×

Specify the Report's Page Settings

While designing the report, you can specify the page settings using the Properties Panel.

Properties	_ □
Report1 Report	~
B= ■ Search	
Page Settings	^
Landscape	\checkmark
Margins	50, 100, 100, 100
Page Height	800
Page Width	1100
Paper Kind	Custom
Paper Name	
Printer Name	
Roll Paper	· · · · · · · · · · · · · · · · · · ·

You can select one the predefined paper sizes or specify a custom paper size. To create your own paper size, set the **Paper Kind** property to **Custom**, and then specify the **Page Width** and **Page Height** properties. You can also use the **Paper Name** property to select a custom paper that is used in the printer that the document is going to be printed on.

To modify page margins, specify the **Margins** property. The margin values are expressed in the report's measurement units. In addition, you can set the page orientation using the **Landscape** property and specify whether the document is supposed to be printed on roll paper.

You can also modify the paper size, orientation and margins in the **Page Setup** dialog, which can be invoked

by clicking the Page Setup 🖾 button on the Toolbar.

Page	Setup	-	×
A4			/
Portrait	ΟL	andscape	
0.50	Тор:	1.00	
1.00	Bottom:	1.00	
		OK N Car	ncel
	Page A4 Portrait es 0.50 1.00	Page Setup	Page Setup -

Back Up the Report Layout

To guarantee that you will be able to revert your report to its original state, you can 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, click the Save As button in the Toolbar.



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

• To save the current layout of your report, click the **Save** button in the **Toolbar**, or press CTRL+S. When you click this button for the report for the first time, it invokes the **Save** dialog, which allows you to specify where the report should be saved. The subsequent clicking of this button for the same report will silently save the report to the previously specified file.



To load a previously saved report, click the **Open** button in the **Toolbar** or press CTRL+O. This invokes

• the standard Open

dialog, which allows you to locate and open report files.



Providing Data

The topics in this section describe the basic concepts of providing data for reports and their elements in the Report Designer.

- Binding a Report to Data
- Binding Report Controls to
- Data Using Mail Merge
- Report
- Parameters
- Query
- Parameters Calculated Fields

OneStream Software Report Designer for WPF

Binding 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.

The documents in this section describe how to connect reports to various kinds of data sources.

- Bind a Report to a Database
- Bind a Report to an Entity Framework Data
- Source Bind a Report to an Object Data
- Source
- Bind a Report to an Excel Data Source

Bind a Report to a Database

This document describes the steps required to connect a report

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

- 1. Create a new report.
- 2. Right-click the report and select Edit... in the context menu. In the invoked dialog, expand the Data Source drop-down and click the Add New button.



 The first page of the invoked Data Source Wizard allows you to specify the data source type. Select Database and click Next to proceed.

		Data Sourc	e Wizard	×
:	Select the data source ty	pe.		
	Database	Entity Framework	Object Binding	Excel File
			Previo	us Next Finish

4. On the next page, specify the data connection to be used. If it is absent in the list containing existing connections, select **No**, **I'd like to specify the connection parameters myself** and click **Next**.

Data Source Wizard	•
Do you want to use an existing data connection?	
No. I'd like to specify the connection parameters musclf	
Yes, let me choose an existing connection from the list	
	Previous Next Finish

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

	Data Source Wizard	<
Select the dat	a provider and specify the connection properties.	
Provider:	Microsoft SQL Server	/
Server name:	localhost	
Authentication type:	Windows authentication	-
User name:		
Password:		
Database:	Northwind	-
	Previous Next Finish	

Click Next to proceed.

6. If server authentication is required for the selected database type, the next page will prompt you to specify whether or not you want to save the user credentials along with the connection string.

Select the required option and click Next.

Data Source Wizard	×
Save the connection string.	
The connection uses server authentication. Do you want to save the user name and password?	
○ Yes, save all required parameters	
No, skip credentials for security reasons	
Previous Next	inish

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

	Data Source W	/izard	
Create a query or select a store	d procedure.		
Query			
O Stored Procedure			
SQL string:			
Query Builder		Previous	Next Finish

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

				Query	Builder					
Categories	^	Name		Join In	formation		select	1		
Customers EmployeeCustomers Employees OrderDetails Orders Products Region	×***	Karata ™				^				
Columns of Products										
Columns of Products ProductID Int64 ProductN String(40)	^					~				
ProductID Int64 ProductID String(40) SupplierID Int64 CategoryID Int64		Column	Table	Alias	Output	Sort	ting Type	Sort Order	Group By	Aggregate

9. Enable the check box near the added table to include all of its fields in the data view.

Categories	^	Name			Join Information		select	"Produc	ts"."Produc	stID",		
CustomerCustomerDemo CustomerDemographics Customers Employees EmployeeTerritories		Produ	cts			^		"Produc	ts"."Produc ts"."Suppli	tName", lerID",		
		*(' (All Columns)					"Produc	"Products"."CategoryID",			
		V Pro	oductID					"Products"."QuantityPerUnit", "Products"."UnitPrice",				
		V Pro	oductName					"Products". "UnitsInStock",	InStock",			
		Su	pplierID		Can join [Suppliers]	.[🔂		"Produc	ts"."Reorde	"."ReorderLevel",		
Order Details		✓ Ca	tegoryID	oryID	Can join [Categorie	s 🔂	from	"Produc	ts"."Discor "Products" '	tinued" "Products"		
#Orders		V Qu	antityPerUnit		1 8 10 t		IIOM GDO					
Products		V Un	itPrice									
BKegion	~	~	V Un	itsInStock								
Columns of Products	^	V Un	itsOnOrder									
ProductID Int32	•	Re Re	orderLevel			~						
Product String(40)	1	Column	Table	Alias	Output	Sorting T	ype Sort	Order	Group By	Aggregate		
SupplierID Int32		ProductID	Products		\checkmark					None		
Categor Int32		ProductName	Products							None		
Quantit String(20)		SupplierID	Products		\checkmark					None		

Click OK to exit the Query Builder. Click Finish to exit the Data Source Wizard.

The newly created SQL data source will be displayed in the **Components** node of the Report Explorer. Additionally, the hierarchy of the data source will be reflected by the Field List.



Bind a Report to an Entity Framework Data Source

This document describes the steps required to connect a report to data provided by an Entity

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

- 1. Create a new report.
- 2. Right-click the report and select **Edit...** in the context menu. In the invoked dialog, expand the **Data Source** drop-down and click the **Add New** button.



3. The first page of the invoked Data Source Wizard allows you to specify the data source type. Select Entity Framework

and click Next to proceed.

	Data Sou	rce Wizard	×
Select the data source typ	e.		
Database	Entity Framework	Object Binding	Excel File
		Previou	IS Next Finish

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

Data Source Wizard		×
Choose an existing data context or browse for an assembly.		
EFDataSource.NorthwindEntities	Browse	
	Previous Next Fin	ish

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

	Data Source Wizard	×
	Do you want to select a connection string from the list of available settings?	
0	No, specify a custom connection string	
0	Ves, let me choose from list	
ŀ	LocalSqlServer	
ľ	NorthWindEntrics	
_		
	Previous Next Finis	h

Click Next to proceed to the next page.

6. The following wizard page is available only if the current entity data model contains stored procedures. To bind to a stored procedure, click Add. Then, in the invoked window, select a required stored procedure and click OK.

	D	ata Source Wiz	ard		×
Manage Stored P	Procedures				
	Name	Туре	Expression	Value	
	Select stored	d procedures to	add - 🗖 🗙		
	ProductsInPrice Sales_by_Year (B SalesByCategory	Range (MinPrice, Ma leginning_Date, End r (CategoryName, O	xPrice) ing_Date) rdYear)		
			OK Cancel		
					~
Add Remove	Preview		Previous	Next	Finish

7. Configure the parameters to be passed to the selected stored procedure. Be sure to specify the correct parameter **Type**. Click **Finish** to exit the wizard.

		Data	Source Wizard			×
Manage Stored Proc	edu	ires				
ProductsInPriceRange (Mi		Name	Туре	Expression	Value	
		MinPrice	Decimal		10	\sim
	I	MaxPrice	Decimal		30	
< >>						>
Add Remove	P	review		Previous	Next Fini	sh 🔓

The newly created Entity Framework data source will be displayed in the **Components** node of the Report Explorer. Additionally, the hierarchy of the data source will be reflected by the Field List.

Bind a Report to an Object Data Source

This document describes the steps required to connect a report to an object data source. To bind a report to an object data source, do the following.

- 1. Create a new report.
- 2. Right-click the report and select Edit... in the context menu. In the invoked dialog, expand the Data Source drop-down and click the Add New button.



3. The first page of the invoked **Data Source Wizard** allows you to specify the data source type. Select **Object Binding** and click **Next** to proceed.

	Data Sourc	e Wizard	×
Select the data source typ	oe.		
Database	Entity Framework	Object Binding	Excel File
		Previ	ous Next Finish

4. Next, select an assembly that contains the class type definition of the data source. To exclude irrelevant assemblies from this list, select the **Show only highlighted assemblies** check box.

BindingToObj	ectDataSource			
Show only	nighlighted assembli	es		

5. On the following wizard page, select a data source type. To exclude irrelevant classes from this list, select the **Show only highlighted types** check box.

Data Source Wizard	×
Select a data source type.	
A {} BindingToObjectDataSource	
ខ្មែ Fishes	
Show only highlighted types	
Previous Next	Finish
	45

6. On the next wizard page, select whether you need to retrieve the actual data from the data source or obtain the data source schema (enabling you to edit the report layout without having access to the actual underlying data). Select the second option and click **Next** to proceed.

Data Source Wizard ×					
Select the data binding mode.					
Retrieve the data source schema Only the data source schema is retrieved from the specified object, without feeding the actual data. To manually retrieve the actual data, create a data source object's instance in code and assign it to the ObjectDataSource.DataSource property.					
 Retrieve the actual data The object data source automatically creates an instance of the specified type by using one of the available constructors. If only one constructor is available, this constructor will be used. 					
Previous Next V Finish					

 The following page allows you to select a data source constructor to be used to create an instance of the data source. To exclude irrelevant constructors from the list, select the Show only highlighted constructors check box.

	Data Source Wizard ×	
Select a data source constructor.		
(string filePath)		
Show only highlighted constructors		
	Previous Next Finish	

8. On this wizard page, you can specify the parameters for the selected constructor. To specify the constructor parameter's value, use the Value column. Enable the check box in the Expression column to make it possible to specify the parameter expression using the Expression Editor. In this case, you can pass an existing report parameter to the member or even create a new report parameter using the in-place editor.

		Data Sour	ce Wizard		×
	Specify the const	ructor parameters.			
Γ	Name	Туре	Expression	Value	
	filePath	String		D:\Fishes.txt	\sim
L					
L					
L					
L					
L					
L					
L					
					\sim
			Dravia	re Novt Einie	h
			Previou	is Next Finis	- C2

Click Finish to exit the wizard.

The newly created object data source will be displayed in the **Components** node of the Report Explorer. Additionally, the hierarchy of the data source will be reflected by the Field List.



Bind a Report to an Excel Data Source

This document describes the steps required to connect a report to data obtained from a

Microsoft Excel workbook. To bind a report to an Excel data source, do the following.

- 1. Create a new report.
- 2. Right-click the report and select **Edit...** in the context menu. In the invoked dialog, expand the **Data Source** drop-down and click the **Add New** button.



 The first page of the invoked Data Source Wizard allows you to specify the data source type. Select Excel File and click Next to proceed.

Data Source Wizard ×				
Select the data source type	2.			
Database	Entity Framework	Object Binding	Excel File	
		Previou	s Next Finish	

4. On the next wizard page, select a required Excel workbook. To do this, click the ellipsis button and locate the source file or enter the full path to this file. The XLS, XLSX and XLSM formats are supported.

Data Source Wizard	×
Select an Excel workbook or CSV file.	
D:\Excel Data Source\Northwind.xlsx	•••
Previous Next Next	Finish

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

5. The next wizard page allows you to specify import settings.

Enable the first check box to use values of the first row as field names. If you disable this option, values of the first row will be imported as data and field names will be generated automatically. You can also specify whether to include empty rows to the result data source, and whether to skip hidden rows and columns.

	Data Source	e Wizard	×
Specify import se	ttings.		
✓ Use values	of the first row as field names		
🖌 Skip empty	rows		
Skip hidden	1 rows		
🗹 Skip hidden	1 columns		
		Previous	Next Finish

Specify required settings and click Next.

6. On the next wizard page specify from which part of the workbook to extract data. All worksheets, tables

and named regions existing in the workbook are listed here.

Select the required worksheet,	table or define	d name referr	ing to the s	pecified ran	ge.	
Bheet_Categories						
Sheet_Products						
Sheet_Orders						
Range_Categories						
Table_Categories						
Table_Products						
Table_Orders						

7. The next wizard page allows you to select required columns and specify their settings.

To select a column, enable the corresponding **Selected** check box. Use **Name** to specify the custom column name and

Type to choose the column type.

Data Source Wizard					
Select required columns and specify their settings.					
Selected		Name	Туре		
		ProductID	Double	\sim	
	>	ProductName	String		
		SupplierID	Double		
	>	CategoryID	Double		
	>	QuantityPerUnit	String		
	>	UnitPrice	Double		
	>	UnitsInStock	Double		
		UnitsOnOrder	Double		
		ReorderLevel	Double		
		Discontinued	Boolean		
۱.		EAN13	String		
				\rightarrow	
Preview]		Previous Next	Finish	

On this page, you can also preview the resulting data by clicking the **Preview...** button.
Data Preview (First 1000 Rows Displayed) – 🗖 💌						
Product Name	Category ID	Quantity Per Unit	Unit Price	Units In Stock		
Chai	1	10 boxes x 20 bags	18		^	
Chang	1	24 - 12 oz bottles	19			
Aniseed Syrup	2	12 - 550 ml bottles	10			
Chef Anton's Cajun	2	48 - 6 oz jars	22			
Chef Anton's Gum	2	36 boxes	21.35			
Grandma's Boysen	2	12 - 8 oz jars	25			
Uncle Bob's Organi	7	12 - 1 lb pkgs.	30			
Northwoods Cranb	2	12 - 12 oz jars	40			
Mishi Kobe Niku	6	18 - 500 g pkgs.	97		~	
<				>		
				OK		

Click Finish to complete the wizard.

The newly created data source will be displayed in the **Components** node of the Report Explorer. Additionally, the hierarchy of the data source will be reflected by the Field List.



Binding Report Controls to Data

Report controls can either display static information or dynamic data obtained from the bound data source.

Data-bound controls are indicated by a yellow database icon, both on the Design Surface and in the Report Explorer.



To embed dynamic information to a report, if this information is contained in the report data source, you can use one of the following approaches.

- Using the Field List
- Using the Context
- Menu
- Using the Properties Panel

After a control is bound to data, you can employ additional features that are listed in the Special Capabilities section of this document.

Using the Field List

The Report Designer allows you to create a data-aware element using the Field List. To do this, switch to the Field List panel, click the desired field item and drop it onto the report band. This automatically creates a control bound to the selected data field.



Using the Context Menu

Right click an existing report control, and in the invoked context menu, click the Edit... link.



In the invoked Edit dialog, expand the Data Binding drop-down and select the required data field.



To unbind a control's property, expand the **Data Binding** drop-down and click the **Clear** button.

Using the Properties Panel

Select a control (e.g., on the Design Surface) and switch to the Properties Panel. Expand the Data Bindings option and specify a data field for the required property (e.g., Text).



To unbind a control's property, expand the corresponding drop-down and click the **Clear** button.

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 Formatting Data.

It is possible to force a control to display a result of a summary function calculated across the data field to which it is bound. For more information, see Calculating Summaries.

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 Using Mail Merge.

If you are required to perform pre-calculations over the data field to which a control is bound, you can do so by creating a

calculated field, and binding the control to it. This is detailed at Calculated Fields.

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 Report Parameters.

Using Mail Merge

The *mail merge* feature allows you to combine both static and dynamic content within the same report control. For instance, you can 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.

- Label
- Table
- Cell
- Check
 Day
 Day
- Box Bar Code
- Zip
 - Code

To embed dynamic data into a control's static content, type in data field names surrounded by [square brackets]. If this field is valid in the current data context, it will be replaced with an appropriate data value when a report is previewed or exported. Since this data field is inserted into a label's text, you may also use any prefix or postfix. Moreover, you can insert several embedded fields into the **Text** of a single control, and all these embedded fields should be processed correctly.

[Picture]	
The [CategoryName] category:	
[Description]	

The Beverages category: Soft drinks, coffees, teas, beers, and ales

To embed a parameter's value into a control's content, use the **Parameters.ParameterName** syntax.

Parameters parameter	[CategoryName]	-5
	[Caregory] (anne]	-2

Report Parameters

This document describes the main concepts of using parameters in the Report Designer and provides information on how to create parameters and pass their values.

The document consists of the following sections.

- Using Parameters
- Creating Parameters
- Passing Parameter
- Values

Using Parameters

Report parameters provide the capability to pass data of a certain type to a report and can be used in different ways listed below.

• Filtering

You can use a report parameter to filter report data according to the current parameter value by specifying the report's

Filter String. For more information, see the Filtering Data topic.

Filter String Editor 🛛 🗖 🗙
And CategoryID Equals ?CatID @ S
OK Cancel

Data Binding

To show a parameter's value in a report, drag the parameter from the Field List panel and drop it onto the required band. This creates a **Label** bound to the parameter, as with an ordinary data field.



For more information, see the Binding Report Controls to Data topic.

Calculated Fields and Conditional Formatting

Parameters can participate in constructing expressions for calculated fields and formatting rules, as well as standard data fields. The only difference is that a parameter is inserted into the expression's text using the "**Parameters.**" prefix before its name.

	Expression Editor	_ □ ×
[UnitPrice] * [Parameters.Discoun	:]	
+ - × ÷ %	(…) = ≠ < ≤	> () () ()
Functions Operators Fields Constants Parameters	[Parameters.Discount]	The type of this parameter is: Int32
		OK Cancel

• Cascading Parameters

You can filter parameter values by specifying the filtering expression that can also include other parameter values. To construct this filtering expression, set the parameter's **Look-Up Settings Type** property to **StaticList** or **DynamicList** and then specify its **Filter String** property.

Properties	_ 1		
parameterCompanyName	Parameter	1	
Search			Filter String Editor 🗖 🗖 🗙
search			And G
(Name)	parameterCompanyName	^	Country Founds 2 country @ @
Description			Country Equals (parameter Country 😈 🤡
Look-Up Settings	DynamicList		
Data Adapter		-	
Data Member	Suppliers		
Data Source	dsMasterDetail1		OK . Cancel
Display Member	dsMasterDetail1 - Suppl	-	
Filter String			
Value Member	dsMasterDetail1 - Suppl	2	
Multi-Value		~	

• Multi-Value Parameters

If a parameter is bound to a collection of standard values, it is possible to store more than one value in it. To do this, enable the parameter's **MultiValue** property.

Properties –		
categories Parameter		
8 Search		
(Name)	categories	^
Description	Categories	
Look-Up Settings	DynamicList	
Multi-Value	\checkmark	
Туре	System.String	
Value	String[]	
Visible	\checkmark	\sim

Multi-value parameters are useful when you need to filter report data against a list of values. The image below

demonstrates a correct filtering expression that incorporates a multi-value parameter.



The following image demonstrates an editor for a multi-value parameter in a Print Preview.

Paramete	ers – 🗆 ×
Categories	
	(Select All)
	✓ Beverages
	Condiments
	Produce
	✓ Seafood
	Dairy Products
	Confections
	Grains/Cereals
	Meat/Poultry
	OK Cancel:

Creating Parameters

To create report parameters, follow the steps below.

- 1. Create a new report and bind it to a data source.
- 2. In the Field List panel, right-click the **Parameters** section and in the invoked menu, click **Add Parameter**.



3. In the invoked Add New Parameter dialog, set the created parameter's Name and Description properties and make sure to set its Type to an appropriate value. To display this parameter in the Print Preview, enable the Show in the parameters panel option.

	Add New Parameter	×		
Name:	FromDate			
Description:	From:			
Туре:	Date	~		
Default Value:	1/1/2016			
	Show in the parameters panel			
	Supports the collection of standard values			
	Allow multiple values			
Dynamic val	ues Static values			
Data Sour	ce: 🗸 🗸			
Data Mem	iber:			
Value Mer	mber:			
Display M	ember:			
Filter Strin	g:			
	OK Cancel			

4. To assign a list of values to this report parameter, enable the **Supports the collection of standard values** option.

In the **Dynamic values** tab, you can specify a parameter's data source, data member, value member and display member. The value member defines a data field that provides values to the parameter. The display member defines a data field that provides display names for parameter values, i.e., how these values appear in the user interface available in a Print Preview.

In the Static values tab, you can manually fill the list of parameter values. Each parameter value has an

individual description specifying how this value appears in the Parameters Panel.

	Add New	Parameter	×
Name:	FromDate		
Description	h: From:		
Type:	Date		>
Default Va	ue: 1/1/2016		~
	Show in the p	arameters panel	
	✓ Supports the	collection of standard valu	es
	Allow multipl	e values	
Dynamic	values Static valu	es	
Valu	e	Description	
1/1/	2016	January 1, 2016	\sim
4/1/	2016	April 1, 2016	
▶ 6/1/	2016	June 1, 2016	
			\sim
	Add	Remove	
		OK N Ca	ncel
		3	

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

asked to specify two dates.

6. Next, use parameters to filter your report's data. Select report, and in the Properties Panel, click the ellipsis button for the Filter String property. 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.



Passing Parameter Values

OneStream Software Report Designer for WPF

To view the resulting report in the Report Designer, switch to the Print Preview tab. For a report containing at least one visible parameter, the dedicated Parameters Panel is automatically created in the Preview. This panel provides appropriate editors based on parameter types. To pass parameter values to the report, specify the required values and click **Submit**.

From:	January 1, 2016	~
To:	7/1/2016	~
	Reset	Submit

				1
	1/1/2016	10264	Sweden	1
	1/2/2016	10265	France	
	1/3/2016	10266	Finland	
	1/6/2016	10267	Germany	
	1/7/2016	10268	Venezuela	
	1/8/2016	10269	USA	
	1/9/2016	10270	Finland	
	1/9/2016	10271	USA	
	1/10/2016	10272	USA	
	1/13/2016	10273	Germany	
	1/14/2016	10274	France	
	1/15/2016	10275	Italy	
	1/16/2016	10276	Mexico	
	1/17/2016	10277	Germany	
1	1/20/2016			

Query Parameters

A query parameter holds an external value that is inserted into an SQL statement before query execution. This value can be either static or dynamically generated by an associated expression.

In the Report Designer, query parameters are typically used in the following scenarios.

- Passed as criteria to the WHERE part of an SQL statement to perform data source level filtering. The query parameter's value is inserted into the resulting SQL query string in the position of the corresponding placeholder, which has the "@QueryParameterName" form.
- Passed as actual parameters to a stored procedure. See the Customize the Query topic to learn more.

To create and configure query parameters to filter report data, do the following.

1. When creating a new data-bound report using the Report Wizard or binding an existing one to an SQL data source, go to the query customization page.

To open this page to customize an existing data source, right-click this data source in the Report Explorer and select

Manage Queries in the context menu.



Then, in the invoked **Manage Queries** dialog, click the ellipsis button for the required query.



2. In the invoked Data Source Wizard, click the Run Query Builder... button.

Create a c	juery or select a stored procedure.
Ouerv	
⊖ Stored	l Procedure
SQL string	j:
from	"Products"."ProductID", "Products"."ProductName", "Products"."SupplierID", "Products"."CategoryID", "Products"."QuantityPerUnit", "Products"."UnitPrice", "Products"."UnitsInStock", "Products"."UnitsOnOrder", "Products"."ReorderLevel", "Products"."Discontinued" "dbo"."Products" "Products"
	Har . Draviour Navt Finish

3. In the Query Builder, construct the query, and then, click the Filter... button.

Categories	^		Name			Join Inform	ation		select "Pr	oducts"."Pr	oductID",		
CustomerCustomerDemo		F	A Produc	ts				^	"Pr	oducts . Pr	pplierID",		
CustomerDemographics			- * (/	All Columns)					"Pr	oducts"."Ca	tegoryID",	+ 11	
Customers			Pro Pro	ductID					"Pr	oducts . Qu	itPrice",	,	
Employees			Pro	oductName					"Pr	oducts"."Un	itsInStock",		
EmployeeTerritories			Su	oplierID		Can join [Su	ippli 🚯	T	"Pr	oducts"."Re	orderLevel",		
Order Details			Ca	tegoryID		Can join [Ca	ateg	-	"Pr	oducts"."Di	scontinued"		
Orders				antityPerUnit					IIOM OD	o . Froduct.	s Froduces	5 · · · · ·	
Products			☑ Un	itPrice									
Region			V Un	itsInStock									
Shippers			V Un	itsOnOrder									
Suppliers	~		Rei Rei	orderl evel									
Columns of Categories	^		✓ Dis	continued				-					
Categor Int32	A.		Column	Table	Ali	as	Output		Sorting Type	Sort Order	Group By	Aggregate	
Categor String(15)		E	ProductID	Products					2.11			None	
Descript String(10			ProductName	Products			~					None	
Picture ByteArray	4		SupplierID	Products			~					None	
			sepp.cnb	, ioused			100				lines.		

4. In the invoked Filter Editor, construct a filtering expression that will be used to filter resulting data at the data source level. To access parameters, click the icon on the right until it turns into a question mark. Then, click the parameter placeholder and select Create Query Parameter.

Filter Editor	_ 🗖 ×
Filter Group Filter	
And	Darameter> 😧 🕄 Create Query Parameter Bind To
Select only O records starting with index O Select only distinct values]
	OK Cancel

5. In the invoked **Query Parameter Editor**, specify the parameter's name and appropriate value type, and click **OK**.

Query Param	eter editor 🗕 🗖 🌅	٢.
📰 🔳 Search		
✓ Design		\sim
Name	MaxPrice	
Туре	Number (decimal)	
Value	0	
		\sim
	OK Cancel	

Close the Filter Editor, and then, complete the Query Builder.

6. Now, the newly constructed SQL query appears in string form on this wizard page. The query parameter is passed to the

WHERE part of the SQL string and has the "@QueryParameterName" form.

Data Source Wizard	×
Create a query or select a stored procedure.	
Query	
Stored Procedure	
SQL string:	
<pre>select "Products"."Products"."ProductName", "Products"."SupplierID", "Products"."CategoryID", "Products"."QuantityPerUnit", "Products"."UnitPrice", "Products"."UnitsInStock", "Products"."UnitsOnOrder", "Products"."ReorderLevel", "Products"."Discontinued" from "dbo"."Products" "Products" where ("Products"."UnitPrice" <= @MaxPrice)</pre>	
tun Query Builder Previous Next Next	ish

Then, click **Next** to proceed to the next wizard page.

7. The next wizard page provides access to query parameters and allows you to add, configure and remove it. On this page, specify the actual value (either static or dynamic) for a query parameter.

$_{\circ}$ Specifying a static value

To specify a static value for a query parameter, select the parameter's value type, and then specify its actual value in the **Value** column according to the selected type.

		Data So	oui	rce Wizard		×
	Configure query parar	neters and preview the re	esul	t.		
	Name	Туре		Expression	Value	
1	MaxPrice	Number (decimal)	~		3d]	^
						\sim
Pre	eview Add	Remove		Prev	ious Next	Finish

$_{\circ}$ Specifying a dynamic value

To use a dynamically generated value, do the following.

First, activate the **Expression** check box for the required parameter. This allows you to use an expression to dynamically calculate the parameter's actual value.

To map the query parameter to a new report parameter, click the plus button for the **Value** property, and in the invoked dialog, specify the required report parameter settings. Be sure to specify the report parameter type according to the type of the respective query parameter.

Name	Туре	Expression	Value	
I MaxPrice	Number (decimal)	 ✓ 	0	✓ ··· + ^
	Description Multi-Value Name Type Value Visible	Maximum Unit Price	~ _	~

Then, expand the drop-down list for the **Value** property and select the created report parameter. This list also contains report parameters that already exist in a report.

		Data Sou	ırce Wizard		×
	Configure query param	neters and preview the resu	ılt.		
	Name	Туре	Expression	Value	
I	MaxPrice	Number (decimal)	Y	0 v ··· + [Parameters.parameter1]	^
					~
Pre	eview Add	Remove		Previous Next Finis	;h

You can also create a complex expression for a query parameter. To do this, click the ellipsis button for the **Value**

property and construct the required expression in the invoked Expression Editor.

8. Click **Finish** to exit the wizard.

Calculated Fields

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 based on a specific expression.

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 item inside the data source, and in the invoked menu, select Add Calculated Field.



2. In the Field List, select the created field and switch to the Properties Panel. Make sure to change the **Field Type** property to an appropriate value.

Properties		
calculatedField1 Calculated	d Field	~
🗄 🗮 Search		
Display Name	calculatedField1	^
Expression		
Field Type	Float	× .

3. Then, create an expression for the calculated field.

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

	🗄 🗏 Se	earch				
	Display N	Name	calculatedField1	^		
	Expressio	on				
	Field Typ	e	Float	63		
		Expres	sion Editor			
+ -	X : %	() =	: ≠ < ≤ ; ts	≥ >	•	()
Functions Operators	× ÷ %	 (···) = Product Cate Disc 	ts egonyID continued	≥ >	()	(1)

Expression.

Click **Fields** to see the field list. To add a data field or report parameter to this expression, double-click the required name. A data field is inserted into the expression's text using its name in [square brackets], and parameters are inserted using the "**Parameters**." prefix before their names. Use the toolbar to add operators between field names.

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

4. Finally, drag the calculated field from the Field List onto the required band like an ordinary data field.

				Field List	
				sqlDataSource1	^
Product Name	-	Unit Price	Order Amount		
[ProductName]	0	[UnitPrice] 🔍	[calculatedField1]	LI23 CategoryID	
			Υς. Ξ	ab ProductName	
				UnitPrice	
				1223 UnitsOnOrder	~

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

P rnduct Name	nit Price	Order Amount	
Chan g	519 .00	\$ 760 00	
Ani;;eed Syrup	510.0 0	\$ 700 00	
Que; o Cabral e;	521.0 0	\$630 00	
Sir Rodn e ,;; S co n e;	5 10 00	\$400 00	
Gorgonz ola Tolino	5 1 25	\$8 7) 00	
	-		ı
Ma;;c arpon e Fabi oli	53 2 .0 0	51280 00	•
Ma;;c arpon e Fabi oli Gravad Iax	53 2 .0 0 526 .00	51280 00 51300 00	•
Ma;;c arpon e Fabi oli Gravad Iax Ip oh Coffee	53 2 .0 0 526 .00 546 .0 0	51280 00 51300 00 \$46000	•
Ma;;c arpon e Fabi oli Gravad Iax Ip oh Coffee Rogede .sild	53 2 .0 0 526 .00 546 .0 0 \$95 0	51280 00 51300 00 \$46000 \$66)00	•
Ma;;c arpon e Fabi oli Gravad Iax Ip oh Coffee Rogede .sild Choco la de	53 2 .0 0 526 .00 546 .0 0 \$95 0 5 12 .n	51280 00 51300 00 \$46000 \$66)00 \$8 92 .SO	•

-

Shaping Data

The topics in this section illustrate how to shape data in reports in various ways using the Report Designer.

- Grouping
- Data Sorting
- Data
- Filtering Data
- Calculating Summaries
- Formatting Data

Grouping Data

This document demonstrates how to group report data. Grouping allows you to split data into groups based on identical values in a field or fields. 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. This tutorial starts with the following report.

sportHeader1	0.5	Products by Categ	ories	
Detail Re	0	[ProductName]	•[UnitPrice]	

2. Next, switch to the Group and Sort Panel, and click Add a Group. In the invoked drop-down list, select a data member across which the report is to be grouped.



3. After this, the Group Header band is added to the report with the specified data member set as its grouping criterion.

Drop the data field, which is specified as the grouping criterion, from the Field List panel onto the Group Header band. This data field will be displayed as a header for each group.



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

- 4
^

Use the **Sort Order** drop-down list to manage the sorting order of the group's items (ascending or descending) or to disable sorting in grouped data. 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.

5. Then, you can calculate a total across the group by placing a Label onto the Group Footer band and specifying its Summary

properties in the following way.

		Properties		_ □
		label5 Label		~
1	Sum (Illes Drivel) R	8= E Search		
pote		✓ Summary	Group, Sum, {0:\$0.00}	^
upFe		Format String	{0:\$0.00}	
Gro		Function	Sum	
	فرحا حافر بالحافر فالحافر بالحافر بالحافر بالحافر بالحافر	Ignore Null Values		20
		Running	Group	~

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 Print Preview tab and view the result.

Products by Categories		
Category: 1		
Guaraná Fantástica	\$4.50	
Sasquatch Ale	\$14.00	
Laughing Lumberjack Lager	\$14.00	
Rhönbräu Klosterbier	\$7.75	
	\$40.25	
Category: 2		
Aniseed Symp	\$10.00	
Original Frank furter güne Soße	\$13.00	
	\$23.00	
Category: 3		
Teatime Chocolate Biscuits	\$9.20	
Cir Dadaarda C		

Sorting Data

This document demonstrates how to sort report data. Note that as with data grouping, sorting can be performed only if a report is bound to a data source. This example uses the report created in the following tutorial: Grouping Data.

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 drop-down list, choose a data field across which the report is to be sorted.



2. To manage the sorting order, use the **Sort Order** drop-down list.

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 report is now ready. Switch to the Print 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
Lakkaliköön	\$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 Symp	\$10.00
Chef Anton's Cajun Seasoning	\$22.00

Filtering Data

If a report is bound to a data source that contains far more data rows than are necessary for processing report creation, you can exclude excessive or undesired data. To accomplish this, construct a filtering expression using single or multiple data fields.

This document describes two approaches to filtering data in the Report Designer.

- Filter Data at the Report
- Level Filter Data at the Data
- Source Level

Filter Data at the Report Level

To filter a report's data, do the following.

1. Right-click the report and select **Edit...** in the context menu. In the invoked dialog, click the ellipsis button for the **Filter String** property.

Edit	
Edit For	matting Rules
Edit For	matting Rule Sheet
	Edit
Data Source	sqlDataSource1
Data Member	Products 🗸
Filter String	
Detail Count at Design 1	lime 0 🗘
Measure Units	Hundredths Of An Inch 🔽

2. Then, in the invoked Filter String Editor, specify the filtering expression.

Filter String Editor 🛛 🗖 🗙
Or 🛛
And 🕒
ProductName Begins with C 🖉 😒
QuantityPerUnit Is greater than 20 🖉 🕴
And 🖸
ProductName Is any of (Chai 🖉, Konbu 🧷, Pavlova 🖉) 😳 😒
UnitPrice Is less than 50.0 🖉 😂
OK Cancel

When creating a filter criteria, you can create and edit logical expressions, and also join the expression groups with And, Or, NotAnd, and NotOr operators. In every filter condition, the left part contains either the data field name, or the name of the calculated field, which exists in this data source at the same level. The right part of the condition contains either a certain numerical or string value, or the name of the report parameter.

To access parameters, click the icon on the right, until it turns into a question mark.

Filter String Editor 🛛 🗖 🗙	
And CategoryID Equals ?CatID @ CategoryID Equals ?CategoryID	
OK Cancel	

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

Filter Data at the Data Source Level

To filter data before it has been supplied to a report, you can modify a query of an SqlDataSource assigned to the report's **Data Source** property. To do this, perform the following steps.

- 1. Invoke the Manage Queries dialog using one of the following ways.
 - Switch to the Report Explorer and right-click the data source item under the Components node. In the invoked context menu, select the Manage Queries... command.



Select a data source, and in the Properties Panel, click the ellipsis button for the **Queries** property.

0

Properties		
sqlDataSource SqlDat	taSource	~
B⊐		
⊿ Data		^
Queries	(Collection)	
Relations	(Collection)	3
✓ Design		
(Name)	sqlDataSource	

2. In the invoked dialog, click the ellipsis button corresponding to the required query.

		Manage Queries -		×
	Name			
r	Products			··· ^
				13
				~
	Add Remove	ОК	Can	cel

3. Next, in the invoked Data Source Wizard, click the Run Query Builder... button.

Query	,
⊖ Store	1 Procedure
SQL strin	g:
from	"Products"."ProductID", "Products"."ProductName", "Products"."SupplierID", "Products"."CategoryID", "Products"."QuantityPerUnit", "Products"."UnitPrice", "Products"."UnitsInStock", "Products"."UnitsOnOrder", "Products"."ReorderLevel", "Products"."Discontinued" "dbo"."Products" "Products"

4. In the Query Builder, click the Filter... button.

Categories Nar		Name		Joi	Join Information			select "Products". "ProductID",																													
CustomerCustomerDemo CustomerDemographics Customers Employees		F	A Produ	cts				^	"Pr	oducts"."Su	pplierID",																										
			□ * (All Columns)					"Products"."CategoryID",																												
			V Pr	roductID					"Pr	oducts"."Un	itPrice",	,																									
			V Pr	oductName					"Pr	oducts"."Un	itsInStock",																										
EmployeeTerritories			V Su	pplierID	Car	n join [Suppli	Ð		"Products". "ReorderLevel",																												
Order Details			V Ca	tegoryID	Car	join [Categ	ICateg		"Products". "Discontinued"																												
Orders			V Qu	uantityPerUnit			- Internet		TION OD	o . rioducc	5 110000002																										
Products			V Ur	nitPrice																																	
Region	∼ Categories		V Ur	nitsInStock																																	
Shippers			V Ur	nitsOnOrder																																	
Suppliers		~	~	~	~	~	~	¥		I R€	orderLevel																										
Columns of Categories - /																							-	-	-		-		Di	scontinued							
Categor Int32	<		Column	Table	Alias	Outr	ut		Sorting Type	Sort Order	Group By	Aggregate	1																								
Categor String(15)	Categor String(15)		E	ProductID	Products								None																								
Descript String(10			ProductName	Products			~					None																									
Picture ByteArray			SupplierID	Products			~					None																									
							10000 A				Alterna.																										

5. In the invoked **Filter Editor**, construct a filtering expression that will be used to filter resulting data at the data source level.

Filter Editor 🛛 🗖 🗙					
Filter Group Filter					
And And					
Select only 0 records starting with index 0 Select only distinct values					
OK Cancel					

Note that it is possible to embed query parameters into the expression.

Calculating Summaries

With the Report Designer, you can force a data-bound control to calculate one of the standard summary functions (Average,

Sum, Count, Max, Min, etc.).

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

1. Create a new report and bind it to a data source. This tutorial starts with the following report layout.

ReportHeader1	0.2	Product Name	Units on Order
Detail		[ProductName]	[UnitsOnOrder]

2. To display a summary at the bottom of the report, add the Report Footer band. To do this, right-click the report's area and in the invoked context menu, select **Insert Band**, and then **Report Footer**.



3. Switch to the Field List panel, select the field for which a summary will be calculated and drop it onto the created Report Footer band.



 Right-click the newly created Label and select Edit... in the context menu. In the invoked dialog, click the ellipsis button for the Summary property.

Products.Uni	tsOnOrdel		-
	Edit	2	1
	Edit For	natting Rules	
	🔏 Cut 🗍 Copy		Edit ×
	Paste	Text Data Binding	label1 sqlDataSource1 - Produc
	😢 Propert	Format String Summary	None
		Format String	

5. In the invoked **Summary Editor**, specify the summary options. In the **Summary function** drop-down, select **Sum**. Note that in addition to a simple summary, you can choose among numerous built-in functions (such as **Count** and **Average**).

The **Summary Running** option is set to **Report** to ensure that all values from the specified data field are taken into account. You can also define a summary function's **Format string**. Note that value formatting is applied to a summary independent of general formatting and has a greater priority.

The **Ignore NULL values** option would not affect the result in this example, since NULL values are treated like zeros by default. This option makes sense for functions like **Count** or **Average**, because the number of elements counted will depend on this option.

Summary E	Editor – ×
Bound Field: Products.UnitsOnOrder Summary function: Sum Sum Format string: Total Units: {0}	5 7 -2 5 4 10 3 Total Units: 32
	OK Cancel

To save the settings and close the dialog, click **OK**. Switch your report to the Print Preview tab to view the result.

Pr oduct Name	nits on Orde _i r
а	
Aniseed Syrup	0
Que;o C abra les	,:,0
Sir Ro dne y _, 1 S cone ,	40
Gorgonz ola Telino	70
Masca rpone Fabicli	40
Gra v ad lax	50
Ipoh Coffee	10
R ogede sild	0
Cho colade	0
Maxil aku	60
Gnocchi din onn a AJ, ice	10
Wumn ers guie Sernmelkn cida	8 0
Louisiana Hoi Spiced Cl=	100
Sco ttish Longbrea ds	10
Ouiback Lager	10
Longlife lo fu	20

Tot://I	
Units: 780	

Formatting Data

This topic describes how to change value formatting of report elements in the Report Designer. For instance, you can format a numeric value as a currency, display a date/time value in one of the standard forms depending on the culture, etc.

To apply value formatting for a data-bound control's content, do the following.

1. Right-click the control, and select **Edit...** in the context menu. In the invoked dialog, click the ellipsis button for the **Format String** property.

UnitPri	ce]	Ē		
Ċ		Edit		
	Edit Formatting Rules		tting Rules	
	*	Cut		Edit
		Copy Paste	Text	label1
	×	Delete	Data Binding	sqlDataSource - Product 🗸
	٢	Properties	Format String	
			Summary	None

2. In the invoked **Format String Editor**, select one of the predefined standard formats or specify a custom one.

Format String Editor – ×				
Category	Standard Formats Custom Formats			
Number	\$0.00			
Percent Currency	c			
Special General	c1 c2			
	Sample: \$100.00			
	OK Cancel			

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

In a similar way, you can apply formatting to a control's **Bookmark**, **Navigation URL** and **Tag** properties using the **Properties Panel**. Note that the set of bindable properties depends on the control type.

Properties				
label1 Label				
B Search				
Data Bindings		^		
Bookmark	sqlDataSource - Products.ProductNar	ne		
FormatString	1	·:;		
Navigation URL		6		
Tag				
Text	sqlDataSource - Products.UnitPrice	~		

When a summary function is applied to a control's dynamic content, value formatting is specified separately as described in the Calculating Summaries document.

Independently from general and summary value formatting, you can specify a native XSLX format string, which is preserved when the report is exported to XLSX. You can do this using a control's **XIsx Format String** property.

Appearance Customization

The topics in this section describe how to customize the appearance of a report or any of its elements using specific appearance options, visual styles and conditional formatting.

This section consists of the following topics.

- Understanding Style
- Concepts Use Odd and
- Even Styles
- Conditionally Change a Control's
- Appearance Conditionally Hide Bands
- Conditionally Change a Label's Text

Understanding Style Concepts

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

This document consists of the following sections.

- Appearance
- Properties Visual
- Styles
- Styles Priority

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 are not 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.



Visual Styles

In addition to the capability to specify appearance property values for every control and band, you can create comprehensive global *styles* (which are stored in the report's *style sheet*), and then assign them to individual report elements.

Click the ellipsis button for the report's **Style Sheet** property to invoke the **Styles Editor**, which allows you to manage a report's style sheets, customize them, save them to a file and load from it.

	Properties	-		
	Report1 Report	~	•	
	🗄 🗮 Search			
	Page Color	White	^	
	Style Sheet	(Collection)		
	Style Sheet's Path	h	5	
	Styl	les Editor		×
G 😑 🥒 🦻	i 🔁 🔁			
myEvenStyle		✓ Appearance		^
myOddStyle		Padding	(Not set)	- 11
		Font	(Not set)	- 11
		Foreground Color	Black	
		Background Color	#FF9ACCFF	
		Border Color	Black	
		Borders	(Not set)	\sim
			OK Can	cel

You can also invoke the **Styles Editor** by right-clicking the report and selecting **Edit Style Sheet...** in the context menu.

		10.5 Li li li li li li li	
	0		Edit
argin	5 1.1.1		Edit Formatting Rules
pMa	0.1		Edit Formatting Rule Sheet
P.	. I. I		Edit Style Sheet
	°		Edit Watermark
tail	1.1.1	- C	Paste
õ	0.5	×	Delete
gin	° -		Insert Band
Man	1.1.1		Insert Detail Report
ottom	0.5	3	Properties
80	1.1		

To assign a particular style to a control, invoke the drop-down list for its **Style** property. Then, select one of the styles stored in a report's sheet collection or click the plus button to create a new style sheet.

	Properties	_ □
abell 0	label1 Label	>
	Style Priority	(Style Priority) ^
	▲ Styles	(Collection)
	Even Style	
	Odd Style	
	Style	✓ +
	Text Alignment	myEvenStyle
	Text Trimming	myOddStyle
	▲ Behavior	~

Note that if a style is assigned to a band, it is applied to all controls that the band contains.

You can also use the Report Explorer to access the style collection. Commands of the context menu allow you to add, edit, clone or delete a style.



Styles Priority

A style defines the same appearance properties that are defined by a control's (or band's) appearance properties. When both styles and individual appearance settings are assigned to an element, you can control the priority of their options using 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 following image demonstrates how the Style Priority property works.



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.

O Not e

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When conditional formatting is applied to an element, its appearance definition has the highest priority.
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. In the Properties Panel, click the ellipsis button for the report's Style Sheet property.

Properties		
Report1 Report		~
B= E Search		
Snapping Mode	Snap Lines	^
Style Sheet	(Collection)	
Style Sheet's Path		3
Tag		~

3. In the invoked **Styles Editor**, click the plus button to add a new style. Then, adjust the required options, e.g., set the

Background Color.

Styles	Editor	-		×
G 😑 🥒 🖐 🔚				
controlStyle1	Appearance			^
	Background Color	#FFEBEBEB		
	Border Color	Black		
	Border Dash Style	(Not set)		
	Border Width	1		
	Borders	(Not set)		\sim
		ок	Cance	el

Click **OK** to apply changes and quit the dialog.

4. Select the detail table, and in the Properties Panel, expand its Styles option. Invoke the drop-down list for the Even Style

property and select the created style.

		Properties	_ □
eader1		table2 Table	~
eportH		8= E Search	
ž –	Product Unit Quantity Unit Price	→ A Styles	(Collection)
etail	ProductName] U[QuantityPerUnit] U[UnitPrice]	Even Style	✓ +
ă I		Odd Style	controlStyle1
		Style	4
		Tag	~

If required, perform the same steps to create and assign an odd style. Switch to the Print Preview tab and view the result.

Product Unit Quantil)' U	nit
1	rice ^{.22} 0
Chai 10 boxes x 20 bags	\$18 _0 0
Cli.ang 24 - 12 oz bottles	\$19 _0 0
Aniseed Syrup 12 - 550 ml bonles	\$10 _00
Chef Anton's 48 - 6 oz jars Cajun Seasoning	\$22 -00
Chef Anton's 36 boxes Gumbo Mix	\$2L 35
GrnmIma's 12 - 8 oz jars Boysenberry Spread	\$25 _0 0
Uncle Bob's 12 - I lb pkgs Organic Dfi.ed Pears	\$30 _0 O
:Nor,th voods 12 - 12 oz jars Cranberry Sauce	\$40 _0 0
"11.shi. Kobe iNiku 18 - 500 g pkgs_	\$ 9'7 _0 0
Tk t.rra 12 - 200 ml jars	\$31 _0 0
Queso Cabrales I kg pkg_	\$2 1-00
Queso Manchego 1n _s.n	

Conditionally Change a Control's Appearance

This tutorial describes how to conditionally change a control's appearance (e.g., make a Label's text red if its value exceeds a certain threshold). Thanks to the *formatting rules* feature, no scripts are required to complete this task, so you should not have to write any code.

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

- 1. Create a new report and bind it to a data source.
- 2. Right-click the report and select Edit Formatting Rule Sheet... in the invoked context menu.



3. In the invoked **Formatting Rule Sheet Editor**, create a new formatting rule using the plus button, and then, click the ellipsis button for its **Condition** property.

Formatting Ru	ıle Sheet Editor 🛛 🗕 🗖 🗙
🕒 😑 🥒 🦻	8-
formattingRule1	▲ Behavior ^
	Condition
	▶ Formatting
	⊿ Data
	Data Member
	Data Source 🗸 🗸
	OK Cancel

4. In the invoked **Expression Editor**, define the required Boolean condition (which means that its result is returned as either

true or false). This tutorial demonstrates how to format fields if the UnitPrice value is greater than 30.

	Expression Editor – 🗖 🗙
[UnitPrice] > 30	
+-×:%	$(\cdots) = \neq < \leqslant \geqslant > (0) (0)$
Functions	Products
Operators	222 CategoryID
Fields	Discontinued
Constants	ProductID
Variables	ab ProductName
Parameters	ab QuantityPerUnit
	123 ReorderLevel
	123 UnitPrice V
	OK Cancel

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

5. Return to the **Formatting Rule Sheet Editor** and define the formatting to be applied, e.g., specify the desired foreground color.

Formatting Ru	le Sheet Editor		×
6) 😑 🥒 🦻			
formattingRule1	✓ Behavior		^
	Condition	[UnitPrice] > 30	
	▲ Formatting		
	Background Color	#00FFFFFF	
	Border Color	Black	
	Border Dash Style	(Not set)	
	Border Width	1	
	Borders	(Not set)	
	Font	(Not set)	
	Foreground Color	#FFC00000	~
		OK Canc	el

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

6. Finally, select the band or control to which the formatting rule should be applied (in this example, it is the Detail band), and select Edit Formatting Rules... in the context menu.



7. In the invoked **Formatting Rules Editor**, move the rule from left to right using the right arrow button so that you can apply the rule for this band.

Formatting Rules Editor 🛛 🗖 🗙			
Rules available in a report:	Rules applied to a control:		
	formattingRule1		
Edit Rule Sheet			
	OK Cancel		

If multiple rules are applied, it is possible to customize their precedence using the up and down arrow buttons. 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.

Switch your report to the Print Preview tab and view the result.

Product Name	Unit Prfr.e
Chai	\$ 18.00
Chang	\$19 <u>0</u> 0
Anisee d Syrup	\$10 <u>0</u> 0
Chef Anion's Cajun Searoning	\$22.00
Chef Anton ¹ Gumbo Mix	\$213 5
Gran dma'; Boysenbeny Spread	\$2)_00
Unde Bob's Organic Dried Pean	\$30 <u>0</u> 0
Northwoods Cranbeny SaUDe	\$4000
]!j_fili Kobe Niku	\$97 00
Ikura	\$3 100
Que;o Cabra!eS	\$21.00
Que;o Manch ego La Partora	\$3!-! 00
Konbu	\$6.00
Tofu	\$23.25
Genen Shouyu	\$ 15.50
Pavlova	\$1 -45
Alice Mutton	\$39 00
Cam ar"on Tigm	\$62) 0
Teatnn e C h oco late ;, ,,, •	<u>-</u> J

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, use a report with grouping similar to the one created in the following tutorial: Grouping Data. To conditionally hide bands in a report, do the following.

1. Right-click the Group Header and select Edit Formatting Rules... in its context menu.



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

Fo	rmatting Rules Editor 🛛 🗕 🗖 🗙
Rules available in a report:	Rules applied to a control:
Edit Rule Sheet	
45	
	OK Cancel

 Then, in the invoked Formatting Rule Sheet Editor, click the plus button to create a new rule. Set its Visible property to

No, and click the ellipsis button for the Condition property.

	ormatting Rule Sheet Editor	- • ×
6 😑 🥒 🦻		
formattingRule1	✓ Behavior	^
	Condition	
	 Formatting 	13
	Background Color #00F	FFFFF
	Border Color Black	c
	Border Dash Style (Not set)
	Border Width 1	
	Borders (Not set)
	Font (Not set)
	Foreground Color Black	c
	Padding (Not set))
	Text Alignment (Not set)
	Visible No	~
	ОК	Cancel

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

		Expression Editor		- 🗆 ×
[CategoryID] < 2				
$+ - \times$	%	(…) = ≠ < ≤	≥ >	• • •
Functions Operators Fields Constants Variables		Products CategoryID CategoryID Discontinued ProductID Discontinued ProductName		
				OK Cancel

To quit the Formatting Rule Sheet Editor and save changes, click OK.

5. Return to the **Formatting Rules Editor** and move the created rule to the dialog's right section using the right arrow button to make it active.

For	matting	Rules Editor	- • ×
Rules available in a report:		Rules applied to a control:	
formattingRule1			
Edit Rule Sneet			
		ОК	Cancel

6. Apply the same formatting rule to the report's Detail band.

Switch to the Print Preview and view the result. In this example, you can see that the first category is not shown. So, the conditional formatting was applied properly.

Droducto by Catagorian	
Products by Categories	
Category: 2	
Aniseed Syrup	\$10.00
Chef Anton's Cajun Seasoning	\$22.00
Chef Anton's Gumbo Mix	\$21.35
Genen Shouyu	\$15.50
Grandma's Boysenberry Spread	\$25.00
Gula Malacca	\$19.45
Louisiana Fiery Hot Pepper Sauce	\$21.05
Louisiana Hot Spiced Okra	\$17.00
Northwoods Cranberry Sauce	\$40.00
Original Frank furter güne Soße	\$13.00
Sirop d'érable	\$28.50
Vegie-spread	\$43.90
Category: 3	
Chocolade	\$12.75

Conditionally Change a Label's Text

This tutorial demonstrates how to change a label's text if a certain condition is met. No scripts are required to accomplish this task.

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

- 1. Create a new report and bind it to a data source.
- 2. Next, add a calculated field. To do this, in the Field List, right-click any item inside the created data source, and in the invoked context menu, select Add Calculated Field.



3. Select the calculated field, and in the Properties Panel, set its **Field Type** to **String**. Then, click the ellipsis button for the

Expression property.

In the invoked **Expression Editor**, specify the required logical condition for the calculated field (e.g., **lif([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).

	Properties	-	
	calculatedField1	~	
	🗄 🔳 Search		
	(Name)	calculatedField1	^
	Data Member	Products	
	Data Source		
	Display Name	calculatedField1	
	Expression	•	
	Field Type	String	63
	E	pression Editor	_ 🗆 ×
+-×	< ÷ % (···)	= ≠ < ≤ ;	> () () ()
Functions	4	Products	
Operators		123 CategoryID	
Fields		ab Productivame	
Constants Parameters		UnitsOnOrder	
			OK Cancel

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

4. Finally, drop the required data fields and the created calculated field from the Field List onto the report's Detail band.

		Field List	
		▲ 🔲 sqlDataSource1	^
Product Name	Units on Order	Products	
		f calculatedField1	
[ProductName]	[calculatedField1]	123 CategoryID	1959 Lon (+)
	5. 11	ab ProductName	
		UnitPrice	
		123 UnitsOnOrder	~

The report is now ready. Switch to the Print Preview tab and view the result.

Product Name	Units on Order
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

Report Navigation and Interactivity

The topics in this section explain how to establish navigation through a report in different ways and enable editing reports in Print Preview.

This section consists of the following topics.

- Add Bookmarks
- Create a Table of
- Contents Create
- Hyperlinks
- Add a Cross-Reference
- Enable Content Editing in Print Preview

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, use a report with grouping, similar to the one created in the following tutorial: Grouping Data.

To create a report with bookmarks, do the following.

 Select the label placed in the Group Header band, and in the Properties Panel, expand the Data Bindings property. As this control is bound to data, bind its Bookmark property to the same data field (in this example, CategoryID).



Note that as with other bindable properties, you can also apply value formatting to the **Bookmark** property (e.g., **Category:**

{0}).

2. In the same way, select the label in the Detail band and set its **Bookmark** property to the **ProductName** data field.

		Properties		
		label2 Label	~	
	·····	B= E Search		
Detail	[ProductName]	🖷 🔺 Data Bindings	^	
	<u>↓</u> _ <u>↓</u>	Bookmark	× 1	
		Navigation URL	▲	^
		Tag	Products	
		▶ Text	CategoryID	
		▶ Font	Discontinued	
		Foreground Color	ProductID	
			ab ProductName	
			ab QuantityPerUnit 场	~
			Clear	

3. Then, for the same label, set the **Parent Bookmark** property to the Group Header's label to define the Document Map's hierarchy.

ProductName]	Properties	
	B Search Navigation Target Navigation URL Parent Bookmark Printing	A C Report1
	Right to Left	ReportHeader1 GroupHeader1 A label4 Detail Clear

4. Finally, select the report itself and assign text to its **Bookmark** property, which determines the caption of the root node of the Document Map.

Properties	-	-
Report1 Report	Ĩ	~
🗄 🔳 Search		
A Navigation		^
Bookmark	Products by Categories	
Bookmark Duplicate Suppress	\checkmark	\sim

The report with bookmarks is now ready. Switch to the Print Preview tab and use the Document Map Panel to navigate through the report.

Pro	oducts by Categories	^
A	Category: 1	
	Chai	
	Chang	
	Chartreuse verte	
	Côte de Blaye	
	Guaraná Fantástica	
	Ipoh Coffee	
	Lakkalikööri	
	Laughing Lumberjack Lager	
	Outback Lager	
	Rhönbräu Klosterbier	
	Sasquatch Ale	
	Steeleye Stout	
۲	Category: 2	
	Category: 3	
۲	Category: 4	~

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
Lakkaliköön	\$18.00
Laughing Lumberjack Lager	\$14.00
Outback Lager	\$15.00
Rhönbräu Klosterbier	\$7.75
Sasquatch Ale	\$14.00
Steeleye Stout	\$18.00
Category: 2	
Aniseed Symp	\$10.00
Chef Anton's Cajun Seasoning	\$22.00

Create a Table of Contents

This tutorial describes how to create a report with a table of contents, which is automatically created based on the bookmarks existing in a report.

To insert a table of contents into a report, do the following.

1. Drop the Table Of Contents control from the Toolbox onto the Report Header Band.



Alternatively, you can double-click the control in the Toolbox. In this case, if the report does not contain a Report Header, it will be created automatically, so that the table of contents can be added to it.

2. Double-click the title of the table of contents and specify its text.

Table of Content	S		
Level (Default)			

3. To customize the title's appearance, use the **Level Title** option's settings available in the **Properties** Panel.

Properties –					
tableOfContents1 Table Of Contents					
B= Search					
▲ Level Title	(Table Of Contents Title)		^		
Back Color	#00FFFFFF				
Font	Times New Roman, 9.75pt				
Fore Color	Black				
Height	23				
Padding	0, 0, 0, 0				
Text	Table of Contents				
Text Alignment	Top Left		~		

4. To customize the appearance of all other levels, use the Level Default option's settings.

Properties		_ [•
tableOfContents1 Tab	le Of Contents	~	,
8- E Search			
▲ Level Default	(Table Of Contents Level)		^
Back Color	#00FFFFFF		
Font	Times New Roman, 9.75pt		
Fore Color	Black		
Height	23		
Indent	0		
Leader Symbol			
Padding	0, 0, 0, 0		~

5. To customize a specific level individually, add a corresponding item to the **Levels** collection of the table of contents.

Table of Conte	ents
Level (Default)	Edit Levels
	Properties
Table Of Contents Lev	vel Collection Editor 🗖 🗖 🗙
Collection Items:	8- =
	^
Add Remove	~
	OK Cancel

After adding a new level, you can access and customize its properties.

The table of contents are now ready. Switch to the Print Preview and view the result.

	Table of Contents	
Category:	1	4
	Chai	4
	Chang	4
	Chartreuse verte	4
	Côte de Blaye	4
	Guaraná Fantástica	4
	Ipoh Coffee	4
	Lakkalikööri	4
	Laughing Lumberjack Lager	4
	Outback Lager	4
	Rhönbräu Klosterbier	4
	Sasquatch Ale	4
	Steeleye Stout	4
Category:	2	4
	Aniseed Syrup	4
	Chef Anton's Cajun Seasoning	.4
	Chef Anton's Gumbo Mix	4
	0	

Create Hyperlinks

This tutorial demonstrates how to embed a *hyperlink* into your report. In this case, a label behaves as a hyperlink in a report's Print 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 Properties Panel, change its **Text** to the one required for the link.



 Then, set the Navigation Target to the required value (_blank, _parent, _search, _self, or _top), and define the required Navigation URL.

		Properties		
		label1 Label		>
	o <u> </u>	🗧 📃 Search		
etail	ovww.somewhere.com	A Navigation		^
		Bookmark		
		Navigation Target	_blank	
		Navigation URL	http://www.somewhere.com	
		Parent Bookmark		~

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

The hyperlink is now ready. Switch to the Print Preview tab and view the result.

www.somewhere.com

Add a Cross-Reference

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

To demonstrate this feature, use a report with grouping similar to the one created in the following tutorial:

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

 Drop a label onto the created Report Header band, which will serve as the report's headline. Click the label to type the desired contents into it. Then, in the Properties Panel, set its Name property to reportTop.

		Properties	
eader1	Products by Categories	reportTop Label	~
portH€	022 11	B= E Search	
Re		▲ Design	^
		(Name) reportTop	~

2. To accompany the existing Group Header with the corresponding Footer, in the Group and Sort Panel, enable the **Show Footer** option.

0	iro	up And Sort			_	-
<u>,</u>	j Ad	ld a Group 🝷 💁 Add a S	ort 🝷 💥 Remo	ove 🙆 Move Up	🕑 Move Down	- 4
	Fie	ld	Sort Order	Show Header	Show Footer	
₽		Products.CategoryID	Ascending		K	^
					63	\sim

3. Then, drop a label onto the Group Footer band. Change the label's **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.

		Properties			
er -		label1 Label			~
upFoot	Top of Report	🗄 🗏 Search			
Grou		A Navigation			^
		Bookmark			
		Navigation Target	_self		
		Navigation URL			~
		Parent Bookmark			\sim
			reportTop		
			label4	6	
			label2		
			label3		_

The report with cross-references is now ready. Switch to the Print Preview tab and view the result.

Products by Categories

Category: 1

Chai	\$18_00
Chang	\$19 <u>0</u> 0
Guarani Fanta.siica	\$4-50
Sasq uatd:i Ale	\$14_00
Sted eye Stout	\$18 <u>0</u> 0
Cote de Blaye	\$263-50
Ch artrem e verte	\$18 <u>0</u> 0
Ipoh Coffee	\$46 <u>0</u> 0
Laughin g Lum berjack lager	\$14_00
Outb ack Lager	\$15 <u>00</u>
Rhonbrau Klosteroier	\$7 -75
Lillalik ofui	\$18 <u>0</u> 0

T op of Report Category: 2

Enable Content Editing in Print Preview

This document describes how to enable editing the content of specific controls OneStream Software Report Designer for WPF in Print Preview. This topic consists of the following sections.

- Text Editing
- Check Box
- Editing

Text Editing

The Label, Table Cell and Character Comb report controls can be assigned editors to customize their content in Print Preview. To demonstrate this feature, use the report similar to one created in the following tutorial: Grouping Data.

To enable content editing, do the following.

1. Select one or more controls that you want to become editable in Print Preview (to select multiple controls, click them while holding down CTRL or SHIFT).

Switch to the Properties Panel, expand the Edit Options property and select the check box for the Enabled property.

			Properties		
	° -	Products by Categories	label2 Label		~
Gro	-	Category: [CategoryID]	E		
	-	ProductName UnitPrice	Edit Options		•
Deti	-		Editor Name		
			Enabled	X	
			ID	6	
			Read Only		

2. To provide a mask for editing decimal values of the UnitPrice field, set the Editor Name property to Fixed-Point Positive

to assign the required editor with a corresponding mask.

Products by Categories Category: [CategoryID] [ProductName] [ProductNam				Properties		_ 0	-
Category: [CategoryID] [ProductName] [UnitPrice] Leti Options Leti O	Products by (ategories		label3 Label		>	•
Edit Options Editor Name Editor Name Editor Name Enabled Numeric Date-Time Let ID Read Only Keep Together Multiline Evided-Point Evided-Point Evided-Point Evided-Point Evided-Point Evided-Point Evided-Point Evided-Point Evided-Point	Category: [CategoryID]		8二			1
Editor Name Enabled Numeric Date-Time Let ID Read Only Integer Integer Keep Together Multiline Fixed-Point Fixed-Point	• [DroductName		6 [UnutBrick	Edit Options			^
Enabled Numeric Date-Time Let ID Read Only Keep Together Multiline Eixed-Point Eixed-Poin				Editor Name		~	
ID Read Only Keep Together Multiline Integer Positive Fixed-Point Fixed-Point Fixed-Point				Enabled	Numeric	Date-Time	Letters
Read Only Integer Keep Together Integer Positive Multiline Fixed-Point				ID			and a second
Keep Together Integer Positive Multiline Fixed-Point Eived-Point Positive Fixed-Point				Read Only	Integer		
Multiline Fixed-Point				Keep Together	Integer P	ositive	
Eved-Point Positive				Multiline	Fixed-Po	int	
Theorem to share by					Fixed-Po	int Positive	4
							0

Switch to the Print Preview tab. To highlight all editing fields available in the document, click the Editing button in the Print Preview toolbar.

Clicking a field will invoke the appropriate editor. To apply the entered values and navigate between editing

OneStream Software Report Designer for WPF

fields, use the TAB

Rep	port1	× +					Report De	esigner Pr	int Preview	
Save File	Print Quick Print Print	Page Scal Setup	e First Previous Page Page I Navigati	Next Last Page Page on	Q Zoom Out Zoom	Zoom In	Export Send Export	Docum	eters 📑 nent Map 🚳 onails 🔯 Document	Editing Fields Search Watermark
			Produc Categ	ts by Cate	egories					
			Chai				\$18.00			
			Chang			19	9.00 0			
			Chartre	use verte			\$18.00			
			Côte d	Blaye		9	\$263.50			
			Guarar	iá Fantástica			\$4.50			
			Ipoh C	offee			\$46.00			

Check Box Editing

In addition to editing text, you can enable switching Check Box states in Print Preview. When two or more check boxes have identical **Group ID** values, the corresponding editors belong to a single logical group (i.e., only one option can be selected within a group at a time).



O Not e

The changes made to a control's content in Print Preview have no effect on other parts of the document (e.g., the related summary results, grouping, sorting, bookmarks and other settings that have already been processed before generating the document).

Adding Details about a Report

This document lists topics that describe how to add technical information about a report to a generated document. This information includes the report's creation date, the author's name, as well as text and/or image watermarks.

This section consists of the following examples.

- Add Page Numbers and System Information to
- a Report Create or Modify Watermarks of a
- Report

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, drop the Page Info control from the Control Toolbox onto a band.



Then, follow the instructions below for your specific task.

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

Add Page Numbers

To insert page numbers in a report, do the following.

1. Right-click the **Page Info** control, and in the context menu, click the **Edit...** link. Then, in the invoked dialog, specify the

Page Information property.



You can choose one of the following formats for displaying page numbers.

- Number displays the current page number only.
- Number of Total displays the current page number with total pages.
- o Rom Low Number the current page number is written in lowercase
- Roman letters. Rom Hi Number the current page number is written in
- ^o uppercase Roman letters. **Total** displays the total number of pages.

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2. To format the control's text, in the Edit dialog, specify the required format (e.g., Page {0} of {1}).

	Edit	×
Page Information	Number Of Total	~
Start Page Number		1 🗘
Format	Page {0} of {1}	
Running Band		\sim
Anchor Vertically	None	~

3. You can also specify the **Start Page Number** and **Running Band** properties. For instance, the latter is available when there are groups in a report, and you are required to apply independent page numbering for them.

The result is shown below.

Page 1 of 3	
Chai	\$18.00
Chang	\$19.00
Aniseed Symp	\$10.00
Chef Anton's Cajun Seasoning	\$22.00
Chef Anton's Gumbo Mix	\$21.35
Grandma's Boysenberry Spread	\$25.00
Uncle Bob's Organic Dried Pears	\$30.00

Add System Date and Time

To insert the current system date and time into a report, perform the steps below.

1. Right-click the **Page Info** control and select **Edit...** in the context menu. In the invoked dialog, expand the **Page Information** drop-down and select **Date Time**.



2. To format the control's text, you can either type it in the **Format** property, or click its ellipsis button and use the **Format String Editor**.

		Edit	×	
	Page Information Start Page Numb Format Running Band	er		
	Fo	ormat String	Editor	_ ×
Category DateTime Number Percent Currency Special General	Star MI MI MI MI Vyv Vyv dd dd MI	ndard Formats dryy 4/dd/yy 4/dd/yyyy 7/MM/dd 7/-MM-dd -MMM-yy dd, MMMM d, yy 4MM d, yyyy	Custom Formats	
	San	ıple:	Thursday, June 9, 201	6
			ОК	Cancel

The result is shown below.

Thursday, June 9, 2016	
Chai	\$18.00
Chang	\$19.00
Aniseed Symp	\$10.00
Chef Anton's Cajun Seasoning	\$22.00
Class Antonia Cart	

Add the User Name

To display the current user name in a report, do the following.

1. Right-click the **Page Info** control and select **Edit...** in the context menu. In the invoked dialog, expand the **Page Information** drop-down and select **User Name**.

PageHeader1	Edit	Formatting Rules
	Page Information Start Page Number Format Running Band	Number Of Total
	Anchor Vertically	Rom Hi Number Date Time User Name

2. To format the control's text, in the Edit dialog, specify the required format (e.g., Current User: {0}).

	Edit	×
Page Information	User Name	~
Start Page Number		1 🗘
Format	Current User: {0}	••••
Running Band		~
Anchor Vertically	None	~

The following image demonstrates the result.

Current User: Andrew Fuller	
Chai	\$18.00
Chang	\$19.00
Aniseed Symp	\$10.00
Chef Anton's Cajun Seasoning	\$22.00

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 the Preview mode.

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

1. Right-click the report, and in the invoked context menu, click the Watermark... link.



2. In the **Text Watermark** tab of the invoked **Watermark** dialog, enter the watermark's text and specify the required properties such as the **Direction**, **Transparency**, **Color**, etc.

	W	atermark			×
THE R. S. INDE WARE THAT	Text Waterma Text: Direction: Font: Transparency: Position In front Behind	rk Picture Watermark This is a simple watermark Forward Diagonal Verdana Verdana Page Range All Pages	Color: [Size: [Red 36	2
Clear All				OK Ca	incel

3. Then, switch to the **Picture Watermark** tab to load the image to be used as a watermark. To do this, click the ellipsis button for the **Image** property. In the invoked dialog, select the file containing the image that you wish to load and click **Open**.

	Watermark	
THRANK	Text Watermark Picture Watermark Image: Size mode: Clip Tiling Open	×
Je wate		ρ
a simp.	Organize 🔻 New folder	0
THIS	This PC	
	🗣 Network	
	~	
Clear All	File name: Watermark.png V Image files (*.jpg,*.png)	~
	Open Cancel	

4. Next, define the picture's properties, such as the Size mode, Alignment, Transparency, etc.

	Waterma	ark ×
	Text Watermark Pic	ture Watermark
\bigcirc	Image:	Watermark.png ····
*	Size mode:	Clip 🔽 Tiling
orma	Horizontal alignment:	Left
and and	Vertical alignment:	Center
imple	Transparency:	
WEIGO	Position	Page Range
	◯ In front	• All
\bigcirc \bigcirc \land	Behind	O Pages For example: 1,3,5-12
Clear All		OK Cancel

5. In addition, you can select a watermark position behind or in front of the document, and specify the page range in which the watermark will be printed.

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 Print Preview tab and view the result.

_	C _{Ne.me} n	1 <mark>S Ito</mark> m's I	1
	(10011.1 i ri rilih	B?!III II t ci c ,cmj:icilh!r."1	All is knawn meitlie billiff it trifi lift Un'-ollbeil, ist. Br ar s. illnd T. I¥fill cara atamines in dll!Skii fy entain titeri with pate Dit B. T. Br. in waters 6, fill !!fd the wine thing tr. alcointri rifih cu: d'rl DfS. II. Win t tilliff dl. IBCCM DfS. II. Win t tilliff dl. IBCCM trifictDL5 rl h.B. H FirmMily t. entait billi of tr dCll'HIG (II. cCCCL!!5-icinig" id sims er !!rd Hirathin wine '!!II tra USe tafy.
		iei	OII I OII in #L5trs#11 r.H Lits the areas around legoon c?HrH.iInd #rboit OII'II. The fix emperior is a valuable k till #BHT # sc i #99Ht porting fish that fights with fLT"(when I Herlita s] and fish is just as tender to t !! st till the very vound.
	Gi?!r.t H ?!ui W r !!!!iii e	Creilil"1.f5 i.n:ij?!t l!5	hli ili t IM td '?ll t w m. Jt j5 foord in er .ilr li, r
	Blue Angelfish	Fm, ee, ol t'U,	Habitat is around toucers, caves, coral ledges and crevices in shallow waters. Swims alone or in proups.
	rt‼lii Reekec,l	Va- b.1:'i	Also known as the ca Offillim trett, it ill fetilidial etr.d.cor?! reefs from at II ow to V-!!!ff v111terL F prim!!ril:., ec, lim!!!!
		1?.te. "?! ,c:	c, rn !!!! tre: hsL-,l'lil'L <i>i t.tl</i> i r el' c yi==; !!ndl • H e: firefa l'I is i.=; lty sld i ry itii t lle & y. td d iv y t r.i51!! . F vcrit oe: r, r e c:r 12St .!! n5.
Butterflyfi	Ort	C -=!.	III y li rn pilirs , I'r ctl:III. oe: c, a, III, I'r li rr c:m Y-er/
Shark	Swell Shark	Cept alos cyllium ventrics um	t:t/fis llow ref cYl=s!!r-iil cr i c'=5 rife:!p 1 tre:c st rajd rNu e iNN . TNis!NPer r tri51!!m isles!!!'llori=t:2: NS!!nd1istci?!!y rm=551 to biYhefi.
Ray	Bat Ray	edifornica	Alsok:nv:ll li tile (nr.ller r!ly te:: 128ed Its fill§ in.ll?i ted l'I 115 to cri=;h itli me I ci' cri=;t:?: Jn'll.?M sb=y=;, sl !!r'll e:!p wit l'I li!!f'fy td: Ccm li.
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11 c,,;	Lingcod	Ophiodon elongatus	Wi yfbt.n:lfrcm1111:llt <i>r</i> tr stra to y wlltersc.u-g risllittc.sltr.dorn lirlbolt Cll":ls r:Jb.115 i?ndi ll.15t.a?tr.i=!li. T lie lirg::cd li = YC(!Nb.cll" pr ta ti ml!r:ffifferect: rillies.iIndia::top15'=5.
12 Scupn	Cabezon	SG:d pi! CN: m!!rmi:::1"t II5	Often,∞ 11 17 g i≓lt m ‼rbl 5cl.]jin_ Foi.n:ICVerrccky cr 1ii" I-era:::rl.llit bottClI":!!irrClI":!!i!rClI":!!!!tw tom ,!!t y w Cerli, it r prim rity m -crLit-ce ns !!ndIm oll.15k.!i.
1] Spadefisi	Atl!!d ic S'p=Wi s III	Chaetodiperus faber	f.ot.n:l ir.im i "W!!ter i?r.i=!!li i.!!r cx.n:l r li, "Wr el:loi:ti i?r.d l)-i . Tlie til:rf, .!!!-b!!!ck le!! d- irt m c-1:i cd e=;!i i m t ile li II ,!i I cdii li !!!f==;.ilndl .r.J m !! rq O'i!e
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Scripting

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
- Maintaining Scripts
- 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. Scripting is made available to extend the standard functionality as far as may be required.

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.

The Report Designer allows you to write scripts using the Script Editor. This editor supports C# and Visual **Basic**.NET scripting languages. This means that the scripting language is independent from the language used to create the report. The language is specified by the Script Language property of a report. The selected scripting language must be the same for all scripts used in a report.

Properties –				
Report1 Report	~			
8- E Search				
Script Language	CSharp 🔀 🖌	^		
Scripts	CSharp 😽			
Show Margin Lines i	VisualBasic	4		
Show Print Margins		~		

Maintaining Scripts

Each report element has its own set of events, which are individual for each element type. To handle an event of a report element, do one of the following.

• Select the required report element (e.g., on the Design Surface). In the Properties Panel, expand the Scripts property and click the plus button for the event.

Properties		
Report1 Report		~
8- E Search		
▲ Scripts	(Report Scripts)	^
After Print	`	1
Band's Height Changed		63
Before Print		
Data Source Demanded		
Data Source's Row Changed		~

• Click the **Scripts** button () in the Toolbar to display the Script Editor. Choose the required report element in the dedicated drop-down list at the left top of the Script Editor. Then, select one of the available events in another list at the right top.

Report1	\checkmark	Validate
	Fill Empty Space	FillEmptySpace
	Print Progress	PrintProgress
	Parameters Request Before Show	ParametersRequestBeforeShow
	Parameters Changed	ParametersRequestValueChanged
	Parameters Submitted	ParametersRequestSubmit
	Data Source Demanded	DataSourceDemanded
	Band's Height Changed	BandHeightChanged
	Data Source's Row Changed	DataSourceRowChanged
	After Print	AfterPrint
	Before Print	BeforePrint
Code Description		Line Colu
		<u>^</u>
		~

After the event is specified, a code template is automatically generated in the current scripting language and added in the Script Editor.

Report1	✓ OnAfterPrint	Validate
1 private 2 3 } 4	<pre>void Report1_AfterPrint(object sender, Syste</pre>	em.EventArgs e) {

To check for errors in the report's script, click the **Validate** button. The validation result is displayed in the errors panel at the bottom of the Script Editor. Double-click the error item in the panel's list to go to the corresponding line of code. If all scripts are valid, the errors panel is empty.

	Code	Description	Line	Column	
8	CS1002	; expected	2	11	\sim
8	CS1002	; expected	7	10	
		1			
					~

Example: Custom Summary

This example demonstrates how to display the total number of product unit packs in a group.

To perform this, execute steps similar to the ones described in Calculating Summaries, except that for the summary field, you should set the **Function** property to **Custom**.

		Properties	
Gro.	Category: [CategoryID]		<u> </u>
	[ProductName] 🧧 [UnitsO	nOrd 🖳 🗧 📃 Search	
0.11	&ustom([UnitsOnOrder])	✓ Summary	Group, Custom
	0	Format String	
		Function	Custom
		Ignore Null Va	lues 🗌
		Running	Group

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

Properties – 🗆	
label1 Label	~
8- E Search	
Summary Calculated	^
Summary Get Result	
Summary Reset	
Summary Row Changed	~

You can handle these events in the following way.

C#

```
// Declare a summary and a pack.
double totalUnits = 0;
double pack = 15;
private void label1_SummaryReset(object sender, System.EventArgs e) {
   // Reset the result each time a group is printed.
   tota Units = 0;
}
private void label1 SummaryRowChanged(object sender, System.EventArgs e) {
    // Calculate a summary.
    totalUnits += Convert.ToDouble(GetCurrentColumnValue("UnitsOnOrder"));
}
private void label1_SummaryGetResult(object sender,
DevExpress.XtraReports.UI.SummaryGetResuItEventArgs 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;
}
```

VB.NET

Finally, switch to the Print Preview tab and view the result.

Category: 1

C:hang Ipoh Coffee Outback Lager Total Packs : 4	40 10 10
Category: 2	
Anis eed. § yrnp Loui siana Hot Spiced Olm; Total Packs : 12	70 100
Category: 3 CI:w colade Maxilaku Scottish Longbreads ToSifraRodh ey' s Scones	70 60 10 40

Report Elements

In the Report Designer, 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).

To learn more about these report elements, see the following documents.

- Report
- Controls
 Report
- Bands

Report Controls

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

The following table lists the available controls (in the same order as in the Toolbox).

ICON	DESCRIPTION
A	The most basic Label control is intended to display static or dynamic text or both in your report. In addition, it can be used to calculate standard summary functions across a data field.
\checkmark	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.
A	The Rich Text control allows you to display formatted text in your report. It can display static or dynamic text or both. You can also load content to the Rich Text from an external TXT or RTF file (which can contain images).
	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 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).
	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).
ab	The Character Comb control displays text so that each character is printed in an individual cell.
5	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 report sections. The Line cannot cross report bands, as opposed to the Cross-band Line control.
I	The Shape control allows you to embed simple graphic objects into your report. You can choose one of the multiple predefined shapes (e.g., rectangles, ellipses, arrows, polygons, crosses and brackets of various kinds).
	The Bar Code control transforms its content into a bar code of the specified type. Multiple standard bar code types are supported.
88	The Zip Code control renders a numeric postal code that is used to identify the mail address in some countries. This control is not related to the Zone Improvement Plan (ZIP) code used by the United States Postal Service.

	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). See Chart with Static Series and Chart with Dynamic Series for more information.
	The Gauge control provides you with the capability to embed graphic gauges into your report.
~~~	The <b>Sparkline</b> control displays a compact chart that is commonly used to reflect the flow of data for every row in a report.
ICON	DESCRIPTION
Σ	The <b>Pivot Grid</b> 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.
Ĩ	The <b>Subreport</b> control allows you to include other reports in your current report. To learn more, see Master-Detail Report (Subreports).
	The <b>Table Of Contents</b> control generates a table of contents based on bookmarks specified for report elements.
6	The <b>Page Info</b> control is intended to add page numbers and system information to a report (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.
	The <b>Page Break</b> control's sole purpose is to insert a page delimiter at any point within a report.
	The <b>Cross-band Line</b> control allows you to draw a line through several report bands. This can be useful if you need to visually emphasize a section consisting of multiple band areas. In other aspects, it is similar to a regular Line.
₽₽  ₽  ₽	The <b>Cross-band Box</b> control allows you to draw a rectangle through several report bands. This can be useful if you need to visually encompass a section consisting of multiple band areas.

To learn how to create report controls and change their layout, refer to Create and Delete Report Elements and Adjust the Layout of Report Elements.
## **Report Bands**

A Report Band is a specific area on a report page, used to define how to render report controls that belong to it, their rendering order and how many times they are rendered. In the Report Designer, every report consists of a number of bands, each of a different type.

This document consists of the following sections.

- Available
- Bands Band Positions
- Editing Bands

### **Available Bands**

The following table lists all available band types.

BAND	DESCRIPTION
Top Margin Band	Located on the top margin of every page, above the <b>Page Header</b> and <b>Report Header</b> . This band is intended for displaying page numbers or certain supplementary information (e.g., current system time or the user name).
Repor t Heade r Band	Located at the beginning of a report. This band is intended to display some introductory information, e.g., the report's name, company logo, date of creation and user name, etc.
Page Heade r Band	Located at the top of every page, below the <b>Top Margin</b> and <b>Report Header</b> . This band is the best place for information that should be printed on every page. For example, use it to display the header of a table which is continued from the previous page.
Grou p Heade r Band	Located at the beginning of every group or at the top of the page in case it is split across pages. This band specifies grouping criteria and is used to display information at the beginning of a group of records. To learn more, refer to Grouping Data.
Detail Band	Located in the central part of a report between all other bands. This band cannot be deleted since the present report structure includes the <b>Detail</b> band in its core. This band displays a single record at a time from the bound data source, or simply holds unbound controls if there is no data source assigned to a report. For more information on data binding, refer to Providing Data.
Detai I Repo rt Band	Located below the <b>Detail</b> band and used to incorporate one report into another in master-detail reports. It is quite different from the <b>Detail</b> band, since it holds the whole detail report in a master-detail report layout, and therefore can contain other types of bands within it. To learn more about detail reports, refer to Master-Detail Report (Detail Report Bands).
Grou p Foot er Ban d	Located at the end of every group or at the bottom of the page if its group is split across pages. This band is primarily intended to show summary information for a group. To learn more, refer to Grouping Data.
Repo rt Foote r Band	Located at the end of the report, before the <b>Page Footer</b> and <b>Bottom Margin</b> on the report's last page. This band is intended to display some final information, e.g., report totals.
Page Footer Band	Located at the bottom of every page, below the <b>Report Footer</b> and above the <b>Bottom Margin</b> . This band is intended to display page numbers or a table footer, which is continued on the following page.

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BAND	DESCRIPTION
Botto m Margi n Band	Located on the bottom margin of every page, below the <b>Page Footer</b> . This band is intended for displaying page numbers or certain supplementary information (e.g., current system time or the user name).
Sub- Band	This band provides a functional copy of the source band below which it is located. A sub-band's behavior, as well as its position within the report band hierarchy, is dictated by the source band type. Any number of sub-bands can be added to the report band of any type except for the <b>Top Margin</b> and <b>Bottom Margin</b> bands and the sub-band itself. Using sub-bands, it is possible to create multiple versions of a band within a single report and choose an appropriate version later based on a specific condition.

## **Band Positions**

The following image illustrates the relative positions of different band types, and how many times they are rendered in a report.

Top Margin	Top Margin
Report Header	Page Header
Page Header	Detail
Group Header	Detail
Detail	Detail
Detail	Detail
Group Footer	Group Footer
Group Header	Group Header
Detail	Detail
Detail	Detail
Detail	Detail
Detail	Group Footer
Detail	Report Footer
Group Footer	
Group Header	
Detail	
Page Footer	Page Footer
Bottom Margin	Bottom Margin

The **Page Header**, **Page Footer**, **Top Margin** and **Bottom Margin** bands are rendered in the report preview on every page. The **Report Header** and **Report Footer** bands are rendered in the report preview only once.

The Group Header and Group Footer bands are rendered for every group of records in a report.

The number of times the **Detail** band is rendered in a report depends upon the number of records returned from the bound data source - one band per record.

## **Editing Bands**

The following image shows the default report layout. It is divided into three basic bands (**Top Margin**, **Detail** and **Bottom Margin** bands) that provide space for placing different report controls on them.

		1 alalah	1.10.5	ىلىسى	) deletet	10.5	الس	 1.5	ئلىس	2 	2.5	ا	 3.5	 	4.5 1111	 	5.5   .   .   .	با ال	1.1.1.	6.5 	17	
. <u>e</u>	0																					
opMarg	0.5																					
-	-							 						 		 						
Detail	0.5																					
Margin	0																					
Bottom	0.5																					

To add a new band of a particular type, use the context menu of the report or bands. Right-click a report on the design surface or in the Report Explorer, and select a band to be inserted in the report.



For more information on adding and removing bands in the Report Designer, refer to the Create and Delete Report Elements document. To learn how to change the band layout, see Adjust the Layout of Report Elements.

## **Interface Elements**

The topics in this section describe the main elements that make up the user interface of the Report Designer. This section consists of the following topics.

- Toolbar
- Control
- **Toolbox Field** •
- List Report
- Explorer
- Group and Sort
- Panel Properties Panel Design
- Surface Script
- Editor
- Query Builder

## Toolbar

The Toolbar allows you to easily perform various report commands, which are divided into the following sections.

- Report
- Commands Edit
- Commands Font
- Commands
- Arrange
- Commands Editors Commands

🗋 🗁 💾 😫 🗙 🔏 🗂 🛍 🖘 衿	Tahoma 🗸 🗸 Ay - 🔊 -	∰ L & 3	黄宫顶图 咖顿顿顿		🗋 🗟 岁
New Open Save Save Delete Cut Copy Paste Undo Redo	B I U S ≣ Ξ Ξ ≡ 🗖 🚍 🗖	<u>lo</u> 00 <u>ol</u>	을 왕 왕 후 팬 회	Bring to Send to Front • Back •	Watermark Page Scripts Setup
Report Edit	Font	Alignment	Layout	Arrange	Editors

## **Report Commands**

Use these commands to save and load report layouts.

ICON	COMMAN D	DESCRIPTION
2	New	Creates a new report using the Report Wizard.
	Open	Invokes the <b>Open</b> dialog that allows you to select the report layout to be opened.
	Save	Saves the current report to the default file.
H	Save as	Invokes the <b>Save</b> dialog that allows you to select a file to which the current report layout should be saved.

### **Edit Commands**

Use the following commands to delete the selected report elements, place them to the clipboard, paste them onto report bands and cancel previous actions.

ICON	COMMAND	DESCRIPTION
×	Delete	Deletes the selected report elements.
X	Cut	Cuts the selected report elements to the clipboard.
A	Сору	Copies the selected report elements to the clipboard.
	Paste	Pastes the contents of the clipboard to the selected report band.
	Undo	Cancels the last change made to the report.
R	Redo	Reverses the results of the last undo action.

## Font Commands

Use these commands to easily customize font, color, formatting and alignment settings.

ICON	COMMAND(S)	DESCRIPTION
Tahoma	Font Name	Specifies the font name of the selected elements.
18 🔽	Font Size	Specifies the font size of the selected elements.
Ay -	Foreground Color	Specifies the foreground color of the selected elements.
<b>)</b> -	Background Color	Specifies the background color of the selected elements.
в I <u>U</u> <del>S</del>	Bold, Italic, Underline, Strikeout	Applies/removes bold formatting, italic formatting, underlining and strike through to/from the selected elements.
E E <mark>3</mark> =	Left, Center, Right, Justify	Specifies the horizontal text alignment of the selected elements.
	Top, Center, Bottom	Specifies the vertical text alignment of the selected elements.

## Arrange Commands

These commands allow you to change the order of stacked elements.

ICON	COMMAN D	DESCRIPTION
Ļ	Bring to Front	Brings the selected elements to the front of a group of stacked elements or moves the selected elements one step closer to the front.
Ļ	Send to Back	Sends the selected elements to the back of a group of stacked elements or moves the selected elements one step toward the back.

## **Editors Commands**

Use the following commands to invoke the Watermak dialog, Page Setup dialog or Script Editor.

ICON	COMMAN D	DESCRIPTION
	Watermar k	Invokes the Watermark dialog that allows you to add a text watermark to a report or turn a picture into a report's background.
J.	Page Setup	Invokes the Page Setup dialog that allows you to modify the paper size, orientation and margins.
	Scripts	Shows or hides the Script Editor that allows you to write code for specific event handlers.

## **Control Toolbox**

The **Control Toolbox** contains all available report controls and allows end-users to add them to the report being edited. Report controls can display both static and dynamic information of different kinds (simple or formatted text, pictures, tables, etc.) and adjust a report layout (organize controls within panels, insert page brakes, etc.)

The available report controls can be divided into the following categories.

- General
- Content
- ExtendedData
- Report Layout Document
- **Statistics**

To learn how to add a control from the **Toolbox** to a report, see the Adding Controls to a Report section.

### **General Content**

The following controls are most commonly used to display data in a report.

ICON	CONTROL NAME
Α	Label
	Check Box
	Rich Text
	Picture Box
	Table
ab	Character Comb
	Bar Code
88	Zip Code
	Gauge

## **Extended Data**

The following controls are connected to data individually, without accessing a report's data source.

ICON CONTROL NAME	
-------------------	--

ICON	CONTROL NAME
	Chart
Σ	Pivot Grid
~~~	Sparkline

Report Layout

The following controls allow you to draw shapes in a report and customize the report layout.

ICON	CONTROL NAME
~	Line
	Shape
	Page Break
	Cross-Band Line
	Cross-Band Box
	Panel
	Subreport

Document Statistics

The dynamic content of the following controls is not obtained from a data source.

ICON	CONTROL NAME		
	Page Info		
	Table Of Contents		

Adding Controls to a Report

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

• Double-click an item in the Toolbox to create the corresponding control at the default position.

• Drag-and-drop an item from the Toolbox onto the required position within a report.



• Select an item in the Toolbox, and then indicate the bounding rectangle by holding down the left mouse button.



If you need to perform selection, re-arranging or resizing operations, select the **Pointer** item (**b**).

Field List

The **Field List** panel is intended to display the structure of the data source to which a report is currently bound. This panel can also be used to create new bound report controls, manage calculated fields and parameters.



This document consists of the following sections.

- Creating Bound Report
- Elements Managing
- Calculated Fields
- Managing Report
 Parameters

Creating Bound Report Elements

After binding a report to data, the Field List shows the structure of the report's data source assigned to the

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Data Source property. Then, the Field List can be used to add new bound controls.

To add a new bound report element, click a desired field item in the Field List, and then drag-and-drop it onto the report band. This creates an appropriate control bound to the selected data field.



Managing Calculated Fields

The Field List allows you to create calculated fields by building expressions based on the values of data fields, report parameter values, etc.

To add a calculated field to a report, right-click any item inside the data member node, and in the invoked context menu, select

Add Calculated Field.



To edit settings of the created calculated field, select them and go to the Properties Panel. You can also rightclick the calculated field and use commands available in the context menu.



Manging Report Parameters

The Field List shows existing report parameters and allows you to add new ones to the report.

To create a parameter, right click the **Parameters** node or any of its sub-nodes, and in the context menu, select **Add Parameter**.



You can customize report parameters using the Properties Panel or commands available in the context menu in the same way as you customize calculated fields.

Report Explorer

The **Report Explorer** reflects a report's structure in a tree-like form providing easy access to report elements. Additionally, the Report Explorer contains the **Components** node, which displays non-visual report components such as data objects created when binding a report to a data source. You can also use the Report Explorer to manage styles and formatting rules available for a report.



To access and edit settings of a report element or component, select it in the Report Explorer and switch to the Properties Panel. You can also right-click elements and components to invoke their context menu.



In the Report Explorer, data-aware controls are marked with a special database icon.



You can manage styles and formatting rules using commands available in context menus. To invoke a context menu, right-click the corresponding root node or its sub-node.

Group and Sort Panel

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

Group And Sort				_ [-						
ſ	Ad	ld a	Gro	oup 🝷 💁 Add a Sort	- 1	Remove	🔂 N	love Up 😗 Move	Down		4
	Fie	ld				Sort Order		Show Header	Show Footer		
	4	Pro	odu	cts.CategoryID		Ascending		\checkmark	\checkmark		\sim
1			Pro	oducts.ProductName	¥	Ascending					
				Products.UnitPrice		Ascending					
											\sim

O Not e

If a report is not bound to a data source, the Group and Sort Panel is inactive.

To create a new sorting or grouping criterion, click the Add a Sort or Add a Group buttons, respectively. Then, select the desired data source field in the invoked drop-down list.



After adding the grouping criterion, the Group Header band is automatically created. You can manually specify whether to display the corresponding Group Header and Group Footer using the **Show Header** and **Show Footer** check boxes.

You can choose the sorting mode (ascending or descending) or disable sorting in the **Sort Order** dropdown list.

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The **Group and Sort Panel** also allows you to change the precedence of multiple grouping and sorting criteria using the **Move Up** and **Move Down** buttons.

To remove a grouping or sorting criterion, select it and click the **Remove** button.

Properties Panel

The **Properties** panel allows you to access and customize settings of a report and its elements.

Properties	-	
Report1 Report		~
🗄 🗮 Search		
▲ Appearance		^
Background Color	#00FFFFFF	
Border Color	Black	
Border Dash Style	Solid	
Border Width	1	
Borders	None	
▶ Font	Times New Roman, 9.75pt	
Foreground Color	Black	
Formatting Rule Sheet	(Collection)	~

This document describes different aspects of using the Properties panel and consists of the following sections.

- Selecting a Report
- Element Display
- Modes
- Changing Property
 Values Searching for
- Properties

Selecting a Report Element

To select an element and show its properties in the Properties panel, do one of the following.

Select a required element in the drop-down list at the top of the Properties panel.

Properties	_ 1	-
Report1 Report	1	2
BottomMargin Bottom Mar	rgin	3
Detail Detail		Ļ
label2 Label		
label1 Label		
Report1 Report		
TopMargin Top Margin		
Borders	Ivone	
Font	Times New Roman, 9.75pt	\sim

- Click a required element in the Report Design
- Surface. Select a required element in the
- Report Explorer.

Display Modes

The Properties panel can display element properties in alphabetical flat order or combine them into categories depending on their purposes. To switch between these display modes, use the dedicated buttons.

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Properties		-
Report1 Report		~
E E Search		
Appearance		^
Background Color	#00FFFFFF	
Border Color	Black	
Border Dash Style	Solid	

Changing Property Values

In the Properties panel, each row consists of two cells: the header cell showing the property caption and the value cell. To set a property value, locate the property and specify its value using the corresponding cell editor. Specific properties contain nested properties, which can be accessed by clicking the expand button for the property captions.

Properties		
Report1 Report		~
🗄 🔳 Search		
 Margins 	100, 55, 100, 100	^
Bottom	100	
Left	55	_
Right	100	
Тор	100	~

Searching for Properties

The Properties panel includes the search box that allows you to search for a required property. When you type within the search box, the Properties panel automatically creates a search criteria based on the entered text and filters the list of available properties.

Properties	_ □
Report1 Report	~
B- E Color	8
Background Color	#00FFFFFF ^
Border Color	Black
Foreground Color	Black
Page Color	White
▲ Watermark	(none)
Foreground Color	Red
	~

If you type two substrings separated by the space character, these substrings are considered as individual conditions combined by the **OR** logical operator. To find properties that contain both substrings (i.e., to use the **AND** logical operator), type "+" before the second substring. Similarly, type "-" to exclude properties that contain a specific substring. To search for a property that contains a space character, enclose the entered string in quotation marks. You can also combine several logical operators and quotation marks.

Design Surface

2| . . . 15| 1| 05| 0 | 0 | . 1 0 . 55| 0 ReportHeader1 topMarginBand1 Suppliers Current Date: Friday, 05 February 2016 Θ Company [CompanyName] 0 Country: Contact Name: [ContactName] [Country] Region: Contact Title: [ContactTitle] [Region] City: 0 Phone: [Phone] [City] 0 Postal Code: Fax: [Fax] [PostalCode] 0 Home Page: [HomePage] 0 Address: [Address] Detail

The **Design Surface** displays a report that is currently being edited in the Report Designer.

The Design Surface includes the following principal elements.

- Rulers
- Band
- Captions
- Context
- Menus In-
- place Editors

Rulers

The horizontal and vertical rulers display tickmarks in the measurement units specified for a report. Click an element to evaluate its size and location using the rulers.

The vertical ruler also allows you to change the band height by moving its top and bottom sliders.



Band Captions

In the Report Designer, each report band carries a caption, tab title and color, which depend on the band kind. These captions are not printed in the resulting report document and are only visible at design time.



To access band properties, select the band by clicking its caption, and then switch to the Properties Panel.

Context Menus

The context menu provides quick access to the most commonly used actions that depend on the element for which it is invoked. For example, it allows you to insert new bands, cut/copy/paste/delete report controls, etc. For certain report controls, the context menu also includes the **Edit...** option, which invokes the dialog with complex settings (such as data binding settings, formatting, etc.) To invoke this menu, right-click a report element or the report editing surface.



In-place Editors

An in-place editor allows you to edit the content of a text-oriented control (Bar Code, Check Box, Label, Table Cell or Zip Code) by double-clicking it.



To learn how to use the in-place editor to supply dynamic data to a control, see Using Mail Merge.

Script Editor

The **Script Editor** allows you to write code for specific event handlers in the **Report Designer** to adjust the behavior of report controls, bands or the report itself.

		Validat
<pre>1 double totalUnits = 0;</pre>		
2 double pack = 15; 3		
<pre>4 private void label1_SummaryReset(object sender, System.EventArgs e) { 5 totalUnits = 0;</pre>		
6 } 7		
<pre>8 private void label1_SummaryRowChanged(object sender, System.EventArgs e) { 9 totalUnits += Convert.ToDouble(GetCurrentColumnValue("UnitsOnOrder"));</pre>		
<pre>8 private void label1_SummaryRowChanged(object sender, System.EventArgs e) { 9 totalUnits += Convert.ToDouble(GetCurrentColumnValue("UnitsOnOrder")); 10 }</pre>		
<pre>8 private void label1_SummaryRowChanged(object sender, System.EventArgs e) { 9 totalUnits += Convert.ToDouble(GetCurrentColumnValue("UnitsOnOrder")); 10 } 11</pre>		
<pre>8 private void label1_SummaryRowChanged(object sender, System.EventArgs e) { 9 totalUnits += Convert.ToDouble(GetCurrentColumnValue("UnitsOnOrder")); 10 } 11 12 private void label1_SummaryGetResult(object sender, DevExpress.XtraReports.UI.SummaryCetResult(object sender, DevExpress.XtraReports.UI.StraReports.UI</pre>	aryGetResultEvent4	Args e) {
<pre>8 private void label1_SummaryRowChanged(object sender, System.EventArgs e) { 9 totalUnits += Convert.ToDouble(GetCurrentColumnValue("UnitsOnOrder")); 10 } 11 12 private void label1_SummaryGetResult(object sender, DevExpress.XtraReports.UI.Summa 13 e.Result = Math.Ceiling(totalUnits / pack);</pre>	aryGetResultEventA	Args e) {
<pre>8 private void label1_SummaryRowChanged(object sender, System.EventArgs e) { 9 totalUnits += Convert.ToDouble(GetCurrentColumnValue("UnitsOnOrder")); 10 } 11 12 private void label1_SummaryGetResult(object sender, DevExpress.XtraReports.UI.Summa 13 e.Result = Math.Ceiling(totalUnits / pack); 14 e.Handled = true;</pre>	aryGetResultEventA	Args e) {
<pre>8 private void label1_SummaryRowChanged(object sender, System.EventArgs e) { 9 totalUnits += Convert.ToDouble(GetCurrentColumnValue("UnitsOnOrder")); 10 } 11 12 private void label1_SummaryGetResult(object sender, DevExpress.XtraReports.UI.Summa 13 e.Result = Math.Ceiling(totalUnits / pack); 14 e.Handled = true; 15 } </pre>	aryGetResultEventA	Args e) {
<pre>8 private void label1_SummaryRowChanged(object sender, System.EventArgs e) { 9 totalUnits += Convert.ToDouble(GetCurrentColumnValue("UnitsOnOrder")); 10 } 11 12 private void label1_SummaryGetResult(object sender, DevExpress.XtraReports.UI.Summa 13 e.Result = Math.Ceiling(totalUnits / pack); 14 e.Handled = true; 15 } 16</pre>	aryGetResultEventA	Args e) {
<pre>8 private void label1_SummaryRowChanged(object sender, System.EventArgs e) { 9 totalUnits += Convert.ToDouble(GetCurrentColumnValue("UnitsOnOrder")); 10 } 11 12 private void label1_SummaryGetResult(object sender, DevExpress.XtraReports.UI.Summa 13 e.Result = Math.Ceiling(totalUnits / pack); 14 e.Handled = true; 15 } 16 Code Description </pre>	aryGetResultEventA	Args e) {

This topic describes the basics of using scripts, the Script Editor interface and shows how to use scripting in a report. The document consists of the following sections.

- Scripting
- Overview
- Maintaining Scripts

Scripting Overview

The Script Editor provides you with the capability to write and execute scripts at runtime when a report is generated. Scripting is made available to extend the standard functionality as far as may be required.

The Script Editor supports **C#** and **Visual Basic**.**NET** scripting languages. This means that the scripting language is independent from the language used to create the report. You can specify the language using the **Script Language** property. The selected scripting language should be the same for all scripts used in a report.

Properties	_ □
Report1 Report	~
B= E Search	
Script Language	CSharp 🗙 ^
Scripts	CSharp 63
Show Margin Lines i	VisualBasic
Show Print Margins	>

Maintaining Scripts

Each report element has its own set of events, which are individual for each element type. To handle an event of a report element, do one of the following.

• Select the required report element (e.g., on the Design Surface). In the Properties Panel, expand the

OneStream Software Report Designer for WPF

Scripts property and click the plus button for the event.

Properties		_ □
Report1 Report		~
8- E Search		
✓ Scripts	(Report Scripts)	^
After Print		× ±
Band's Height Changed		3
Before Print		
Data Source Demanded		
Data Source's Row Changed		~

• Click the **Scripts** button () in the Toolbar to display the Script Editor. Choose the required report element in the dedicated drop-down list at the left top of the Script Editor. Then, select one of the available events in another list at the right top.

Report1	~				¥	🖉 Valid	ate
	Fill E	npty Space		FillEmptySpace			
	Print	Progress		PrintProgress			
	Para	meters Request Before Show		ParametersRequ	vestBeforeSł	how	
	Para	meters Changed		ParametersRequ	vestValueCh	nanged	
	Para	neters Submitted		ParametersRequ	uestSubmit		
	Data	Source Demanded		DataSourceDen	nanded		
	Band	's Height Changed		BandHeightCha	nged		
		Data Source's Row Changed		DataSourceRowChanged			
	After	Print		AfterPrint			
	Befo	re Print		BeforePrint		-	
Code Description					Line	Colu	
							\sim
							\sim

After the event is specified, a code template is automatically generated in the current scripting language and added in the Script Editor.

Report1	✓ OnAfterPrint	Validate
1 private 2 3 } 4	<pre>void Report1_AfterPrint(object sender, System.</pre>	.EventArgs e) {

To check for errors in the report's script, click the **Validate** button. The validation result is displayed in the errors panel at the bottom of the Script Editor. Double-click the error item in the panel's list to go to the corresponding line of code. If all scripts are valid, the errors panel is empty.

1002	; expected	2	11	^
1002		_		
1002	; expected	7	10	

Query Builder

The Query Builder provides a visual interface for constructing SQL queries and enables you to solve a variety of tasks.

		-									L	_ Allow Edit	20
Categories		^	Na	ame		Join Information			select	[Categori	es].[Cate	goryID],	
Customers				Categor	ries			^		[Products].[Produc	tName],	911
EmployeeCustomers			2	Product	s	Inner join on [Cate	gories].[sum([Prod	ucts].[Un	itPrice])	a
Employees				□ * (A	ll Columns)				from	a ([Categor	ies] [Cat	egories]	1
Order Details				Proc	ductID				inne	er join [Pr	oducts] [Products]	-
Orders				V Proc	ductName	3			group	by [Catego	ries].[Ca	tegoryID],	,
Products				Sup	plierID	Can join [Suppliers]].[Sup	Ð	1555,40%317630	[Categori	es].[Cate	goryName],	,
Shippers				Cate	egoryID	Can join [Categorie	es].[Ca	Ð	order	by [Catego	ries].[Ca	tegoryID]	ē
Suppliers					IntityPerUnit	, , ,							
CategoryProducts													
		~		Unit	Price	2							
Columns of Categories	1 2	^		Unit	tPrice 2 tsInStock 2	2 2 2 2		-					
Columns of Categories CategoryID	Int32	^		Unit	tPrice 2 tsInStock 2 Table	Alias	Output	↓ Sortir	ng Type	Sort Order	Group By	Aggregate	T
Columns of Categories CategoryID CategoryName	Int32 String(15)	~		Unit Unit Column CategoryID	tPrice 2 tsInStock 2 Table Categories	Alias	Output	↓ Sortir Ascer	ng Type nding	Sort Order	Group By	Aggregate	I
Columns of Categories CategoryID CategoryName Description	Int32 String(15) String	~	•	Column CategoryID CategoryNa	tPrice 2 tsInStock 2 Table Categories me Categories	Alias	Output	↓ Sortir Ascer	ng Type nding	Sort Order	Group By	Aggregate	
Columns of Categories CategoryID CategoryName Description Picture	Int32 String(15) String ByteArray	~	•	Column CategoryID CategoryNar ProductNarr	tPrice 2 tsInStock 2 Table Categories me Categories he Products	Alias	Output	V Sortir Ascer	ng Type nding	Sort Order 1	Group By	Aggregate	
Columns of Categories CategoryID CategoryName Description Picture Icon_17	Int32 String(15) String ByteArray ByteArray	~	•	Unit Column CategoryID CategoryNar ProductNarr UnitPrice	tprice 2 tsInStock 2 Table Categories me Categories ne Products Products	Alias Sum UnitPrice	Output	Sortir Ascer	ng Type Inding	Sort Order 1	Group By	Aggregate	

O Not e

The Query Builder is not available for object, Entity Framework and

Excel data sources. The document consists of the following sections.

- Run the Query
- Builder Select •
- Tables
- Join Tables
- Edit
- **Parameters** •
- Filter Data • Shape Data
- Enable Custom SQL •
- Editing Preview Results •

Run the Query Builder

You can invoke the Query Builder from the query customization page of the Report Wizard when creating a new data-bound report or when binding an existing one to a database. To do this, select the Query item and click the Run Query Builder button.

Report W	izard ×
Create a query or select a stored procedure.	
Query	
○ Stored Procedure	
SQL string:	
Run Query Builder	Previous Next Finish

You can also use the Query Builder to add queries to an existing SQL data source, as well as to edit existing queries. To do this, right-click the data source in the Report Explorer and select **Manage Queries** in the context menu.



In the invoked **Manage Queries** dialog, click **Add** to add a new query. To edit an existing query, click the ellipsis button.

Name						
T G I I I	2					
Produ	ucts					^
		_			_	
Ad	d	Remove		OK	Can	cel

Finally, click the Run Query Builder button in the invoked Data Source Wizard.

Select Tables

To add a specific data table or view to a query, drag the corresponding item from the list of available tables and drop it onto the list of data tables to be used.

			Q	uery Build	der					×
Categories		^ Name			Join Ir	nformation		se	lect 1	
Customers	20x +							\sim		
EmployeeCustomers										
Employees	~~~ ~~+									
Crder Details		····[+]								
Orders										
Products	_									
Shippers										
Suppliers										
CategoryProducts		<i>•</i>								
Columns of Categorie	s ^									
CategoryID	Int32 ^							~		
CategoryName	String(15)	Caluma	Table	Alian	Outrust	Casting Trees	Sent Order	Crew	D. A	
Description	String	Column	Table	Allas	Output	sorting Type	Soft Order	Group	by Aggregate	=
Picture	ByteArray									
lcon_17	ByteArray 🗸									
										\sim
Davis Davis	Files File	D								
Preview Results	Filter Edit	t Parameters						C	Cano	:ei

Enable check boxes for the table fields that you want to include in the query result set.

Name		Join Information	
🔺 🔳 Categ	gories		~
*	(All Columns)		
C	ategoryID		
V C	ategoryName		
_ hab	escription		
P	icture		
	:on_17		
	:on_25		
			\sim

Each table provides the context menu, which allows you to rename the table or remove it from the query.

Name	Join Information
Categories (All Columns) CategoryID	Rename Delete
CategoryName Description	L3-
Picture Icon_17 Loss 25	
Icon_25	v

To search for a specific table or view, click the list of available tables on the left and start typing the search name.

	^
Customers	
EmployeeCustomers	
Employees	
Products	~

Join Tables

You can join multiple tables within the same query. The Query Builder automatically highlights tables related to any of the previously added tables. Drag-and-drop a subordinate table in the same way as a principal table to include it in a query and automatically create an inner join relation based on a key column.

Name		Join Information	
4	Categories	^	•
	All Columns)		
	✓ CategoryID		
	✓ CategoryName		
	Description		
	Picture		
	lcon_17		
	lcon_25		
4 🗆	Products	Inner join on [Categories]	
	All Columns)		
	ProductID		
	ProductName		
	SupplierID	Can join [Suppliers].[Sup 🚯	
	CategoryID	Can join [Categories].[C 🚱 🗸	,

Another way to join tables is to click the 💿 button in a row corresponding to a key column.

To customize the relationship, click the corresponding ellipsis button. Use the **Join Editor** to select the join type (**Left Outer** or

Inner), applied logical operator (Equals to, Is less than, etc.) and column key fields.

Name		Join Information
4	Categories	^
	* (All Columns)	
	✓ CategoryID	
	CategoryName	
	Description	
	Picture	
	lcon_17	
	lcon_25	
4	Products	Inner join on [Categories]
	(All Columns)	₩ <u></u>
		Join Editor
	Join type: Inne	r join
	Products] .	[CategoryID] = [Categories] . [CategoryID]
	0	
		OK Cancel

A left outer join returns all the values from an inner join along with all values in the "left" table that do not match to the "right" table, including rows with NULL (empty) values in the key field.

If tables do not have a relationship at the database level, you can manually join tables. In this case, when you drag-and-drop the required table onto the list of tables to be used, the **Join Editor** is automatically invoked allowing you to construct a custom **join** relationship.

After executing the query, it will return a "flat" table composed of data records selected based on the specified join options.

O Not e

Although joining different tables within a single query may be required in some scenarios, creating hierarchical data sources generally results in better performance (in general, master-detail reports are generated faster than similar-looking reports created by grouping "flat" data sources).

Edit Parameters

Click the **Edit Parameters** button to invoke the **Query Parameters** dialog, which allows you to add and remove query parameters as well as specify parameter settings.

		Quer	y Pa	arameters		×
	Name	Туре		Expression	Value	
	MaxPrice	Number (decimal)	\sim		50	^
I	MinPrice	Number (decimal)	~	~	10	✓ ··· +
						>
	Preview Add	Remove			ОК	Cancel

For each query parameter, the following properties are available.

- Name specifies the name used to refer a parameter.
- Type specifies the data type of the parameter's value.

- Expression determines whether the actual parameter value is static or generated dynamically.
- Value specifies the actual value of a query parameter. If the Expression option is enabled, the actual parameter value is produced dynamically by calculating an associated expression, which is particularly useful when you need to map the query parameter value to the value of a report parameter.

The created parameters will be then available on the Configure Query

Parameters wizard page. For general information on query parameters, see

Query Parameters.

Filter Data

To specify filter criteria, click the **Filter...** button in the Query Builder. This invokes the **Filter Editor**, which provides the following capabilities.

Filter Editor	×
Filter Group Filter	
And Products].[UnitPrice] Is between 1 And 99 O	
[Categories].[CategoryID] Equals <select a="" paramete<="" td=""><td>r≥ 8 8</td></select>	r≥ 8 8
	Add Query Parameter
	Bind To VS +
Select only 0 records starting with index 0	
Select only distinct values	
	OK Cancel

Filter Tab

The editor contains the **Filter** tab allowing you to specify filter conditions for resulting data. Filter criteria can be assigned query parameters or bound to report parameters.

Group Filter Tab

The **Group Filter** tab allows you to specify filter conditions for grouped and aggregated data. If data is not grouped, the second tab is disabled.

Other Options

Using this editor, you can limit the number of resulting data rows. If data is sorted, you can specify how many rows to skip before retrieving the specified number of rows.

O Not e

Depending on the selected data provider, it can be impossible to take into account the skip setting in the provider-specific SQL string.

Another option enables you to include only distinct values into the resulting set.

Shape Data

The Query Builder displays the column list under the data source editor, which provides various shaping options.

	Column	Table	Alias	Output	Sorting Type	Sort Order	Group By	Aggregate	
Þ	CategoryID	Categories			Ascending	1			\sim
	CategoryName	Categories		\checkmark			\checkmark		
	ProductName	Products		\checkmark			\checkmark		
	UnitsInStock	Products	Sum_UnitsInStock	\checkmark				Sum	
	UnitsOnOrder	Products	Sum_UnitsOnOrder	\checkmark				Sum	
									\sim

The following options are available.

• Column

Specifies the selected column.

You can choose a required column in the drop-down list or create a column expression by clicking the ellipsis button for the corresponding column.

		Expression Editor ×
	Products.UnitsInStock * Products.UnitPric	e
Column		
CategoryID		
ProductName		
🖌 UnitsInStock 🛛 🖓 🙀	Iumn Products.UnitsInStock * Products.UnitPrice Iumn + - × ÷ % (···) = ≠ < < > > (•) (•) (•) oductName + - × ÷ % (···) = ≠ < < > > (•) (•) (•) itsInStock Functions Operators Products.ReorderLevel Products.UnitsInStock Products.UnitPrice Products.UnitsInStock Products.UnitsInStock Parameters Products.UnitsOnOrder	
h	Functions	Products.ReorderLevel
	Operators	Products.SupplierID
	Fields	Products.UnitPrice
	Constants	Products.UnitsInStock
	Parameters	Products.UnitsOnOrder v
		OK Cancel

Table

Specifies the table containing the selected column.

This option indicates (All Tables) if an expression is specified for the corresponding column.

Alias

Specifies a custom column name (alias).

This option is available only for columns that are included in a query.

• Output

Specifies whether or not the column is included into the query's resulting set.

Sorting Type

Specifies whether to preserve the original order of data records within the column, or sort them (in ascending or descending order).

O Not e

When binding to XML files, the Query Builder does not support sorting by aggregate functions, DISTINCT and SELECT ALL statements, and custom SQL.

• Sort Order

This option becomes available after applying sorting to the data column records.

It defines the priority in which sorting is applied to multiple columns (the less this number is, the higher the priority).

For example, if column A has the sort order set to 1 and column B has it set to 2, the query will be first sorted by column A

and then by the column **B**.

Changing this setting for one column automatically updates the sort order of other columns to avoid a conflict of priorities.

Group By

Specifies whether or not the query's result set should be grouped by this column.

Aggregate

Specifies whether or not the column's data records should be

aggregated. The following aggregate functions are

supported.

- o Coun
- t
- ° . Max
- ° Min o Avg
- Sum Count
- Distinct Avg
- ° Distinct
- Sum Distinct

Applying any of these functions to a column will discard individual data records from the query result set, which will only include the aggregate function result.

O Not e

You should apply aggregation/grouping to either all columns or to none of them.

Enable Custom SQL Editing

If custom SQL editing is enabled by your software provider, the Query Builder contains the Allow Edit SQL check box. Selecting this option disables the visual features of the Query Builder and allows users to specify the custom SQL string manually.

			Query Builder
			Allow Edit SQ
Categories		^	10
Customers			select [Categories].[CategoryID].
EmployeeCustomers			[Categories].[CategoryName],
Employees			[Products].[ProductName],
Order Details			sum([Products],[UnitPrice]) as [Sum_UnitPrice],
		~	sum([Products].[UnitsInStock]) as [Sum_UnitsInStock]
Columns of Categorie	s	^	from ([Categories] [Categories] inner join [Products] [Products]
CategoryID	Int32	^	on ([Products].[CategoryID] = [Categories].[CategoryID]))
CategoryName	String(15)		group by [Categories].[CategoryID],
Description	String		[Categories].[CategoryName], [Products] [ProductName]
Picture ByteArray		~	Trougesplitourenanel
Picture	BvteArrav	~	
Preview Results	Filter	dit Pa	arameters OK Cancel

Preview Results

You can preview the result of the query execution in the form of a tabular data sample by clicking the **Preview Results** button. This opens the **Data Preview** window displaying the query result set limited by the first 1000 data records.

Data Preview (First 1000 Rows Displayed)								
Product ID A	roduct ID 🔺 Product Name Category Name Quantity Per Unit Unit F							
1	Chai	Beverages	10 boxes x 20 bags	18	39	^		
2	Chang	Beverages	24 - 12 oz bottles	19	17			
3	Aniseed Syrup	Condiments	12 - 550 ml bottles	10	13			
4	Chef Anton's Cajun	Condiments	48 - 6 oz jars	22	53			
5	Chef Anton's Gum	Condiments	36 boxes	21.35	0			
6	Grandma's Boysen	Condiments	12 - 8 oz jars	25	120			
7	Uncle Bob's Organi	Produce	12 - 1 lb pkgs.	30	15	\sim		
<					>			
					OK			

Report Wizard

The Report Wizard is a powerful tool that allows you to easily create reports based on built-in templates. It is automatically invoked when adding a new report in the Report Designer.

	Report Wizard	_ ×						
Select the report type you wish to create.								
Empty report	Databound Report	Label Report						

The Report Wizard provides three different ways to setup your report.

• Empty Report

Choose this option to create a new blank report that is not bound to data and doesn't contain

any report controls. Data-bound Report

This option allows you to easily create a report bound to a desired data source (database, Entity Framework, object data source or excel data source) and generate its layout from scratch. While setting up the report, you can group and sort data, add totals, apply one of the predefined report style, etc.

Label Report

Select this report type if you need to print out labels. In the Label Report Wizard, choose a required paper supplier and label type, and the report will be adjusted automatically. After completing the wizard, you get an empty report that clearly indicates label boundaries and properly positions labels within paper sheets.

Empty Report

The **Report Wizard** allows you to create reports of three kinds: **empty reports**, data-bound reports and label reports. To create a new blank report, select **Empty Report** and click **Finish**.

	Report Wizard – ×							
Select the report type you wish to create.								
Empty report	Databound Report	Label Report						

The created report is not bound to a data source and doesn't contain any report controls. The following image demonstrates the default layout of this report.



You can then bind the report to a required data source and construct the report layout.

Data-bound Report

The Report Wizard allows you to create three kinds of reports : empty reports, data-bound reports and label reports. To create a data-bound report and generate its layout, select Databound Report.

	Report Wizard	_ ×					
Select the report type you wish to create.							
Empty report	Databound Report	Label Report					

Click **Next** to proceed to the next wizard page: Select the Data Source Type.

After completing the Data-bound Report Wizard, you get a tabular banded report. Depending on how many wizard steps you complete, you can apply data grouping, display totals, select one of the predefined style sheets, etc.

Connect to a Database

The topics in this section describe the steps required to connect a report to a database using the

Report Wizard. This task includes the following steps.

- Select a Data
- Connection Specify a
- Connection String Save
- the Connection String
- Customize the Query
- Configure Query Parameters

Select a Data Connection

On this page, you can choose whether to use one of the existing data connections or create a new one.

			Report	Wizard			- >
Do yo	u want to use	an existing da	ta connectior	?			
● No ○ Ye	o, I'd like to sp s, let me choo	becify the conr ose an existing	ection param connection fi	eters myself rom the list			
Loca	SqlServer						
nwin	d						
					Back	Next	Finish
						15	

Click **Next** to proceed to the next wizard page. If you select one of the available connections from the list, go to the Customize the Query page. Otherwise, proceed to the Specify a Connection String page to create a custom connection string and manually specify its parameters.

Specify a Connection String

On this page, define a custom connection string or select one of the supported data providers.

Select the provider type in the **Provider** drop-down list. Next, specify the connection options required for the selected provider type (e.g., authentication type and database name).

	Report Wizard – ×	
Select the dat	a provider and specify the connection properties.	
Provider:	Microsoft SQL Server	
Server name:	localhost	
Authentication type:	Windows authentication	
User name:		
Password:		
Database:	Northwind	
	Back Next Finish	

The following data source types are supported.

- Microsoft SQL Server
- Microsoft Access 97
- Microsoft Access
- 2007 Microsoft SQL
- Server CE Oracle
- **\$** Amazon
- Redshift
- Google
- BigQuery
- Teradata Firebird
- IBM
- DB2
- MySQL
- Pervasive PSQL
- PostgreSQL
- SAP Sybase
- Advantage SAP
- Sybase ASE
- SQLite
- VistaDB VistaDB5
- XML file
- ,

Click **Next** to proceed to one of the next wizard pages, depending on whether or not the created connection uses server authentication.

• Save the Connection String - if server authentication is required, this page allows you to specify whether or not to save user credentials along with the connection string.
• Customize the Query - if server authentication is not required, proceed to constructing the query.

Save the Connection String

If the data connection uses server authentication, this wizard page allows you to choose whether to save the user credentials along with the connection string.

Report Wizard	^
Save the connection string.	
The connection uses server authentication.	
Do you want to save the user name and password?	
Yes, save all required parameters	
No, skip credentials for security reasons	
Back Next S Fin	ish

Click Next to proceed to the next wizard page: Customize the Query.

Customize the Query

On this page, you can construct an SQL query to obtain data from the database or select a stored procedure.

- Construct a Query
- Select a Stored Procedure

Construct a Query

To construct an SQL query, do the following.

1. Select the Query option and click the Run Query Builder button.

Rep	ort Wizard ×
Create a query or select a stored procedure.	
Query	
O Stored Procedure	
SQL string:	
Run Query Builder	Previous Next Finish
- 0	

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

			(Query Bui	ilder					_ □	;
Categories	Name			Join Inform	ation		select	1			
Customers EmployeeCustomers EmployeeS EmployeeTerritories OrderDetails Orders Region Columns of Products Products Products	×+ ≁	×**									
ProductN String(40)						\vee					
SupplierID Int64	Column	Tabl	e Alia	is	Output	Sorti	ng Type	Sort Order	Group By	Aggregate	
CategoryID Int64 QuantityP String(20)											,

3. Enable the check box near the added table to include all of its fields in the data view.

Name	Join Information
Products	
* (All Columns)	
ProductID	
✓ ProductName	
SupplierID	Can join [Suppliers 🚯
CategoryID	Can join [Categori 🚯
QuantityPerUnit	
✓ UnitPrice	
UnitsInStock	
UnitsOnOrder	
ReorderLevel	
Discontinued	

Click OK to exit the Query Builder.

For more information on the Query Builder, refer to the Query Builder document.

Select a Stored Procedure

To use a stored procedure, choose the **Stored Procedure** option and then select the required stored procedure from the list.

Ouerv				
Stored Procedure				
Select a stored procedure:				
CustOrderHist(@CustomerID)		^		
CustOrdersDetail(@OrderID)				
CustOrdersOrders(@CustomerID)				
Employee Sales by Country(@Beginning_Da	ate, @Ending_Date)			
ProductsInPriceRange(@MinPrice, @MaxPr	ice)	t.		
Sales by Year(@Beginning_Date, @Ending_	Date)			
SalesByCategory(@CategoryName, @OrdY	ear)			
sp_alterdiagram(@diagramname, @owner_	id, @version, @definition)			
sp_creatediagram(@diagramname, @owne	r_id, @version, @definition)			
sp_dropdiagram(@diagramname, @owner_	_id)	0		

If the selected query or stored procedure contains any parameters, you will be required to define their values on the next wizard page: Configure Query Parameters.

Otherwise, clicking Next will open the next Report Wizard page: Choose Columns to Display in a Report.

Configure Query Parameters

On this wizard page, you can manage parameters that are used in queries and/or stored procedures selected on the previous wizard page, as well as specify parameter values.

	Name	Туре	Expression	Value			
	Parameter1	Number (64 bit int	~	100	^		
1	Parameter2	Date	✓	11/1/2016	~		
		String					
		Date	N				
	Number (16 bit integer)						
		Number (32 bit integer)					
		Number (64 bit integ	er)				
		Number (floating-poi	nt)				
		Number (double-pred	ision floating-point)				
		Number (decimal)					
		Boolean					
		Guid					

Click Next to proceed to the next wizard page: Choose Columns to Display in a Report.

Connect to an Entity Framework Data Source

The topics in this section describe the wizard steps required to connect a report to data provided by an Entity Framework data context.

This task includes the following steps.

- Select the Data Context
- Select the Connection
- String Specify a
- Connection String Bind
- to a Stored Procedure
- Select a Data Member

Select the Data Context

This page allows you to select a required Entity Framework data context that will provide data to a report.

On this page, select a data context from the list of existing data contexts. You can also populate this list with data contexts from a separate assembly. To do this, click **Browse...**, and in the invoked **Open** dialog, select the required assembly.

Report Wizard	× k	:
Choose a data context.		
DevExpress.DemoData.Models.CountriesEntities		1
DevExpress.DemoData.Models.NWindEntities		
	Back Next Finish	

Click Next to proceed to the next wizard page: Select the Connection String.

Select the Connection String

This page allows you to specify a connection string to be used to establish a

data connection. The following two options are available.

- No, specify a custom connection string Select this option to specify a connection string manually.
- Yes, let me choose from the list Select this option to use one of the existing connection strings from the list.

Report Wizard 🗕 🔷						
Do you want to select a connection string from the list of available settings?						
○ No, specify a custom connection string						
• Yes, let me choose from list						
LocalSqlServer						
nwind						
NorthwindEntities						
Back Next Finish						
45						

Click **Next** to proceed to the next wizard page. If you select the first option, proceed to the Specify a Connection String page. If you choose one of the available connection strings, go to the Bind to a Stored Procedure or Select a Data Member page, depending on whether or not the current Entity Framework model provides stored procedures.

Specify a Connection String

On this wizard page, specify a connection string. Additionally, this page requires you to specify whether or not to store the connection string in the application configuration file.

Report Wizard	-
Specify a connection string.	
Use default connection string	
Specify a custom connection string	
Connection string:	
Save the connection string to config file as:	
NorthwindEntities	
	Rack Next Ein
	Dack Next Fin

Click **Next** to proceed to the next wizard page. If the current Entity Framework model provides stored procedures, go to the Bind to a Stored Procedure page; otherwise, proceed to the Select a Data Member page.

Bind to a Stored Procedure

This wizard page allows you to add stored procedures to the data source and configure their parameters. Note that this page is available only if the current Entity Framework model provides at least one stored procedure.

To add a stored procedure, click **Add** and in the invoked dialog, select the required stored procedure from the list of available procedures.

Report Wizard – ×	
Manage Stored Procedures	
Name Type Expression Value Image: Select stored procedures to add Image: Sele	
ProductsInPriceRange (MinPrice, MaxPrice)	
Sales_by_Year (Beginning_Date, Ending_Date) SalesByCategory (CategoryName, OrdYear)	
OK Cancel	
Add Remove Preview Previous Next Finish	

Next, specify stored procedure parameter values, which can be either static or generated by appropriate expressions.

		Report	Wizard			- ×
Manage Stored Proc	edu	ires				
ProductsInPriceRange (Mi		Name	Туре	Expression	Value	
		MinPrice	Decimal		10	~
	F	MaxPrice	Decimal		30	
< >						~

Click **Next** to proceed to the next wizard page. If you have added more than one stored procedures on this page or if the current Entity Framework model additionally provides data tables, go to the <u>Select a Data</u> Member page. Otherwise, proceed to the <u>Choose Columns to Display in a Report page</u>.

Select a Data Member

This wizard page allows you to select one of the available data members that will provide data to your report.

Report Wizard	×
Select a data member	
Crders	
Products	
Back Next	Finish

Click Next to proceed to the next wizard page: Choose Columns to Display in a Report.

Connect to an Object Data Source

The topics in this section describe the wizard steps required to connect a report to an

object data source. This task includes the following steps.

- Select an Assembly
- Select a Data Source Type
- Select a Data Source Member
- Specify the Member Parameters Select the Data Binding Mode
- Select a Data Source Constructor
- Specify the Constructor
- Parameters

Select an Assembly

On this wizard page, select an assembly that contains the class type definition of the data source.

BindingToObjectDataSource		

To exclude irrelevant assemblies from the list, select the **Show only highlighted assemblies** check box. If you disable the check box, all available data source types will be shown.

Click Next to proceed to the next wizard page: Select a Data Source Type.

Select a Data Source Type

Report Wiza	rd ×
Select a data source type.	
A {} BindingToObjectDataSource	
🔓 Fishes	
Show only highlighted types	
	Back Next Finish
	Ьſ

On this wizard page, select a required data source type.

To exclude irrelevant classes from the list, select the **Show only highlighted types** check box. If you disable this check box, all available data source types will be shown.

Click Next to proceed to the next wizard page: Select a Data Source Member.

Select a Data Source Member

This wizard page allows you to select whether you want bind to the entire object or to its public member (method or property).

Report Wizard	_ ×
Select a data source member (if required).	
 Do not select a member, bind to the entire object. Select a member to bind. 	
GetRange(int start, int end) : List <fish></fish>	
Show only highlighted members	
Back Next 📐	Finish

Select the **Show only highlighted members** check box to exclude irrelevant members from the list. Otherwise, all available members will be shown.

Click **Next** to proceed to the next wizard page. If you select binding to the entire object, proceed to the Select the Data Binding Mode page. If you choose one of the available public members, go to the Specify the Member Parameters page.

Specify the Member Parameters

On this wizard page, you can specify the member parameters.

To specify the member parameter's value, use the **Value** column. Enable the check box in the **Expression** column to make it possible to specify the parameter expression using the **Expression Editor**. In this case, you can pass an existing report parameter to the member or create a new one using the in-place editor.

	Report Wizard		_ ×	
Specify the method	parameters.			
Name	Туре	Expression	Value	
start	Number (32 bit integer)		1	\sim
end	Number (32 bit integer)		5	
		Previou	s Next Next Finish]

Click Next to proceed to the next wizard page: Select the Data Binding Mode.

Select the Data Binding Mode

On this wizard page, you can choose one of the following data binding modes.

- Retrieve the data source schema Select this option to retrieve only the data source schema from the specified object and edit the report layout without having access to the actual underlying data.
- Retrieve the actual data Select this option to automatically create an instance of the data source type and obtain its actual data.

Report Wizard – ×
Select the data binding mode.
Retrieve the data source schema Only the data source schema is retrieved from the specified object, without feeding the actual data to the report until it is published.
To manually retrieve the actual data, create a data source object's instance in code and assign it to the ObjectDataSource.DataSource property or directly to the DataSource property of the report.
 Retrieve the actual data The object data source automatically creates an instance of the specified type by using one of the available constructors. If only one constructor is available, this constructor will be used.
Back Next Next Finish

Click **Next** to proceed to the next wizard once you select the data binding mode.

- Choose Columns to Display in a Report if you select the first option, go to choosing columns to display
- in a report. Select a Data Source Constructor this page allows you to choose a required constructor to create an instance of the data source.

Select a Data Source Constructor

On this wizard page, select a data source constructor to be used to create an instance of the data source.

Report Wizard	-	×
Select a data source constructor.		
(string filePath)		
Show only highlighted constructors		
	Back Next Sin	ish

Enable the **Show only highlighted constructors** check box to exclude irrelevant constructors from the list. Otherwise, all available constructors will be shown.

Click Next to proceed to the next wizard page: Specify the Constructor Parameters.

Specify the Constructor Parameters

On this wizard page, you can specify the constructor parameters.

To specify the constructor parameter's value, use the **Value** column. Enable the check box in the **Expression** column to make it possible to specify the parameter expression using the **Expression Editor**. In this case, you can pass an existing report parameter to the constructor or create a new one using the in-place editor.

		Report Wiza	rd	-	×
	Specify the construc	tor parameters.			
	Name	Туре	Expression	Value	
1	filePath	String		D:/Fishes.txt	\sim
					\sim
			Back	Next Finish	
			both	3	

Click Next to proceed to the next wizard page: Choose Columns to Display in a Report.

Connect to an Excel Data Source

The topics in this section describe the wizard steps required to connect a report to an

Excel data source. This task includes the following steps.

- Select an Excel Workbook or
- CSV file Specify Import
- Settings
- Select a Worksheet, Table or Named
- Region Choose columns

Select an Excel Workbook or CSV file

On this wizard page, select a required Microsoft Excel workbook (the XLS, XLSX and XLSM formats are supported) or CSV file. To do this, click the ellipsis button and locate the source file, or enter the full path to this file.

	Report Wizard	×
Select an Excel workbook or CSV file.		
D:\Northwind.xlsx		
	Back Next Finis	sh

Click Next to proceed to the next wizard page: Specify Import Settings.

Specify Import Settings

On this wizard page, you can specify required import settings. This page provides access to different settings depending on whether you have selected an Excel Workbook or CSV file.

Import Settings for an Excel Workbook

The following settings are available if an Excel workbook has been selected.

Report Wizard	- ×
Specify import settings.	
✓ Use values of the first row as field names	
Skip empty rows	
Skip hidden rows	
Skip hidden columns	
Back Next	Finish

- Use values of the first rows as field names Specifies whether values of the first row should be imported as field names. If this option is disabled, values of the first row will be imported as data and field names will be generated automatically.
- Skip empty rows Specifies whether or not to include empty rows to the resulting data source.
- Skip hidden rows Specifies whether or not to include hidden rows to the resulting data source.
- Skip hidden columns Specifies whether or not to include hidden columns to the resulting data source.

Click Next to proceed to the next wizard page: Select a Worksheet, Table or Named Region.

Import Settings for a CSV file

The following settings are available if a CSV file has been selected.

Specify import settings. Image: Skip empty rows I		Report Wizard –
✓ Use values of the first row as field names ✓ Skip empty rows ✓ Trim blanks Encoding: Unicode (UTF-8) ✓ Detect automatically Newline type: CRLF ✓ Detect automatically Value separator: , ✓ Detect automatically Culture: Invariant Language (✓ Text qualifier: "	pecify import setti	ings.
✓ Skip empty rows ✓ Trim blanks Encoding: Unicode (UTF-8) ✓ Detect automatically Newline type: CRLF ✓ Detect automatically Value separator: , ✓ Detect automatically Culture: Invariant Language (✓ Text qualifier: "	✓ Use values of	the first row as field names
✓ Trim blanks Encoding: Unicode (UTF-8) ✓ Detect automatically Newline type: CRLF ✓ Detect automatically Value separator: , ✓ Detect automatically Culture: Invariant Language (✓ Text qualifier: "	🗹 Skip empty ro	0W5
Encoding: Unicode (UTF-8) Detect automatically Newline type: CRLF Detect automatically Value separator: , Detect automatically Culture: Invariant Language () Text qualifier: "	✓ Trim blanks	
Encoding: Unicode (UTF-8) Image: CRLF Image: CRLF <td></td> <td></td>		
Newline type: CRLF Image: CRLF Value separator: Image: Culture: Image: Culture: Text qualifier: "	Encoding:	Unicode (UTF-8) 🔽 🗹 Detect automatically
Value separator: , Image: Culture: Invariant Language (Text qualifier: "	Newline type:	CRLF 🛛 🗹 Detect automatically
Culture: Invariant Language (💌 Text qualifier: "	Value separator:	, 🖂 🗹 Detect automatically
Text qualifier: "	Culture:	Invariant Language (🔽
	Text qualifier:	и
		Back Nevt Finish
Rack Next Finis		Dack Next S

- Use values of the first rows as field names Specifies whether or not values of the first row should be imported as field names. If this option is disabled, values of the first row will be imported as data and field names will be generated automatically.
- Skip empty rows Specifies whether or not to include empty rows to the resulting data source.
- Trim Blanks Specifies whether to delete all leading and trailing empty spaces from each value in the
- source CSV file. Encoding Specifies the character encoding in the source CSV file. If the
 corresponding Detect automatically check box is enabled, this setting's value is automatically determined.
- Newline type Specifies the line break type in the source CSV file. If the corresponding Detect automatically check box is enabled, this setting's value is automatically determined.
- Value separator Specifies a character used to separate values in the source CSV file. If the corresponding **Detect automatically** check box is enabled, this setting's value is automatically determined.
- Culture Specifies culture information used to import data from the source CSV file.
- Text Qualifier Specifies the character that encloses values in the source CSV file.

Click **Next** to proceed to the next wizard page: Choose columns.

Select a Worksheet, Table or Named Region

O Not e

This wizard page appears only if you selected a Microsoft Excel Workbook on the previous page.

This wizard page allows you to select one of the available worksheets, tables or named regions that will provide data for a report.

Report Wizard – ×
Select the required worksheet, table or defined name referring to the specified range.
Sheet_Categories
Bheet_Products
Sheet_Orders
I Range_Categories
Table_Categories
Table_Products
Table_Orders
Back Next N Finish

Click Next to proceed to the next wizard page: Choose columns.

Choose columns

On this wizard page, you can select required columns and specify their settings.

To select a column, enable the corresponding **Selected** check box. Use **Name** to specify the custom column name and **Type** to choose the column type.

Selecte	d	Name	Туре	
		ProductID	Double	_
*	\checkmark	ProductName	String	
		SupplierID	Double	
	\checkmark	CategoryID	Double	
	\checkmark	QuantityPerUnit	String	
	\checkmark	UnitPrice	Double	
	\checkmark	UnitsInStock	Double	
		UnitsOnOrder	Double	
		ReorderLevel	Double	
		Discontinued	Boolean	
		EAN13	String	

This page also allows you to preview the resulting data by clicking the **Preview...** button.

Product Name	Category ID	Quantity Per Unit	Unit Price	Units In Stock	
Chai	1	10 boxes x 20 bags	18	39	^
Chang	1	24 - 12 oz bottles	19	17	-
Aniseed Syrup	2	12 - 550 ml bottles	10	13	
Chef Anton's Cajun	2	48 - 6 oz jars	22	53	
Chef Anton's Gum	2	36 boxes	21.35	0	
Grandma's Boysen	2	12 - 8 oz jars	25	120	
Uncle Bob's Organi	7	12 - 1 lb pkgs.	30	15	
Northwoods Cranb	2	12 - 12 oz jars	40	6	
Mishi Kobe Niku	6	18 - 500 g pkgs.	97	29	
Ikura	8	12 - 200 ml jars	31	31	
Queso Cabrales	4	1 kg pkg.	21	22	~
				OK	

Click Next to proceed to the next wizard page: Choose Columns to Display in a Report.

Select the Data Source Type

This wizard page allows you to select the required data source type.

	Report Wizar	d	_ ×
Select the data source	e type.		
Database	Entity Framework	Object Binding	Excel File
		Back	Next Finish

Click **Next** to proceed to the next wizard page once you select the data source type.

- Connect to a Database
- Connect to an Entity Framework Data Source Connect to an Object Data
 Source

- Connect to an Excel Data Source

Choose Columns to Display in a Report

This wizard page allows you to select fields (attributes) whose data will be displayed in a report.

The list on the left-hand side shows all available fields (attributes). To select the required fields to be displayed in the report, move them to the right-hand side. Use the dedicated arrow buttons to move fields back and forth.

CategoryID ProductName
QuantityPerUnit
UnitPrice UnitsInStock
<
*

The selected fields and corresponding captions will be automatically added to your report and arranged one under another. You can stop the wizard at this step by clicking **Finish**. In this case, the report will

Category ID	1
Product Name	Chai
Quantity Per Unit	10 boxes x 20 bags
Unit Price	\$18.00
Units In Stock	39
Category ID	1
Product Name	Chang
Quantity Per Unit	24 - 12 oz bottles
Unit Price	\$19.00
Units In Stock	17
Category ID	2
Product Name	Aniseed Syrup
Quantity Per Unit	12 - 550 ml bottles
Unit Price	\$10.00
Units In Stock	13

look similar to the image below.

If you want to customize your report further, click **Next** to proceed to the next wizard page: Add Groping Levels. Note that you should select at least one field to continue creating the report.

Add Groping Levels

This wizard page allows you to group data in a report. If you don't need to group your data, click **Next** to skip this step.

> CategoryID ↓ ↓ ↓ ↓ ↓ ↓	
	CategoryID

Nested grouping and grouping against multiple fields are fully supported. The following image illustrates all basic grouping types.

	No grou	ping		One-lev	vel Grouping		Nested Grouping	Multiple Fields		
BMW	525i	1/1/2009	1	BMW			BMW	BMW 525i		
BMW	525i	1/2/2009	2	525i	1/1/2009	1	525i	1/1/2009	1	
MW	740i	1/3/2009	3	525i	1/2/2009	2	1/1/2009 1	1/2/2009	2	
ovota	Camry	1/4/2009	4	740i	1/3/2009	3	1/2/2009 2	BMW 740i		
ovota	Prius	1/5/2009	5	Toyota			740i	1/3/2009	3	
ovota	Prius	1/6/2009	6	Camry	1/4/2009	4	1/3/2009 3	Toyota Camp	/	
-,		-, -,	-	Prius	1/5/2009	5	Toyota	1/4/2009	4	
				Prius	1/6/2009	6	Camry	Toyota Prius		
							1/4/2009 4	1/5/2009	5	
							Prius	1/6/2009	6	
							1/5/2009 5			
							1/6/2009 6			

The list on the left-hand side displays data fields that can be used to group data. To apply grouping, select the required field and click the right arrow button. To group data against multiple columns, use the button.

To remove a grouping field, select it in the list on the right-hand side and click the left arrow button. You can also change the order of grouping fields using the up and down arrow buttons.

You can stop the wizard on this step by clicking **Finish**. In this case, the report will look similar to the one in the image below.

Category ID	Product Name	Quantity Per Unit	Unit Price	Units In Stock
1				
	Chai	10 boxes x 20 bags	\$18.00	39
	Chang	24 - 12 oz bottles	\$19.00	17
	Guaraná Fantástica	12 - 355 ml cans	\$4.50	20
	Sasquatch Ale	24 - 12 oz bottles	\$14.00	111
	Steeleye Stout	24 - 12 oz bottles	\$18.00	20
	Côte de Blaye	12 - 75 cl bottles	\$263.50	17
	Chartreuse verte	750 cc per bottle	\$18.00	69
	Ipoh Coffee	16 - 500 g tins	\$46.00	17
	Laughing Lumberjack Lager	24 - 12 oz bottles	\$14.00	52
	Outback Lager	24 - 355 ml bottles	\$15.00	15
	Rhönbräu Klosterbier	24 - 0.5 l bottles	\$7.75	125
	Lakkalikööri	500 ml	\$18.00	57
2				
	Aniseed Syrup	12 - 550 ml bottles	\$10.00	13
	Chef Anton's Cajun	48 - 6 oz jars	\$22.00	53

If you want to customize your report further, click **Next**. If data grouping has been applied on this page, proceed to the Specify Summary Options page. If you haven't grouped your data, skip the Summaries step and go to the Choose a Report Layout page.

Specify Summary Options

This wizard page allows you to specify totals for each data group or for the entire report. The specified totals will be displayed after corresponding groups and in the report footer.

The page displays all available numerical and date-time fields that are not used to group data. You can select desired functions using the check box table.

Report Wizard –									
What summary functions would you like to calculate?									
	Sum	Avg	Min	Max	Count				
UnitPrice	\checkmark								
UnitsInStock				\checkmark					
✓ Ignore null va	lues								
				Back	Next S				

There are instances when data fields contain empty values. If you don't want to take these values into account when calculating totals, select the **Ignore NULL values** check box. Otherwise, these values will be treated as zeros for numeric fields and the earliest system date for date-time fields.

You can stop the wizard at this step by clicking **Finish**. If you do so, your report will look similar to the one in the image below.

Category ID	Product Name	Quantity Per Unit	Unit Price	Units In Stock
1				
	Chai	10 boxes x 20 bags	\$18.00	39
	Chang	24 - 12 oz bottles	\$19.00	17
	Guaraná Fantástica	12 - 355 ml cans	\$4.50	20
	Sasquatch Ale	24 - 12 oz bottles	\$14.00	111
	Steeleye Stout	24 - 12 oz bottles	\$18.00	20
	Côte de Blaye	12 - 75 cl bottles	\$263.50	17
	Chartreuse verte	750 cc per bottle	\$18.00	69
	Ipoh Coffee	16 - 500 g tins	\$46.00	17
	Laughing Lumberjack Lager	24 - 12 oz bottles	\$14.00	52
	Outback Lager	24 - 355 ml bottles	\$15.00	15
	Rhönbräu Klosterbier	24 - 0.51 bottles	\$7.75	125
	Lakkalikööri	500 ml	\$18.00	57
Sum			\$455.75	
Max				125

If you want to further customize your report, click **Next** to proceed to the next wizard page: Choose a Report Layout.

Choose a Report Layout

This page allows you to specify 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. The following options are available if data grouping

has been applied.

Report Wizard – ×									
The report layout specifies the manner in which selected data fields are arranged on individual pages.									
Landscape									
XXXXX Xx Xx	XXXXX xx xx xx xx xx	XXXXX xx xx xx xx xx xx xx xx xx xx xx xx xx	XXXXX xx AlignLeft2						
		D - L	Net	Tinink.					
	Landscape	Excities the manner in which selected Landscape XXXXX XX	Excision the manner in which selected data fields are arr P Landscape Image: State stat	Exciting the manner in which selected data fields are arranged on individ Landscape Image: State in the manner in which selected data fields are arranged on individ Image: State in the manner in which selected data fields are arranged on individ Image: State in the manner in which selected data fields are arranged on individ Image: State in the manner in which selected data fields are arranged on individ Image: State in the manner in which selected data fields are arranged on individ Image: State in the manner in which selected data fields are arranged on individ Image: State in the manner in which selected data fields are arranged on individ Image: State in the manner in the ma					

If data hasn't been grouped, you will see the following report layout options.



You can stop the wizard at this step by clicking **Finish**. If you want to customize your report further, click **Next** to proceed to the next wizard page: Choose a Report Style.

Choose a Report Style

On	this	wizard	page,	you	can	specify	one	of	the	predefined	visual	styles	for	the	report.
				,											

Report Wiz	ard – ×
The report style specifies the appearance of y	our report.
Title Caption Data	 Bold Compact Casual Corporate Formal
	Back Next Finish

You can stop the wizard at this step by clicking **Finish**. If you want to customize your report further, click **Next** to proceed to the next wizard page: Enter the Report Title.

Enter the Report Title

On this page, specify the title for the report and click **Finish** to exit the wizard.

R	eport Wizard – ×
We have all the information need	ded to process the report.
Report Title: Pr	roducts Back Next Finish

Label Report

The Report Wizard allows you to create reports of three kinds: empty reports, data-bound reports and label reports. To generate a label report, select Label Report and click Next.

	Report Wizard	_ ×
Select the report type you wish to	o create.	
Empty report	Databound Report	Label Report

After completing the Label Report Wizard, you will get a blank report that generates labels of a specifc size. The report designer will indicate the label boundaries and properly position labels within paper sheets. You can then populate the label area with the required content and print out your labels.

Label creation consists of the following two steps.

- Select the Label Type
- Customize the Label Options

Select the Label Type

This wizard page is intended to select one of the numerous predefined label types.

On this page, you can choose the proper supplier from the **Label product** combo box and a particular product from the **Product number** list. The selected type defines the label's size and layout, as well as the default page type for this label.

	Report Wizard – ×
Select one of the predefined labels by	r specifying the Product and its ID.
Label product:	AOne 🗸
Product number	: 28171 - Address
14/: Jat-	00.7
Wiath:	90.2
Paper Type:	42.5
Paper Size:	210 x 297 mm 8.27 x 11.69 "
	Back Next Finish

Click Next to proceed to the next wizard page: Customize the Label Options.

Customize the Label Options

This wizard page is intended to manually adjust label settings that were automatically specified in the previous step based on the selected supplier and product.

Editors on this page allow you to choose the **Page Size** and freely customize label parameters. The pane on the right-hand side provides a label dimensions preview.

Page Size:	A4 🔽 210 x 297	O Inch Millimeter
Label Width:	90.2 🗘	
Label Height:	42.3 🗘	PITCH MARGIN
Vertical Pitch:	42.3 🗘	
Horizontal Pitch:	92.7 🗘	
Top Margin:	20.0 🗘	
Left Margin:	13.0 🗘	
Right Margin:	14.1 🗘	
Bottom Margin:	23.2 🗘	

Click Finish to complete report creation.

Document Preview

To display a preview for the report currently being opened in the Report Designer, switch to the **Print** Preview tab. You will see the report populated with data and divided into pages.

Sup	pliers		×	· +											Report [Designer	Print	Preview] -	×
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Save	Print	Quick Print	Page Setup	Scale.	First Page	Previous Page	Next Page	Last Page	Zoom Out	Zoom •	Zoom In	Export	Send	Paramete	s Docume Map	nt Thum	onails I	Editing S Fields	Search	Watermark
File		Pr	int			Naviga	ation			Zoom		Exp	ort			Doc	cument			
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							1	0285		4	45		0.20)	\$64	8.0				
							1	0294		1	18		0.00)	\$25	9.2				~
Page:	1 /	110														100 %		(]	+

The document preview allows you to check the print output of a report and customize its additional options using the Preview Toolbar. The report can be then exported to different third-party formats, sent using email or printed.

Different elements of the Report Designer's preview are covered in the following documents.

- Preview Toolbar
- Export Document
- Dialog Parameters Panel Search Panel •
- Document Map Panel

O Not e

To learn more about the options available in the preview mode, refer to the Print Preview for WPF section of this documentation.

Preview Toolbar

The **Preview Toolbar** provides quick access to commands related to report viewing, editing and publishing.



All available commands can be divided into the following sections.

- File Command
- Print
- Commands
- Navigation
 Commanda Zoom
- Commands Zoom Commands Export
- Commands
- Document
- Commands

File Command

Use the following command to save a report to the file.

ICON	COMMAND	DESCTIPTION
	Save	Invokes the Save As dialog allowing you to save a report document to a file.

Print Commands

The following commands allow you to change a report page's settings and print a report document.

ICON	COMMAN D	DESCRIPTION
P	Print	Invokes the Print dialog allowing you to specify the necessary settings and print a report document.
	Quick Print	Prints a report document using the default settings.
- Co	Page Setup	Invokes the Page Setup dialog allowing you to adjust report page settings.
	Scale	Invokes the Scale dialog allowing you to stretch or shrink report content to a percentage of its normal size or the number of pages.

Navigation Commands

Use these commands to navigate through a report document.

ICON	COMMAND	DESCRIPTION

First Page	Switches to the first report page.

ICON	COMMAND	DESCRIPTION
	Previous Page	Switches to the previous report page.
	Next Page	Switches to the next report page.
	Last Page	Switches to the last report page.

Zoom Commands

Use these commands to zoom a report document.

ICON	COMMAND	DESCRIPTION
Q	Zoom Out	Decreases a report document's current zoom factor.
(Zoom In	Increases a report document's current zoom factor.
Q	Zoom	Zooms a report document to a specific zoom factor from the drop-down list.

Export Commands

Use these commands to export a report document to one of the supported third-party formats.

ICON	COMMAN D	DESCRIPTION
Ĵ	Export	Invokes the Export Document dialog allowing you to export a report document into one of the supported third- party formats and save the resulting file on a hard drive.
×.	Send	Invokes the Send via E-Mail dialog allowing you to export a report document into one of the supported third-party formats, save the resulting file on a hard drive and attach this file to a new empty message in the default mail program.

Document Commands

Use these commands to change the visibility state of the Designer's panels and dialogs.

ICON	COMMAND	DESCRIPTION
:	Parameter s	Shows/hides the Parameters Panel where you can specify report parameters before report preview generation is started.
	Document Map	Shows/hides the Document Map Panel, which reflects a report document's structure in a tree-like form.
	Thumbnail s	Shows/hides report thumbnails used to quickly navigate between document pages.
ICON	COMMAND	DESCRIPTION
------	-------------------	---
	Editing Fields	Highlights all editing fields to quickly discover which of the document elements are editable.
66	Search	Shows the Search Panel, which allows you to find a specified text throughout a report document.
	Watermark	Invokes the Watermark dialog that allows you to add a text watermark to a report or turn a picture into a report's background.

Export Document Dialog

The Print Preview allows you to view and edit various format-specific options, and then export a report to one of the supported third-party formats. There are two options for exporting a document. The first way is to export a document to a file on disk using the **Export Document** dialog.

	Export Document	×
Export format:	Txt	~
File path:	D:\Suppliers.txt	••••
Open file af	fter exporting	
More Option	ns	
	OK	Cancel

Another approach is to utilize the **Send via E-Mail** dialog to export a document and send the resulting file via e-mail.

	Send via E-Mail ×
Export format:	Txt
File path:	D:\Suppliers.txt ····
More Option	IS
	OK Cancel

To invoke these dialogs, click the arrow for the **Export...** or **Send...** button, respectively, and choose the required format from the drop-down list. If you simply click one of these buttons, the dialogs will provide settings for the PDF format. Then, you can always change the export format directly in the dialogs using the dedicated **Export Format** drop-down lists.

The following third-party export formats are supported.

- PDF (Portable Document
- Format) HTML (HyperText
- Markup Language) MHT (Web
- archive, single file)
- RTF (Rich Text Format)
- XLS (Microsoft® Word® 97 2003
- document) XLSX (Office® Open XML
- document)
- CSV (Comma-Separated Values file
- format) TXT (Plain text)
- Image (BMP, GIF, JPEG, PNG, TIFF, EMF or WMF format)

In the dialogs, you need to specify the path where the resulting file should be saved. The **Export Document** dialog additionally prompts you to choose whether or not to open the file after exporting.

The dialogs also allow you to specify advanced export options for the selected format. To access and customize these format- specific options, click the **More Options** link.

	Ex	port Document		×
Export format:	Txt			~
File path:	D:\Suppliers.tx	t		
✓ Open file af	ter exporting			
 More Optior 	15			
Encoding:		Windows-1252		>
Text export mo	ode:	Text		>
Text separator:		TAB		
Quote strings v	with separators	False		>
			OK	Cancel
			UK	Cancel

Specify the required options and click **OK** to initiate the export of a report and save the resulting file. After closing the **Send via E- Mail** dialog, the saved file will be attached to a new empty message in the default mail program.

Parameters Panel

The **Parameters** panel allows you to specify report parameters before generating a report preview.

Paramet	ers	Ξ×
Left Side:	Steven Buchan	an 🗸
Right Side:	Andrew Fuller	~
	Reset	Submit

Specify values of the required report parameters using the corresponding parameter editors and click **Submit** to view the resulting report preview. After changing the current values, you can revert back the previously selected values by clicking **Reset**.

If a report contains at least one visible parameter, this panel is displayed by default. To manually change the

panel's visibility state, click the **Parameters** button in the **Toolbar**. If a report doesn't contain any visible parameters, the **Parameters** panel cannot be shown.

Search Panel

The Search panel allows you to find specific text throughout a report document.

Search:	text to find	Settings	Previous	Next	Close

To invoke the **Search** panel, click the **Search** button **Solution** in the **Toolbar** or press CTRL+F.

In the search box on the left, input the text to find. Click the **Settings** button to invoke the dedicated submenu allowing you to specify whether or not to use case-sensitive search, and whether you are required to match the whole word during the search.

Settin	gs
	Whole Words Only
\checkmark	Case Sensitive

To start searching, or search down again, click **Next**, or press ENTER or CTRL+G. To search backward, click **Previous** or press CTRL+SHIFT+G.

Document Map Panel

The **Document Map** panel is an interactive table of contents, which reflects a report's structure in a tree-like form and provides quick navigation through its **bookmarks**.

Document Map 🛛	×
Suppliers	^
 Exotic Liquids 	
Chai	
Chang	
Aniseed Syrup	
New Orleans Cajun Delights	
Chef Anton's Cajun Seasoning	
Chef Anton's Gumbo Mix	
Louisiana Fiery Hot Pepper Sa	~

If a report contains at least one control with a specified bookmark, the **Document Map** is displayed by default. You can then toggle this panel's visibility state using the **Document**

Map button in the Toolbar. If a report does not contain bookmarks, this panel cannot be shown.

Click a bookmark in the **Document Map** to navigate the Print Preview to the

corresponding element in a report document. Note that after exporting a report to the

OneStream Software Report Designer for WPF

PDF format, the **Document Map** is exported as well.