Report Sharp-Shooter Step-By-Step Reports Creation

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Preface

This user guide contains instructions on how to create templates of the common reports using Report Sharp-Shooter. Each article is a step by step description of the report template design process.

This user guide is prepared by Perpetuum Software team for Report Sharp-Shooter users.



Simple Report

Template of the report displaying current date, logo and a note.

Step 1

Create new project in Microsoft Visual Studio environment. Select item New\Project from the main menu.



Select Windows Forms Application, set name of the project – "SimpleReport", set directory to save the project to.

New Project					
Recent Templates		.NET Fra	mework 4 🔹 Sort by: Default	• II II	Search Installed Templates
Installed Templates Visual C#		_c#	Windows Forms Application	Visual C#	Type: Visual C# A project for creating an application with a
Windows Web		*	WPF Application	Visual C#	Windows Forms user interface
▷ Office Cloud Reporting			Console Application	Visual C#	
 SharePoint Silverlight 		C#	Class Library	Visual C#	
Test WCF		[∞] c#	WPF Browser Application	Visual C#	
Workflow Other Languages		C♯	Empty Project	Visual C#	
 Other Project Type Database Test Projects 	5	_ c [#]	Windows Service	Visual C#	
Online Templates		•C [#]	WPF Custom Control Library	Visual C#	
		₹C₽	WPF User Control Library	Visual C#	
		<mark>⊞</mark> C‡	Windows Forms Control Library	Visual C#	
Name:	SimpleReport				
Location:	c:\		\documents\visual studio 2010\Projects	•	Browse
Solution name:	SimpleReport				 Create directory for solution Add to source control
					OK Cancel

Change the project properties. Select the Project SimpleReport Properties... item in the main menu.



Select the Target framework\.NET Framework4 item in the Application tab.

Application	Configuration: N/A
Build	
Build Events	Assembly name:
	SimpleReport
Debug	Target framework:
Resources	.NET Framework 4 Client Profile
Services	.NET Framework 2.0 .NET Framework 3.0
Settings	.NET Framework 3.5 .NET Framework 3.5 Client Profile
Reference Paths	.NET Framework 4 .NET Framework 4 Client Profile

Press the "Yes" button in the opened window.



Target Fran	nework Change
?	Changing the Target Framework requires that the current project be closed and then reopened. Any unsaved changes within the project will be automatically saved. Changing Target Framework may require manual modification of project files in order to build. Are you sure you want to change the Target Framework for this project?
	Yes No Help

Open main form of the application in the editor by double click on the "Form1.cs" in the Solution Explorer.



Drag and drop "ReportManager" element from the Toolbox. This element stores collections of report templates and data sources.



The component is displayed in the lower part of the window.



In the property grid, initialize the property OwnerForm of the ReportManager component by selecting the form it is located on.



Step 5

Double click on the reportManager1 to open ReportManager editor.

Form1.cs [Design]* ×		
ng Form1		
	- ReportManager editor	
	Reports Data sources	
	Add Delete Run Designer	
	FileReportSlot	
		OK Cancel
	UrlReportSlot	

On the "Reports" tab, press button "Add" and select "InlineReportSlot".

Step 6

Set report name in the property ReportName – "SimpleReport".

Press button "Run Designer" in order to open Report Designer.

ReportManager editor		
Reports Data sources		
inlineReportSlot1 Report name = SimpleReport	₽ ₽	
	 Data (ApplicationSettings) 	
	▲ Design (Name)	inlineReport Slot 1
	GenerateMember Modifiers	True Private
	Misc	Document
	ExceptionMode ReportName	Waming Simple Report
	(insperimente	Cimpionoport
	ReportName	
Add Delete Run Designer		
		UK Cancel

6

Create new empty template – select item File\New from the main menu.



Select "Blank Report" in the Wizards Gallery and click "OK".

•	PERPETUUM software	www.perpetuumsoft.com			
	📴 Wizards Gall	ery			
	New Saved				
	Blank Report				
	Standard Repo	rt			
	Pivot table Re	port			
			Load from file	ОК	Cancel

23

Step 8

Click the "Properties" tab of the tool window in the right part of the designer.



You	will	see	properties	of the	edited	template	on	the	"Properties"	tab
_										

Pro	perties	→ Å ×
doc	um gt1 Docum	ent 🔹
]≵↓ 🖾	
4	Appearance	
⊳	GraphicsSettings	PerpetuumSoft.Reporting.l
	MasterReport	
	ShowObjectBour	True
۵	Behaviour	
	DoublePass	False
	InvalidRenderLer	ThrowException
۵	Design	
	Name	document 1
4	Grid Settings	
	GridStep	0,5 cm
	ShowGrid	True
	SnapToGrid	True
۵	Misc	
	DataSources	(Collection)
	Delete EmptyPage	False
	Description	-
	MetricUnit	Centimeter
	Parameters	(Collection)
	Title	
۵	Render	
	StyleSheet	
4	Script	
	CommonScript	
	CompilerVersion	
	CustomLanguage	
	GenerateScript	
	Imports	Maria ID- dia NET
	ScriptLanguage	VISUAI BASICINE I
Co Det Allo	mmonScript termines code of the ws you to declare	e main script sections. global script variables a
2	Prope 📇 Dat	aso

Set property ScriptLanguage = CSharp.



Press button "TextBox" on the Insert tab in the group Text.



Click on the template area to add TextBox element.

Set property Value to Now.

Name textBox1 Binding Value - fx Now	
--------------------------------------	--

Select property TextFormat, press button 🗔 in order to open Format Editor.



Select "Date" in the "Formats" list and "dd/MM/yy" in the "Properties" list.

🕎 Format Editor		23
Formats	Sample	
General	05.11.02	
Number		
Currency	Properties	
Date	d	
Time	D	
Percentage	f	
Custom	F	
	dd/MM/yy	
	dd/MM/yyyy	
	OK Cancel	

Add one more TextBox to the template. Double click on the element on the report template and open Text Editor (editor of the property Text). Write "My first report." in the editor.





Click on the template area to add Picture element.

Double click Picture element on the template and open dialog to set path to the picture. Select an image with a logo and press "Open". Set property SizeMode = Normal.

Pro	perties	- ↓ ×
pict	ture1 Picture	•
	〕≵↓ │ <mark>ा</mark> ा ª _ट │	
⊿	Appearance	
	Angle	0
	Border	
	Fill	[None]
\triangleright	Image	System.Drawing.E
	ImageAlign	TopLeft
\triangleright	Margins	0; 0; 0; 0 cm
	SizeMode	Normal 👻
	StyleName	Normal
	ToolTip	Stretch 😼
⊿	Data	AutoSize
	Tag	Uniform
	_	

Report template:

<now></now>	My first report.	

Step 11

Save report template and close Report Designer.

Step 12

Right click on the form and select "View Code" in the context menu in order to view code.

PER	PETUUM software	www.perj	petuun	nsoft.com		
F	orm1.cs [Desig	ın]* ×				
	- Form1					
			F	View Code	F7	
			۵	Lock Controls	NE	
			E.	Paste	Ctrl+V	
			3	Properties		
			_			-

Add the following code to the class constructor in order to display report. Write the RenderComplited event handler of the InlineReportSlot object.

```
public Form1()
{
    InitializeComponent();
    inlineReportSlot1.RenderCompleted += new
EventHandler(reportSlot_RenderCompleted);
    }
    private void reportSlot_RenderCompleted(object sender, EventArgs e)
    {
        using (PerpetuumSoft.Reporting.View.PreviewForm previewForm = new
PerpetuumSoft.Reporting.View.PreviewForm(inlineReportSlot1))
        {
            previewForm.WindowState = FormWindowState.Maximized;
            previewForm.ShowDialog(this);
        }
    }
}
```

Step 13

Get back to the application form by pressing the "Form1.cs[Design]" tab.

File	Edit	View	Ref	acto	r F	roje	ct	Bui	d
16	-	- 🞽		9	*	Ð	2	9	•
1	1 🗟 🛓	A.≥	t '[[]	•	× I	=	2	0	
2	Form1.	cs ×	For	n1.c	s (D	esigr	ıJ		
Data	🔩 Sim	pleRep	ort.F	orm	1				

Place two buttons on the form (drag and drop "Button" element from the Toolbox).



Select Button element on the form and edit its Text property in the property grid. Set Text = Template for one button and Text = Report for the other one.

Pro	perties	▼ Ф	×	Prop	perties	- ↓ ×
but	ton1 System.Wi	ndows.Forms.Butto	•	but	ton2 System.Wi	ndows.Forms.Buttc 👻
•	≵ ↓ 🔲 🖋			•	≜ ↓ 🔳 🖋	
	ImageIndex	(none)	*		ImageIndex	(none) 🔺
	ImageKey	(none)			ImageKey	(none)
	ImageList	(none)			ImageList	(none)
_	RightToLeft	No			RightToLeft	No
C	Text	Template 📋 🔻)	C	Text	Report 👖 🔽
	TextAlign	MiddleCenter			TextAlign	MiddleCenter
	TextImageRelati	Overlay			TextImageRelati	Overlay
	UseMnemonic	True			UseMnemonic	True
	UseVisualStyleB	True			UseVisualStyleB	True
	UseWaitCursor	False			UseWaitCursor	False

Create Click event handlers for the buttons – double click on the Button element on the form. Add code launching report generation to the event handler. For example, you can use the following code:

priv {	vate	void	k	outt	coni	L_C	lic	k (c	bj	ect	02	sen	der,	,	Ev	ent	cArg	gs	e)
}	inli	neRep	pc	ortS	Slot	:1.	Des	ign	те	npla	at	te ());						
priv {	rate	void	k	outt	con2	2_C	lic	k (c	bj	ect	07	sen	der,	,	Ev	ent	CAr	gs	e)
}	inli	neRep	рс	ortS	Slot	:1.	Pre	par	e (;									

Step 14

Press button "Start Debugging" on the Visual Studio toolbar in order to start application.

File	Edit	View	Refactor	Project	Build	Debug	Team	Data	Tools	Test	Window	Help	
16	- 🔛	- 🞽	🖬 🥥 J	k 🖻 🛍	, -) -	• @ • <	🖻 • 🖳		Debug		- 🛛 🚈		- 🖂 🛃 🖄 🏷 🛃 💶 - 🖕
1	- 🔁 🖣	A?	1 🗧 🕯) i i i i i i i i i i i i i i i i i i i	2 🗆	ŞP 🗣	Ş1 (3 4	23	-, ,				

Click the "Report" button in the opened application window.



Generated report will open with Report Viewer.



In order to edit template, close Report Viewer and press "Template" on the application form.

- Form1	
Template	Report



Data Binding

Template of the report displaying information on the employee; data is loaded from the data source.

Step 1

Create a new project in Microsoft Visual Studio. Select New\Project from the main menu.



Select Windows Forms Application, set name of the project – "Data" and set directory to save the project to.

New Project					2 ×
Recent Templates		.NET Fra	mework 4 🔹 Sort by: Default		Search Installed Templates
Installed Templates Visual C#		 #	Windows Forms Application	Visual C#	Type: Visual C# A project for creating an application with a
Windows Web		*	WPF Application	Visual C#	Windows Forms user interface
▷ Office Cloud Reporting		с. С.	Console Application	Visual C#	
 SharePoint Silverlight 		r c♯	Class Library	Visual C#	
Test WCF		[∞] c≉	WPF Browser Application	Visual C#	
Workflow Other Languages		C#	Empty Project	Visual C#	
 Other Project Typ Database Test Projects 	es	<mark>C</mark> #	Windows Service	Visual C#	
Online Templates		•4	WPF Custom Control Library	Visual C#	
		-C#	WPF User Control Library	Visual C#	
		<mark>∄</mark> C‡	Windows Forms Control Library	Visual C#	
	_				
Name:	Data				
Location:	c:/		\documents\visual studio 2010\Projects	•	Browse
Solution name:	Data				 Create directory for solution Add to source control
					OK Cancel

Change the project properties. Select the Project\Data Properties... item in the main menu.

File	Edit	View	Proje	ect	Build	Debug	Team	Data	Format	Tools					
: 🎦	- 🔛	- 🞽		Ad	ld Wind	ows Form	ı				Ī				
: #		후 릐	***	Add User Control											
-	1		B)	Ad	ld Comp	oonent					l				
2 -	rorm1	cs	₹	Add Class Shift+Alt+C											
ata S			8:	Ad	ld New I	tem			Ctrl+Sh	ift+A					
ouro		Form1	:::	Ad	ld Existir	ng Item			Shift+A	lt+A	I				
Ŕ				Exe	clude Fr	om Proje	ct								
꽃			6	Sh	ow All F	iles					I				
allo				Ad	ld Refere	ence					l				
X				Ad	ld Servic	e Referen	ice				I				
				Set	t as Starl	tUp Proje	ct				l				
			4_{2}	Re	fresh Pro	oject Too	lbox Iten	ns							
				Da	ta Prope	erties									
				-				5							

Select the Target framework\.NET Framework4 item in the Application tab.

Application		
Build	Configuration: N/A	atfo
Ruild Events	Assembly name:	
Dulid Events	SimpleReport	
Debug	Target framework:	
Resources	.NET Framework 4 Client Profile	-
Services	.NET Framework 2.0 .NET Framework 3.0	
Settings	.NET Framework 3.5 .NET Framework 3.5 Client Profile	
Reference Paths	.NET Framework 4 Client Profile	

Press the "Yes" button in the opened window.



Target Fran	nework Change
2	Changing the Target Framework requires that the current project be closed and then reopened. Any unsaved changes within the project will be automatically saved. Changing Target Framework may require manual modification of project files in order to build. Are you sure you want to change the Target Framework for this project?
	Yes No Help

Open main form of the application in the editor by double click on "Form1.cs" in the Solution Explorer.



Click "DataSet" element in the Toolbox and place it onto the form.



Select "Untyped dataset", click "OK".



The component is displayed in the lower part of the window.



Step 4

Select dataSet1 component in the form editor. On the property grid, select "Tables" property, press button in order to open Tables Collection Editor.

Properties 🔻 🕂 🗙											
dataSet1 System.Data.DataSet											
<u>€</u> 2↓ ■ ≠ ■											
	Namespace		•								
	Prefix										
	Relations	(Collection)									
(Tables	(Collection)	1								
	Design		2								
	(Name)	dataSet1									
	GenerateMemb	True	-								
	Modifiers	Private	-								
4	Misc										
	EnforceConstrai	i True									
	RemotingForma	Xml	-								
Tal	oles										
The collection that holds the tables for this DataSet.											

Press button "Add" in order to add a table. Set property TableName = Employee.

Tables Collection Editor			R .
Members:		Employee Properties:	
0 Employee		▲ Data (ApplicationSetting)	
		Columns	(Collection)
		Constraints	(Collection)
		DisplayExpression	
		MinimumCapacity	50
		Namespace	
		Prefix	
		PrimaryKey	DataColumn[]
		TableName	Employee
		⊿ Design	
		(Name)	dataTable1
	×	GenerateMember	True
		Modifiers	Private
Add		⊿ Misc	

Select "Columns" property, press button in order to open property editor. Press "Add" to add a new column. Add four columns. Set value of the property ColumnName to "FirstName", "LastName", "Title", "Phone", "BirthDate", "Address" correspondingly.

Columns Collection Editor				U	?	x
Members:	,	٩dd	Iress Properties:			
0 FirstName		۵	Data			•
1 LastName		\triangleright	(ApplicationSetting:			
2 Title			AllowDBNull	True		
3 Phone			AutoIncrement	False		
4 BirthDate			AutoIncrementSeed	0		
5 Address			AutoIncrementStep	1		Ξ
			Caption	Address		
			ColumnName	Address		
			DataType	System.String		
			DateTimeMode	UnspecifiedLoca	I	
			DefaultValue	<dbnull></dbnull>		
			Expression			
			MaxLength	-1		
	<u> </u>		Namespace			
Add			Prefix			-
					Close	

Right click on the form and select "View Code" in the context menu in order to view code.

Form1.cs [Design]* ×			
🖳 Form1		_ • •	
	F	View Code	F7
	8	Lock Controls	
	ß	Paste	Ctrl+V
	2	Properties	

To fill a data source, add the following code to the class constructor:

```
public Form1()
{
    InitializeComponent();
    DataRow row = dataTable1.NewRow();
    row["FirstName"] = "Robert";
    row["LastName"] = "King";
    row["Title"] = "Sales Representative";
    row["Phone"] = "(71)555-5598";
    row["BirthDate"] = "29.05.1960";
    row["Address"] = "UK, London, Edgeham Hollow Winchester Way";
    dataTable1.Rows.Add(row);
}
```

Step 7

Get back to the application form by clicking the "Form1.cs[Design]" tab.



Click "ReportManager" element on the Toolbox and place it onto the form. This element is designed to store collections of report templates and data sources.



Component is displayed in the lower part of the window.

🖻 dataSet1	reportManager1

Step 8

On the properties grid, initialize OwnerForm property of the ReportManager by selecting the form it is located on.



Step 9

Double click on the ReportManager component and open ReportManager editor.

🖳 Form1	3			
	e ReportManager editor			
	 L.			
	Add Delete	Run Designer	ОК	Cancel

Ş

Go to "Data sources" tab, press "Add", set name of the data source – "Employee", select data source value – "dataSet1.Employee".



Go to "Reports" tab of the ReportManager editor, press "Add" and select "InlineReportSlot".

ReportManager editor	
Reports Data sources	
InlineReportSlot OK	Cancel
UriReportSlot	

Set name of the report to "Data" in the ReportName property.

Click "Run Designer" in order to open template editor – Report Designer.



Create new empty template – select File\New in the main menu.



Select "Blank Report" in the Wizards Gallery and click "OK".

•	PERPETUUM software	www.perpetuumsoft.com			
	🖳 Wizards Gal	ery			
	New Saved				
	Blank Report				
	Standard Rep	ort			
	Pivot table Re	port			
			Load from file	ОК	Cancel

Click the "Properties" tab of the tool window in the right part of the designer.



23

You will see properties of the edited template on the "Properties" tab

Properties	- 1	ļ	×			
docum st1 Document			•			
A Appearance						
GraphicsSettings PerpetuumSoft.Re	epo	rtir	na.L			
MasterReport			1			
ShowObjectBour True						
⊿ Behaviour						
DoublePass False						
InvalidRenderLer ThrowException	n					
⊿ Design						
Name document 1						
Grid Settings						
GridStep 0,5 cm						
ShowGrid True						
SnapToGrid True						
⊿ Misc						
DataSources (Collection)						
DeleteEmptyPage False						
Description						
MetricUnit Centimeter			_			
Parameters (Collection)			_			
Title			_			
⊿ Render						
StyleSheet			_			
⊿ Script						
CommonScript			-			
CompilerVersion			-			
CustomLanguage			-1			
GenerateScript			-1			
Imports			-1			
ScriptLanguage VisualBasicNET			J			
			-			
CommonScript						
CommonScript Determines code of the main script secti	ons					
CommonScript Determines code of the main script secti Allows you to declare global script variat	ons	i. a.				

Set property ScriptLanguage = CSharp.



Press "DataBand" button on the Insert tab in the group Container.



Click on the template area to add DataBand band.

Set data source in the property DataSource = Employee.

Properties	→ ₽ X									
dataBand1 DataBand										
₽ 2↓ 🔲 P Z										
⊿ Appearance										
StyleName										
ToolTip										
⊿ Data										
DataSource	Employee 🔍									
FilterExpression										
InstanceCount	0									
Sort	(Collection)									
Tag										
Totals	(Collection)									

Step 15

Press "Detail" button on the Insert tab in the group Container.

File Home I	nsert Layout Vi	ew				_	_
New PageHeader New PageOverlay Page PageFooter Page	T TextBox AdvancedText RT RichText Text	Picture ArCode	ChartControl ChartControl Widget WinFormsControl tration	{☐ DataBand {☐ GroupBand {─ BandContainer	SideBySide	Header Detail Footer	SubReport

Click on the DataBand area to add the Detail band inside DataBand.

data Dan di Data Dan d	D-t-O-	- Emerican														1
Jataband I:Databand Datasource = Employee																
detail1:Detail																
L III																
end of dataBand1																



Press "TextBox" button on the Insert tab in the group Text.



Click on the Detail area to add TextBox inside Detail band.

Click button "Script editor" on the toolbar to open Script editor and set Value property. Add the following code: "dataBand1["FirstName"].ToString() + " " + dataBand1["LastName"].ToString()".

Nam	e textBox1	Binding Value			•	fx																	
	1 1 .	2 3 4	ь ,	5 1	6 1	7	1 8	1 9		10	1 1	····	. 12	1 12	3 1	14		15		16	1	7 1	18
						-		1 1															_
-																							_
	dataBand1:DataBand Dat	taSource = Emplo	byee				1											_		_			
-		•																	_				_
1	0	0	🖳 Scri	ipt Edito	r																		23
-	• •	•	1 Ę	g()	+ " "	' + da	ataBar	nd1["	Last	Name	"].:	[oSt:	ring	0 ~	Scri	pt Edit	or –						
2	end of databand i														E	Bands		Data	So.	. Pa	aram	eters	
-															.	Employ	yee J Gal	Ide					
3																- Specie		us					
-																							
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-																							
6																							
7																							
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-																							
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-																							
10			•											F	L								
-														Code	e Snip	opets		0	К		Can	ncel	
11			_													_			_				

Step 17

Add four TextBox elements. Set Text property value to "Title", "Birth Date", "Address", "Home Phone".

Change Detail size, size and orientation of the TextBox elements. Press Ctrl select all TextBox elements. In order to left-align text click the "Align Middle Left" button on the Format tab in the group Alignment.



Go to "DataSources" tab.



Drag and drop fields "Title", "BirthDate", "Address", "HomePhone" from the "dataBand1" tree to the detail1 band. As a result TextBox elements are created. Value property will feature script loading data from the data source. Change size of the element and right-align text.

dataBand1:DataBand DataSource = Employee		
detail1:Detail <databand1["firstname" ["LastName"].ToString()?</databand1["firstname" 	"].ToString() + " " + dataBand1 >	
Title	<databand1["title"]></databand1["title"]>	
Birth Date	<databand1["birthdate"]></databand1["birthdate"]>	
Address	<databand1["address"]></databand1["address"]>	
Home Phone	<databand1["phone"]></databand1["phone"]>	
end of dataBand1		

Save template and close Report Designer.

Step 20

Add code responsible for displaying report to the class constructor. Write RenderComplited event handler of InlineReportSlot object.

```
public Form1()
        {
            InitializeComponent();
            DataRow row = dataTable1.NewRow();
            row["FirstName"] = "Robert";
            row["LastName"] = "King";
            row["Title"] = "Sales Representative";
            row["Phone"] = "(71)555-5598";
            row["BirthDate"] = "29.05.1960";
            row["Address"] = "UK, London, Edgeham Hollow Winchester Way";
            dataTable1.Rows.Add(row);
            inlineReportSlot1.RenderCompleted += new
EventHandler(reportSlot RenderCompleted);
        }
        private void reportSlot RenderCompleted(object sender, EventArgs e)
        {
            using (PerpetuumSoft.Reporting.View.PreviewForm previewForm = new
PerpetuumSoft.Reporting.View.PreviewForm(inlineReportSlot1))
            {
                previewForm.WindowState = FormWindowState.Maximized;
                previewForm.ShowDialog(this);
            }
        }
```

Step 21

Add two buttons onto the form (drag and drop "Button" element from the Toolbox onto the form).


Select Button element on the form, edit Text property on the property grid. Set Text = Template for one button and Text = Report for the other one.

Pro	perties	▲ Å	×	Pro	perties	*	Ψ×
but	t ton1 System.Wi	ndows.Forms.Butto	-	but	t ton2 System.Wi	ndows.Forms.B	uttc 🕶
•	≵↓ 🔲 🖋			•	≵↓ 📃 🖋		
	ImageIndex	(none)	*		ImageIndex	(none)	~
	ImageKey	(none)			ImageKey	(none)	
	ImageList	(none)			ImageList	(none)	
	RightToLeft	No			RightToLeft	No	
C	Text	Template 📋 👻	F	0	Text	Report]	-)
	TextAlign	MiddleCenter			TextAlign	MiddleCenter	
	TextImageRelati	Overlay			TextImageRelati	Overlay	
	UseMnemonic	True			UseMnemonic	True	
	UseVisualStyleB	True			UseVisualStyleB	True	
	UseWaitCursor	False			UseWaitCursor	False	

Create Click event handlers for the buttons – double click on the Button element on the form. Add code launching report generation to the event handler. For example, use the following code:

```
private void button1_Click(object sender, EventArgs e)
{
    inlineReportSlot1.DesignTemplate();
}
private void button2_Click(object sender, EventArgs e)
{
    inlineReportSlot1.Prepare();
}
```

Step 22

Click "Start Debugging" on the Visual Studio toolbar in order to start application.

File	Edit	View	Refactor	Project	Build	Debug	Team	Data	Tools	Test	Window	Help	
1	- 🔛	- 🔁	. ()	x 🗈 🛍	9	· @ • <	F - E		Debug	•	2		- 🔩 🖀 🎲 🕺 🖳 🗉 - 🖕
	- 🗟 👌	L_ A≳	12 🛊 🕯		2 🗆	P 🗣	Şii 🖏 🗸	2 🕹	-, ,				

Click the "Report" button in the opened application window.



Generated report will open with Report Viewer.

👌 doo	cument1	- Preview rep	port						-								
File	View	Navigate	Document Help		s Bo	158 %	- 1 🗖		T + 1		0.0						
·=· 🖻					100%	130 /6	•			× <u>×</u>	99						
		Robe	ert King														
			5														
		Title										S	ales	s Re	pres	entati	ve
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		Addr	ess			UK.	Lor	ndon	. Ed	aeh	am I	Hol	low \	Wind	ches	ter W	av
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		Hom	e Phone	<u> </u>										C	71)5	55-55	98
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1																	

In order to edit template, close Report Viewer and press "Template" on the application form.



Table Wizard

Table Wizard allows a user to create different tables in a few clicks.

Template of the report displaying information on the employee; data is loaded from the data source.

Step 1

Create a new project in Microsoft Visual Studio. Select New\Project from the main menu.



Select Windows Forms Application, set name of the project – "TableWizard" and set directory to save the project to.



Change the project properties. Select the Project\TableWizard Properties... item in the main menu.



Select the Target framework\.NET Framework4 item in the Application tab.

Application	Configuration: N/A							
Build								
Build Events	Assembly name:							
	SimpleReport							
Debug	Target framework:							
Resources	.NET Framework 4 Client Profile 🔹							
Services	.NET Framework 2.0 .NET Framework 3.0							
Settings	.NET Framework 3.5 .NET Framework 3.5 Client Profile							
Reference Paths	.NET Framework 4 .NET Framework 4 Client Profile							

Press the "Yes" button in the opened window.

Target Fran	nework Change
2	Changing the Target Framework requires that the current project be closed and then reopened. Any unsaved changes within the project will be automatically saved. Changing Target Framework may require manual modification of project files in order to build. Are you sure you want to change the Target Framework for this project?
	Yes No Help

Step 3

Open main form of the application in the editor by double click on "Form1.cs" in the Solution Explorer.

Solution Explorer 💿 🔻 🗸 🗙
🖺 🔁 👩 🖧
🤜 Solution 'TableWizard' (1 project)
TableWizard
Properties
References
📑 app.config
🕟 🔚 Form1.cs
Program.cs

Click "DataSet" element in the Toolbox and place it onto the form.



Select "Untyped dataset", click "OK".

Add Dataset							
Choose a typed or untyped dataset to add to the designer.							
Typed dataset							
Name:							
Creates an instance of a typed dataset class already in your project. Choose this option to work with a dataset that has a built-in schema. See Help for details on generating typed datasets.							
Output dataset							
Creates an instance of an untyped dataset class of type System.Data.DataSet. Choose this option when you want a dataset with no schema.							
OK Cancel							

The component is displayed in the lower part of the window.



Step 4

Select dataSet1 component in the form editor. On the property grid, select "Tables" property, press button in order to open Tables Collection Editor.



Press button "Add" in order to add a table. Set property TableName = Employee.



Step 5

Select "Columns" property, press button 🗔 in order to open property editor. Press "Add" to add a new column. Add four columns. Set value of the property ColumnName to "FirstName", "LastName", "Title", "Phone", "BirthDate", "Address" correspondingly.

olumns Collection Editor					
Members:		Add	dress Properties:		
0 FirstName]	۵	Data		
1 LastName		⊳	(ApplicationSetting:		
2 Title			AllowDBNull	True	
3 Phone			AutoIncrement	False	
4 BirthDate			AutoIncrementSeed	0	
5 Address			AutoIncrementStep	1	
			Caption	Address	
		(ColumnName	Address	
			DataType	System.String	
			DateTimeMode	UnspecifiedLocal	L
			DefaultValue	<dbnull></dbnull>	
			Expression		
	×		MaxLength	-1	
	•		Namespace		
Add			Prefix		

Right click on the form and select "View Code" in the context menu in order to view code.

Form1.cs [Design]* ×			
🖳 Form1			
	F	View Code	F7
	۵	Lock Controls	
	P1	Paste	Ctrl+V
	3	Properties	

To fill a data source, add the following code to the class constructor:

```
public Form1()
{
    InitializeComponent();
    DataRow row = dataTable1.NewRow();
    row["FirstName"] = "Maria";
```

```
row["LastName"] = "Anders";
row["Title"] = "Sales Representative";
row["Phone"] = "(71)555-5598";
row["BirthDate"] = "29.05.1960";
row["Address"] = "Obere str. 57";
dataTable1.Rows.Add(row);
row = dataTable1.NewRow();
row["FirstName"] = "Ana";
row["LastName"] = "Trujillo";
row["LastName"] = "Owner";
row["Title"] = "Owner";
row["Phone"] = "(5)555-4729";
row["BirthDate"] = "01.07.1971";
row["Address"] = "Avda. de la Constitution 222";
dataTable1.Rows.Add(row);
row = dataTable1.NewRow();
row["FirstName"] = "Antonio";
row["LastName"] = "Moreno";
row["Title"] = "Owner";
row["Phone"] = "(5)555-3932";
row["BirthDate"] = "12.03.1969";
row["Address"] = "Mataderos 2312";
dataTable1.Rows.Add(row);
```

}

Step 7

Get back to the application form by clicking the "Form1.cs[Design]" tab.



Click "ReportManager" element on the Toolbox and place it onto the form. This element is designed to store collections of report templates and data sources.



Component is displayed in the lower part of the window.

🖻 dataSet1	reportManager1

Step 8

Double click on the ReportManager component and open ReportManager editor.

🖳 Form1	3			
	e ReportManager editor			
	 L.			
	Add Delete	Run Designer	ОК	Cancel

Ş

Go to "Data sources" tab, press "Add", set name of the data source – "Employee", select data source value – "dataSet1.Employee".



Go to "Reports" tab of the ReportManager editor, press "Add" and select "InlineReportSlot".

Reports Data sources	ReportManager editor		
	Reports Data sources		
Add Delete Run Designer	Add Delete Run Designer		
FileReportSlot	FileReportSlot	ОК	Cancel
	InlineReportSlot		

Set name of the report to "TableWizard" in the ReportName property.

Click "Run Designer" in order to open template editor – Report Designer.



Create new empty template – select File\New in the main menu.



Select "Blank Report" in the Wizards Gallery and click "OK".

		23
Load from file	ОК	Cancel
	Load from file	Load from file

Click the "Properties" tab of the tool window in the right part of the designer.

🗄 🗠 🔍 🗟 🖶 🗧 🧃	document1 - Report Sharp-S	Shooter Designer		_ D X
File Home Insert	Layout View			About A
Paste Objects	B Z U Alignment	Fill Fill Border Im Im Margin	lo Style	Edit Style
Name Name	Pinding	Appearance	Styles	¹³ S
			5	
11 11213141516	17 8 9 10 11 12 13 14	4 15 16 17 18 19	DataSources	→ 中 ×
-			Bands Data Sources	Parameters
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19			temployee ⊕ Special Fields	
page1 ()	₹ .	A	Properties 🖹 DataSources	DocumentTree
page1		Units =	= Centimeter - 48%	

You will see properties of the edited template on the "Properties" tab

Properties 🝷 🖣 🗙									
document1 Document									
4	Appearance	D 1 00D 1							
₽	GraphicsSettings	PerpetuumSoft.Reporting							
L	MasterReport	-							
L.	ShowObjectBou	Irue							
4	Behaviour	F 1							
L	DoublePass	False							
	Invalid RenderLe	ThrowException							
⊿	Design	1 11							
	Name	document I							
⊿	Grid Settings								
L	GridStep	0.5 cm							
L	ShowGrid	True							
Ŀ	Snap ToGrid	True							
۵	Misc								
L	DataSources	(Collection)							
L	Delete EmptyPag	False							
L	Description								
L	MetricUnit	Centimeter							
L	Parameters	(Collection)							
L	Title								
⊿	Render								
L	StyleSheet								
⊿	Script								
L	CommonScript								
L	CompilerVersion								
L	CustomLanguag								
L	GenerateScript								
L	Imports								
ScriptLanguage VisualBasicNET									
-									
Со	CommonScript								
Determines code of the main script sections.									
Allows you to declare global script variables									
7	Prop 🔚 Dat	aSo 🔚 Document							

Set property ScriptLanguage = CSharp.



Step 13

Press "Table" button on the Insert tab in the Tables Container.

F	ile Home	Insert	Lä	ayout View	_			-			🕜 About 🗠
	🎙 📑 PageHe	ader 📔		T TextBox	X	🔀 Shape	ChartControl	{ <mark>≡</mark> DataBand	SideBySide	Header	E SubReport
N	w 🖹 PageOv	erlay	able	T AdvancedText	Picture	✓ZipCode	🐼 Widget	E GroupBand	🖶 CrossBand	💻 Detail	🗲 Content
Pa	ge 📄 PageFoo	oter		RTF RichText		BarCode	WinFormsControl	{ BandContainer		Footer	PivotTable
	Page	Ta	ables	Text		Illus	tration		Containe	er	

Set data source in the property DataSource = Employee.

🕎 Table Wizard	X
Data source	> <
	Next > Cancel

Step 15

Select the fields for displaying in the table by double-click on the "Available fields" list or by click on the ">" button.

📴 Table Wizard	X
Data source Employee	
Available fields	Selected fields
Phone BirthDate Address	LastName Add selected
	Next > Cancel

Click "Next >".

📴 Table Wizard		23
Data source		
Employee		
Available fields		Selected fields
Title		FirstName
BirthDate		LastName
Address		Phone
	>	
	<	
		Next > Cancel

Change the properties of the selected fields in the appeared wizard window by double-click on the edit field.

Set Field title for the "FirstName" field to "First Name".

Set Field title for the "LastName" field to "Last Name".

Set Width property for the "FirstName" and the "LastName" fields to "4.00"

Leave the "Column count" and the "Layout type" properties as they are. Click "Next".

Table Wizard				23
Data source: Employ	ee			
Field name	Field title	Width (cm)	Aggregate fund	tion
FirstName	First Name	4.00		
LastName	Last Name	4.00	•	
Phone	Phone	6.17		
		, , , , , , , , , , , , , , , , , , ,		Û
				Û
Column count 1	🔶 Layout type	List 🔹		
		< Back	Next >	Cancel

Step 17

Select the fields from the "Available fields" list to sort the table rows if the table requires sorting. Click "Finish".



Check the "Layout Bands" on the "View" tab of the Ribbon panel to locate elements in a more representative form.

🔚 🛤 🖓 🔁 👼 🕞 👻 document1 - Report Sharp-Shooter Designer	. 🗆 🗙
File Home Insert Layout View	About
Show Grid Show Object Bounds Snap to Grid Layout Bands Show Rulers Show/Hide Show/Hide Zoom & Pan	
Name page1 Layout bands Binding StyleName	
1 1 1 1 2 1 3 1 4 1 5 1 6 1 7 1 8 1 9 1 10 1 11 1 12 1 13 1 14 1 15 1 16 1 17 1 18	19 🛂 🐚
dataBandEmployee:DataBand DataSource = Employee	- p
headerEmployee:Header - First Name Last Name Phone	E Contractions
detailEmployee:Detail	Data
² ("Employee.FirstNa ("Employee.LastNa >	Sourc
end of dataBandEmployee	<u>Ř</u>
	Cum Cum
5	entTr
	e e
	-
	•
page1 Units = Centimeter - 96%	•

Step 19

Save the template and close the Report Designer.



Add code responsible for displaying report to the class constructor. Write RenderComplited event handler of the InlineReportSlot object.

```
public Form1()
{
    InitializeComponent();
    DataRow row = dataTable1.NewRow();
    row["FirstName"] = "Maria";
    row["LastName"] = "Anders";
    row["Title"] = "Sales Representative";
    row["Phone"] = "(71)555-5598";
    row["BirthDate"] = "29.05.1960";
    row["Address"] = "Obere str. 57";
    dataTable1.Rows.Add(row);
    row = dataTable1.NewRow();
    row["FirstName"] = "Ana";
    row["LastName"] = "Trujillo";
    row["Title"] = "Owner";
    row["Phone"] = "(5)555-4729";
    row["BirthDate"] = "01.07.1971";
    row["Address"] = "Avda. de la Constitution 222";
    dataTable1.Rows.Add(row);
    row = dataTable1.NewRow();
    row["FirstName"] = "Antonio";
    row["LastName"] = "Moreno";
    row["Title"] = "Owner";
    row["Phone"] = "(5)555-3932";
    row["BirthDate"] = "12.03.1969";
    row["Address"] = "Mataderos 2312";
    dataTable1.Rows.Add(row);
    inlineReportSlot1.RenderCompleted += new
EventHandler(reportSlot RenderCompleted);
}
private void reportSlot RenderCompleted(object sender, EventArgs e)
{
      using (PerpetuumSoft.Reporting.View.PreviewForm previewForm = new
PerpetuumSoft.Reporting.View.PreviewForm(inlineReportSlot1))
      {
            previewForm.WindowState = FormWindowState.Maximized;
            previewForm.ShowDialog(this);
      }
}
```

Step 21

Add two buttons onto the form (drag and drop "Button" element from the Toolbox onto the form).





Select Button element on the form, edit Text property on the property grid. Set Text = Template for one button and Text = Report for the other one.

Prop	perties	₹ ₽ 3	×	Pro	perties	*	η ×
but	ton1 System.Wi	ndows.Forms.Buttc	-	button2 System.Windows.Forms.Buttc -			
•	≵↓ 🔲 🖋				≵ ↓ 🔲 🥖		
	ImageIndex	(none)	^		ImageIndex	(none)	*
	ImageKey	(none)			ImageKey	(none)	
	ImageList	(none)			ImageList	(none)	
-	RightToLeft	No			RightToLeft	No	
C	Text	Template 📋 🔽		0	Text	Report]	-)
-	TextAlign	MiddleCenter			TextAlign	MiddleCenter	
	TextImageRelati	Overlay			TextImageRelati	Overlay	
	UseMnemonic	True			UseMnemonic	True	
	UseVisualStyleB	True			UseVisualStyleB	True	
	UseWaitCursor	False			UseWaitCursor	False	
	UseWaitCursor	False			UseWaitCursor	False	

Create Click event handlers for the buttons – double click on the Button element on the form. Add code launching report generation to the event handler. For example, use the following code:

```
private void button1_Click(object sender, EventArgs e)
{
    inlineReportSlot1.DesignTemplate();
}
private void button2_Click(object sender, EventArgs e)
{
    inlineReportSlot1.Prepare();
}
```

Step 22

Click "Start Debugging" on the Visual Studio toolbar in order to start application.

File	Edit	View	Refactor	Project	Build	Debug	Team	Data	Tools	Test	Window	Help	
16	- 🔛	- 🞽	🖬 🥥 J	6 🗈 🛍	9	· (° - 4	-		Debug	•	- 🛛 🌁		- 🔩 🖀 🎲 🕺 🏷 🔜 🗠 - 🖕
1	<i>≣</i> ≧	L_ A≳	1 🗐 👬 🕯	= <u>=</u> 1	2 🗆	P 🗣	Şii 🔍 🗸	2 🗈	-, ,				

Click the "Report" button in the opened application window.

The generated report will open in a Report Viewer.

Report

Template

😺 document	t1 - Preview report			
File View	Navigate Docu	ment Help 🖑 🍳 🔍 🔍 f		∓ † ↓ ± G Ð
	First Name Ana Antonio Maria	Last Name Trujillo Moreno Anders	Phone (5)555-4729 (5)555-3932 (71)555-5598	E

In order to edit a template, close Report Viewer and press "Template" on the application form.

Report



Using Scripts

The template of a report contains numbers from 1 to 12 in the form of dial. The orientation of TextBox element can be changed with the help of scripts depending on line number.

Step 1

Create a new project in Microsoft Visual Studio. Select New\Project from the main menu.



Select Windows Forms Application, set the project name – "Script", and directory to save the project to.

New Project					_? <mark>_</mark> ×_
Recent Templates		.NET Fra	mework 4 🔹 Sort by: Default	• •	Search Installed Templates
Installed Templates		 ¢#	Windows Forms Application	Visual C#	Type: Visual C# A project for creating an application with a
Windows Web		**	WPF Application	Visual C#	Windows Forms user interface
Office Cloud			Console Application	Visual C#	
 Keporting SharePoint Silverlight 		c ♯	Class Library	Visual C#	
Test WCF		[∞] c≉	WPF Browser Application	Visual C#	
Workflow ▷ Other Languages		C#	Empty Project	Visual C#	
 Other Project Typ Database Test Projects 	es	<mark>_c</mark> ≉	Windows Service	Visual C#	
Online Templates		•••	WPF Custom Control Library	Visual C#	
		₹C #	WPF User Control Library	Visual C#	
		≣c‡	Windows Forms Control Library	Visual C#	
Name:	Script				
Location:	c:/		\documents\visual studio 2010\Projects	Browse	
Solution name:	Script				 Create directory for solution Add to source control
				_	OK Cancel
· · · · · · · · · · · · · · · · · · ·					

Change the project properties. Select the Project\Script Properties... item in the main menu.

File	Ed	it	View	Proje	ect	Build	Debug	Team	Data	Format	Tools
: 🗗	•	.	- 💕	.	Ad	d Wind	ows Form				
: 4		1	후 릐		Ad	d User (Control				
-	-	4	10	1	Ad	ld Comp	oonent				
2	Forr	m1.	cs [Des	₽\$	Ad	d Class.				Shift+Al	t+C
ata S	ſ			8 .	Ad	d New I	tem			Ctrl+Shi	ft+A
Ő		•	Form1	:::	Ad	d Existir	ng Item			Shift+Al	t+A
Ċ.					Exe	clude Fr	om Projec	ct			
×					Sh	ow All F	iles				
oolb					Add Reference						
X					Ad	d Servic	e Referen	ce			
					Set	t as Starl	tUp Proje	ct			
				$+_{\mathcal{T}}$	Re	fresh Pro	oject Too	lbox Iten	ıs		
				8	Sc	ript Prop	perties				
				_	_				-13		

Select the Target framework\.NET Framework4 item in the Application tab.

Application	Configuration: N/A	Platfo
Build	Comgatadon. (N/A	
Build Events	Assembly name:	
Dulla Events	SimpleReport	
Debug	Target framework:	
Resources	.NET Framework 4 Client Profile	-
Services	.NET Framework 2.0 .NET Framework 3.0	
Settings	.NET Framework 3.5 .NET Framework 3.5 Client Profile	
Reference Paths	.NET Framework 4 .NET Framework 4 Client Profile Install other frameworks	
		_

Press the "Yes" button in the opened window.



Target Fran	nework Change
2	Changing the Target Framework requires that the current project be closed and then reopened. Any unsaved changes within the project will be automatically saved. Changing Target Framework may require manual modification of project files in order to build. Are you sure you want to change the Target Framework for this project?
	Yes No Help

Open the main form of the application in the editor by double click on "Form1.cs" in the Solution Explorer.



Drag and drop the "ReportManager" component from the Toolbox onto the form. This component is used to store collections of report templates and data sources.



The component is displayed in the lower part of the window.



On the property grid, initialize the OwnerForm property of the ReportManager component by selecting a form on which it is located.

Pro	perties	- ↓	×						
rep	reportManager1 PerpetuumSoft.Repo -								
•	≜ ↓ 🔲 🖋								
	DataSources	Objects	*						
4	Design								
	(Name)	reportManager1							
	GenerateMemb	True							
	Modifiers	Private							
⊿	Misc		Ξ						
	About	(c) 2002-2011 Perp							
	OwnerForm	Form1 🔵 🔻							
	Reports	(Collection)	-						

Step 5

Double click on reportManager1 and open the ReportManager editor.

Form1.cs [Design]* ×]			
	ReportManager editor			
	Reports Data sources			
	Add Delete	Run Designer		
	FileReportSlot InlineReportSlot UrlReportSlot		(OK Cancel
	-			

Click the "Add" button on the "Reports" tab and select "InlineReportSlot".

Step 6

Set the report name in the ReportName – "Script" property.

Click "Run Designer" to open the Report Designer template editor.



Create a new empty template – select the File\New item in the main menu.



Select "Blank Report" in the Wizards Gallery and click "OK".

•	PERPETUUM software	www.perpetuumsoft.com			
	📴 Wizards Gall	ery			
	New Saved				
	Blank Report				
	Standard Rep	ort			
	Pivot table Re	port			
			Load from file	ОК	Cancel

23

Step 8

Click the "Properties" tab of the tool window in the right part of the designer.



You	will	see	properties	of the	edited	template	on	the	"Properties"	tab
_										

Pro	perties	→ Å ×
doc	um gt1 Docum	ent 🔹
]≵↓ 🖾	
4	Appearance	
⊳	GraphicsSettings	PerpetuumSoft.Reporting.l
	MasterReport	
	ShowObjectBour	True
۵	Behaviour	
	DoublePass	False
	InvalidRenderLer	ThrowException
۵	Design	
	Name	document 1
4	Grid Settings	
	GridStep	0,5 cm
	ShowGrid	True
	SnapToGrid	True
۵	Misc	
	DataSources	(Collection)
	Delete EmptyPage	False
	Description	-
	MetricUnit	Centimeter
	Parameters	(Collection)
	Title	
۵	Render	
	StyleSheet	
4	Script	
	CommonScript	
	CompilerVersion	
	CustomLanguage	
	GenerateScript	
	Imports	Maria ID- dia NET
	ScriptLanguage	VISUAI BASICINE I
Co Det Allo	mmonScript termines code of the ws you to declare	e main script sections. global script variables a
2	Prope 📇 Dat	aso

Set property ScriptLanguage = CSharp.



To open Script Browser press the "Script Browser" button in the Home tab in the Scripts group.



Right-click on Document1 in the DocumentTree. Select CommonScript in appeared context menu.



Write the following code in the opened window:

```
"private int R = 3;
private int a = 8;
private int b = 8;
private int y = 4;"
```

Contract CommonScript	* 🖶 🗄
<pre>private int R = 3; private int a = 8; private int b = 8; private int y = 4;</pre>	
I	

Click the "Save all" button and close the Script Browser.

Step 10

Press the "DataBand" button in the Insert tab in the group Container.

File	Home	Insert	Layout Vie	ew						
	PageHeade	er T	TextBox	*	<u>र</u> Shape	ChartControl	E DataBand	SideBySide	Header	SubReport
New 3	PageOverla	ay T	AdvancedText	Picture	ZipCode	🐼 Widget	GroupBand	🖶 CrossBand	💻 Detail	📑 Content
Page 冒	PageFoote	r BTF	RichText	ricture	BarCode	WinFormsControl	{ BandContainer		Footer	PivotTable
	Page		Text		Illust	ration		Containe	er	

Click on the template area to add DataBand band.

Set property InstanceCount = 7.



Step 11

Press the "Detail" button in the Insert tab in the group Container.

File Home	Insert Layout Vi	ew	
PageHeade New PageOverla Page PageFooter	r TextBox y AdvancedText RTR RichText	Image: Shape Image: ChartControl Picture Image: ZipCode Image: WinFormsControl Image: BarCode Image: WinFormsControl	Image: DataBand Image: SideBySide Image: Header Image: SubReport Image: GroupBand Image: CrossBand Image: CrossBand Image: CrossBand Image:

Click on the DataBand area to add the Detail band inside DataBand.

dataBand1:DataBan	d DataSource	e = Employee		 	 	 	 	 	1
detail1:Detail				0					1
end of dataBand1									

Step 12

Press the "TextBox" button in the Insert tab in the group Text.



Click on the Detail area to add TextBox inside Detail band.

Add one more TextBox in the same way.

Step 13

To open Script Browser press the "Script Browser" button in the Home tab in the Scripts group.

File	Home	Insert	Layou	t View	Format					
Paste Obje	cts 🔏 C C 🔀 D	ut Objects opy Objects elete Object	B	IUA	· A A	• • <u>А</u> с		Fill Border Margin	No Style	Edit Style
	Clipboar	d		For	nt	- Fa	Alignment	Appearance	Styles	Scripts

Right-click on textBox1 in the DocumentTree. Select Bindings\Value in appeared context menu.



Write the following code in the opened window: "dataBand1.LineNumber - 1".



Right-click on textBox1 in the DocumentTree. Select Bindings\Location in appeared context menu.



Write the following code in the opened window:

"new PerpetuumSoft.Framework.Drawing.Vector(Math.Sqrt(R*R - (y - b) * (y - b)) + a, 0).ConvertUnits(Unit.Centimeter,Unit.InternalUnit)"



Step 14

In the same way, set the Value property to "13 - dataBand1.LineNumber", Location property – "new PerpetuumSoft.Framework.Drawing.Vector(-Math.Sqrt(R*R - (y - b) * (y - b)) + a, 0).ConvertUnits(Unit.Centimeter,Unit.InternalUnit)" to TextBox2.

Click the "Save all" button and close the Script Browser.

Step 15

Select the Detail band. Click the "Properties" button in the Properties tab.



Edit band size: Size: Y = 0 cm.

⊿	Layout	
\triangleright	Location	0; 0,5 cm
⊿	Size	21; 0 cm
	X	21 cm
	Y	0 cm

Step 16

Now it is necessary to modify TextBoxes appearance.

Select both TextBoxes. Set the Size property: X = 1 cm, Y = 0.5 cm.

⊿	Layout	
\triangleright	Location	
⊿	Size	1; 0,5 cm
1	X	1 cm
	Y	0,5 cm

Select the Fill property in the "Properties" tab, click the \bowtie button. Select SolidFill, Color = Black property.
PERPETUUM software	www.perpetuumsoft.com		
PERPETUUM software	www.perpetuumsoft.com	Properties textBox1 TextBox 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 Appearance 0 1 <th1< th=""> 1 1 1 <th< th=""><th></th></th<></th1<>	
ОК	Cancel		

Select the TextFill property in the "Properties" tab, click the \bowtie button. Select "SolidFill", Color = White property.

The report template looks as follows:

dataRapd1:DataRapd									
databalid i.Databalid									
detail1:Detail									
	<dat -<="" <13="" th=""><th></th></dat>								
and of dataBand1									

Step 17

Save the template and close Report Designer.

Step 18

Right click on the form and select "View Code" in the context menu to view code.

Form1.cs [Desi	gn]* X		×
		View Code	F7
		Paste Properties	Ctrl+V

Add code for report display to the class constructor. Write the RenderComplited event handler of the InlineReportSlot object.

```
public Form1()
    {
        InitializeComponent();
        inlineReportSlot1.RenderCompleted += new
EventHandler(reportSlot_RenderCompleted);
    }
    private void reportSlot_RenderCompleted(object sender, EventArgs e)
    {
        using (PerpetuumSoft.Reporting.View.PreviewForm previewForm = new
PerpetuumSoft.Reporting.View.PreviewForm(inlineReportSlot1))
        {
            previewForm.WindowState = FormWindowState.Maximized;
            previewForm.ShowDialog(this);
        }
    }
}
```

Step 19

Get back to the application form by clicking the "Form1.cs[Design]" tab.

Form1.cs ×	Form1.cs [Design]
🔩 Script.Forr	n1
⊡using	System;
using	System.Collectior
using	System.ComponentN
uning	System Data:

Add two buttons onto the form (drag and drop the "Button" element from the Toolbox onto the form).



Select the Button element in the form; edit the Text property in the property grid. Set Text = Template for the first button and Text = Report for the second one.

Properties	т џ	×	Prop	perties	▼ ₽	X
button1 System.Wi	ndows.Forms.Buttc	-	but	t ton2 System.Wi	ndows.Forms.Buttc	•
2↓ 3				≵ ↓ 🔲 🥖		
ImageIndex	(none)	~		ImageIndex	(none)	*
ImageKey	(none)			ImageKey	(none)	
ImageList	(none)			ImageList	(none)	
RightToLeft	No			RightToLeft	No	
Text	Template 📋 💌	F	0	Text	Report 📔 👻)
TextAlign	MiddleCenter			TextAlign	MiddleCenter	
TextImageRelati	Overlay			TextImageRelati	Overlay	
UseMnemonic	True			UseMnemonic	True	
UseVisualStyleB	True			UseVisualStyleB	True	
UseWaitCursor	False			UseWaitCursor	False	

Create the Click event handlers for the buttons – double click on the Button element in the form. Add code, which launches the report generation, to the event handler. For example, use the following code:

```
private void button1_Click(object sender, EventArgs e)
{
    inlineReportSlot1.DesignTemplate();
}
private void button2_Click(object sender, EventArgs e)
{
    inlineReportSlot1.Prepare();
}
```

Step 20

Click "Start Debugging" in the Visual Studio toolbar in order to run the application.

File	Edit	View	Refactor	Project	Build	Debug	Team	Data	Tools	Test	Window	Help	
1	- 🔠	- 🞽	🖬 🗊 d	6 🗈 🛍	, ' ,	· (° - 4	F - B		Debug		- 🌁		• 🗠 🖻 🖬 🕸 🎌 🛃 🖳 • 🖕
	- 💫 👌	A.≳	1 🖬 🕯		2 🗆	P P	Şii (iş 🧹	28	-, ,				

Click the "Report" button in the opened application window.



The generated report can be opened with Report Viewer.



In order to edit the template, close Report Viewer and press ``Template'' in the application form.





Similar sample can be found in the Samples Center – Scripting & Binding\Location changing.



List

Template of a report containing a list of customers including company address, contact person and phone.

Step 1

Create a new project in Microsoft Visual Studio. Select New\Project from the main menu.



Select Windows Forms Application, set project name – "List", set directory to save the project to.

New Project					? <mark>×</mark>
Recent Templates		.NET Fra	mework 4 Sort by: Default		Search Installed Templates
Installed Templates Visual C#		_c #	Windows Forms Application	Visual C#	Type: Visual C# A project for creating an application with a
Windows Web		**	WPF Application	Visual C#	Windows Forms user interface
▷ Office Cloud		C1	Console Application	Visual C#	
 Keporting SharePoint Silverlight 		c #	Class Library	Visual C#	
Test WCF		°°c#	WPF Browser Application	Visual C#	
Workflow ▷ Other Languages		C#	Empty Project	Visual C#	
 Other Project Type Database 	es	_ C [#]	Windows Service	Visual C#	
Online Templates		•C#	WPF Custom Control Library	Visual C#	
		~ C [#]	WPF User Control Library	Visual C#	
		≣c♯	Windows Forms Control Library	Visual C#	
Name:	List				
Location:	c:\		\documents\visual studio 2010\Projects	•	Browse
Solution name:	List				Create directory for solutionAdd to source control
					OK Cancel

Change the project properties. Select the Project\List Properties... item in the main menu.

File	E	dit	View	Proje	ect	Build	Debug	Team	Data	Format	Tools
1	-		• 💕	1	Ad	d Wind	ows Form				
1		ļ₽	후 릐	**	Ad	d User (Control				
-	-	4	10	1	Ad	ld Comp	oonent				
	FO	rm1.	cs [Des	₽\$	Ad	d Class.				Shift+Al	t+C
ata S	Ĩ			.	Ad	d New I	tem			Ctrl+Shi	ft+A
ouro			Form1	:::	Ad	d Existir	ng Item			Shift+Al	t+A
Ċ.					Exe	lude Fr	om Projec	ct			
<u>*</u>				6	Sh	ow All F	iles				
					Ad	d Refer	ence				
Š.					Ad	d Servio	e Referen	ice			
					Set	t as Star	tUp Proje	ct			
				$+_{\mathcal{T}}$	Re	fresh Pr	oject Too	lbox Iten	ns		
				6	Lis	t Prope	ties				
				_	_					5	

Select the Target framework\.NET Framework4 item in the Application tab.

Application		
Build	Configuration: N/A	tfo
Puild Events	Assembly name:	
build Events	SimpleReport	
Debug	Target framework:	
Resources	.NET Framework 4 Client Profile	-
Services	.NET Framework 2.0 .NET Framework 3.0	1
Settings	.NET Framework 3.5 .NET Framework 3.5 Client Profile	
Reference Paths	.NET Framework 4 .NET Framework 4 Client Profile	
		-

Press the "Yes" button in the opened window.



Target Fran	nework Change
?	Changing the Target Framework requires that the current project be closed and then reopened. Any unsaved changes within the project will be automatically saved. Changing Target Framework may require manual modification of project files in order to build. Are you sure you want to change the Target Framework for this project?
	Yes No Help

Open main form of the application by double click on the "Form1.cs" in the Solution Explorer.



Click "DataSet" element on the Toolbox and place DataSet onto the form.



Select "Untyped dataset", click "OK"

Add Datase	•t	? ×				
Choose a	a typed or untyped dataset to add to the designer. d dataset					
Name:		-				
Creates a with a da	an instance of a typed dataset class already in your project. Choose this optio ataset that has a built-in schema. See Help for details on generating typed da	n to work tasets.				
Onty	ped dataset					
Creates a when yo	Creates an instance of an untyped dataset class of type System.Data.DataSet. Choose this option when you want a dataset with no schema.					
	ОК	Cancel				

The component is available in the lower part of the window.



Step 4

Select dataSet1 in the form editor. On the property grid, select Tables property, click button $\boxed{}$ in order to open property editor.

Pro	perties	▲ [I X					
dataSet1 System.Data.DataSet								
•	≵↓ 🔲 🖋							
	Namespace		*					
	Prefix							
	Relations	(Collection)						
(Tables	(Collection)						
4	Design							
	(Name)	dataSet1						
	GenerateMemb	True	-					
	Modifiers	Private	-					
4	Misc							
	EnforceConstrai	True						
	RemotingForma	Xml	-					

Click "Add" in order to add table. Set property TableName = Customers.

Tables Collection Editor					8
Members:		Cus	tomers Properties:		
0 Customers		۵	Data		
		⊳	(ApplicationSetting		
			Columns	(Collection)	
			Constraints	(Collection)	
			DisplayExpression		
			MinimumCapacity	50	
			Namespace		
			Prefix		
			PrimaryKey	DataColumn[]	
			TableName	Customers	
		۵	Design		
			(Name)	dataTable1	
	X		GenerateMember	True	
			Modifiers	Private	
Add		4	Misc		

Select Columns property, click button $\overline{\mbox{lm}}$ in order to open property editor.

Tables Collection Editor					?	x
Members:		Cus	stomers Properties:			
0 Customers		۵	Data			*
		⊳	(ApplicationSetting			
			Columns	(Collection)		
			Constraints	(Collection)		
			DisplayExpression			
			MinimumCapacity	50		
			Namespace			=
			Prefix			
			PrimaryKey	DataColumn[]		
			TableName	Customers		
		۵	Design			
	1)	(Name)	dataTable1			
	X	ĸ	GenerateMember	True		
			Modifiers	Private		
Add		۵	Misc			-
					Close	

Click "Add" to add a new column. Add four columns. Set ColumnName property to "CompanyName", "Address", "ContactName", "Phone" correspondingly.

olumns Collection Editor				?	
Members:		Pho	one Properties:		
0 Company Name	7	۵	Data		
1 Address		⊳	(ApplicationSetting:		
2 Contact Name			AllowDBNull	True	
3 Phone			AutoIncrement	False	
			AutoIncrementSeed	0	
			AutoIncrementStep	1	:
			Caption	Phone	
		(ColumnName	Phone	
			DataType	System.String	
			DateTimeMode	UnspecifiedLocal	_
			DefaultValue	<dbnull></dbnull>	
			Expression		
	×		MaxLength	-1	
			Namespace		
Add			Prefix		

Close the editors.

Step 6

Right click on the form and select "View Code" in the context menu to view code.

Form1.cs [Design]* ×			
E Form1			
	F	View Code	F7
	8	Lock Controls	115
	ß	Paste	Ctrl+V
	8	Properties	
	(

Add the following code to the class constructor in order to fill data source.

```
DataRow row = dataTable1.NewRow();
row["CompanyName"] = "Alfreds Futterkiste";
row["Address"] = "Obere Str. 57";
row["ContactName"] = "Maria Anders";
row["Phone"] = "030-0074321";
dataTable1.Rows.Add(row);
row = dataTable1.NewRow();
row["CompanyName"] = "Ana Trujillo Emparedados y helados";
row["Address"] = "Avda. de la Constitución 2222";
row["ContactName"] = "Ana Trujillo";
row["Phone"] = "(5) 555-4729";
dataTable1.Rows.Add(row);
row = dataTable1.NewRow();
row["CompanyName"] = "Ernst Handel";
row["Address"] = "Kirchgasse 6";
row["ContactName"] = "Roland Mendel";
row["Phone"] = "7675-3425";
dataTable1.Rows.Add(row);
row = dataTable1.NewRow();
row["CompanyName"] = "Toms Spezialitäten";
row["Address"] = "Luisenstr. 48";
row["ContactName"] = "Karin Josephs";
row["Phone"] = "0251-031259";
dataTable1.Rows.Add(row);
```

}

Get back to the application form by clicking the "Form1.cs[Design]" tab.

Form1.cs* × Form1.cs [Design]*				
At List.Form1				
⊡using System;				
using System.Collections				
using System.ComponentMo				
using System.Data;				
using System.Drawing:				

Click on the "ReportManager" on the Toolbox and place this component onto the form. This component is designed to store collections of report templates and data sources.



The component is available in the lower part of the window.

dataSet1	reportManager1
--	----------------

Step 8

On the property grid, initialize OwnerForm property of the ReportManager by selecting the form it is located on.

Pro	Properties 🔹 👎 🗙					
rep	reportManager1 PerpetuumSoft.Repo -					
	2↓ 🔲 🖋 🖻					
	DataSources	Objects	*			
⊿	Design					
	(Name)	reportManager1	m			
	GenerateMemb	True				
	Modifiers	Private				
⊿	Misc		E			
	About	(c) 2002-2011 Perp				
Þ	OwnerForm	Form1 💌				
-	Reports	(Collection)	-			

Step 9

Double click on ReportManager to open ReportManager editor.

w.perpetuumsoft.com	

ReportManager editor					
Reports Data sources					
]				
Add Delete Run Designer					
	OK Cancel				

Go to "Data sources" tab, click "Add", set data source name – "Customers", select data source value – "dataSet1.Customers".



Go to "Reports" tab, click "Add" and select "InlineReportSlot".

🖳 ReportManager editor		• X
Reports Data sources		
Add Delete Run Designer		
FileReportSlot		Canad
	OK	Cancel
UrlReportSlot		

Set name of the report in the property ReportName – "List".

Click "Run Designer" in order to open template editor – Report Designer.



Create new empty template – select File\New from the main menu.



Select "Blank Report" in the Wizards Gallery and click "OK".

0	PERPETUUM software	
	🖳 Wizards Gallery	23
	New Saved	
	Blank Report	
	Standard Report	
	Pivot table Report	
	Load from file OK	Cancel

Click the "Properties" tab of the tool window in the right part of the designer.





Pro	Properties 👻 🖣 🗙				
docum st1 Document 🔹					
4	Appearance				
⊳	GraphicsSettings	PerpetuumSoft.Reporting.			
	MasterReport				
	ShowObjectBour	True			
۵	Behaviour				
	DoublePass	False			
	InvalidRenderLer	ThrowException			
۵	Design				
	Name	document 1			
4	Grid Settings				
	GridStep	0,5 cm			
	ShowGrid	True			
	SnapToGrid	True			
۵	Misc				
	DataSources	(Collection)			
	Delete EmptyPage	False			
	Description				
	MetricUnit	Centimeter			
	Parameters	(Collection)			
	Title				
4	Render				
	StyleSheet				
4	Script				
	CommonScript				
	CompilerVersion				
	CustomLanguage				
	GenerateScript				
	Imports				
	ScriptLanguage	VisualBasicNET			
CommonScript Determines code of the main script sections. Allows you to declare global script variables a					
***	riope	Boom Document			

Set property ScriptLanguage = CSharp.



Press "DataBand" button on the Insert tab in the group Container.



Click on the template area to add DataBand band.

Set data source in the property DataSource = Customers.

Pro	perties	•		×					
dat	dataBand1 DataBatsd								
•)≵↓ 🔲 ª₃	<u></u>							
۵	Appearance								
	StyleName								
	ToolTip								
۵	Data		_	_					
	Data Source	Customers		-					
	FilterExpression								
	InstanceCount	0							
	Sort	(Collection)							
	Tag								
	Totals	(Collection)							

Step 15

Press "Detail" button on the Insert tab in the group Container.



Click on the DataBand area to add the Detail band inside DataBand.

File Home Insert Layout Vie	ew Format			
PageHeader T TextBox	📷 🛃 Shape 🔢 ChartControl	E DataBand SideBySide	🗖 Header 🛛 📒 SubReport	GroupHeader
New 👔 PageOverlay 📑 AdvancedText	Picture 12 ZipCode 🛞 Widget	E GroupBand CrossBand	💳 Detail 🛛 📑 Content	🧮 GroupFooter
Page 📄 PageFooter 🛛 🕅 RichText	BarCode 🛅 WinFormsControl	{📟 BandContainer	🔄 Footer 🚺 ΡivotTable	
Page Text	Illustration	Containe	er	Obsolete
Name detail1 Binding S	StyleName 🔹 🏂			
1 1 1 1 2 1 3	. 4 . 5 . 6 . 7 . 8 .	9 i 10 i 11 i 12 i 13	ı 14 i 15 i 16 i	17 i 18 i 19 🕎
dataBand1:DataBand DataSource = C	Customers			
detail1:Detail				
- 0		0		1
1 0				Ĭ
end of dataBand1		Y		

Go to "Data Source" tab.





Drag and drop fields: "Company Name", "Address", "Contact Name", and "Phone" from the dataBand1 tree to the detail1 band. As a result TextBoxes are created. Value property is automatically filled with script loading data from the data source.

Change size of the elements and locate them in the way shown in the picture below.



dataBand1:DataBand DataSource = Customers		
detail1:Detail		
<pre><databand1 <databand1="" ["companyname"]=""> ["ContactName"]></databand1></pre>	<databand1 ["Address"]></databand1 	<databand1["phone"]></databand1["phone"]>
end of dataBand1		

Save template, close Report Designer.

Step 18

Add code to display report to the class constructor. Write RenderComplited event handler of the InlineReportSlot object.

```
public Form1()
      {
           InitializeComponent();
           DataRow row = dataTable1.NewRow();
           row["CompanyName"] = "Alfreds Futterkiste";
           row["Address"] = "Obere Str. 57";
           row["ContactName"] = "Maria Anders";
           row["Phone"] = "030-0074321";
           dataTable1.Rows.Add(row);
           row = dataTable1.NewRow();
           row["CompanyName"] = "Ana Trujillo Emparedados y helados";
           row["Address"] = "Avda. de la Constitución 2222";
           row["ContactName"] = "Ana Trujillo";
           row["Phone"] = "(5) 555-4729";
           dataTable1.Rows.Add(row);
           row = dataTable1.NewRow();
           row["CompanyName"] = "Ernst Handel";
           row["Address"] = "Kirchgasse 6";
           row["ContactName"] = "Roland Mendel";
           row["Phone"] = "7675-3425";
           dataTable1.Rows.Add(row);
           row = dataTable1.NewRow();
           row["CompanyName"] = "Toms Spezialitäten";
           row["Address"] = "Luisenstr. 48";
           row["ContactName"] = "Karin Josephs";
           row["Phone"] = "0251-031259";
           dataTable1.Rows.Add(row);
           inlineReportSlot1.RenderCompleted += new
           EventHandler(reportSlot RenderCompleted);
        }
        private void reportSlot RenderCompleted(object sender, EventArgs e)
            using (PerpetuumSoft.Reporting.View.PreviewForm previewForm = new
PerpetuumSoft.Reporting.View.PreviewForm(inlineReportSlot1))
            {
                previewForm.WindowState = FormWindowState.Maximized;
                previewForm.ShowDialog(this);
            }
        }
```

Step 19

Place two buttons onto the form (drag and drop "Button" element from the Toolbox onto the form).



Select Button element on the form, edit Text property on the property grid. Set Text = Template for one button and Text = Report for the other one.



Create Click event handlers for the buttons – double click on the Button element on the form. Add code launching report generation to the event handler. For example, use the following code:

```
private void button1_Click(object sender, EventArgs e)
{
    inlineReportSlot1.DesignTemplate();
}
private void button2_Click(object sender, EventArgs e)
{
    inlineReportSlot1.Prepare();
}
```

Step 20

Click "Start Debugging" on the Visual Studio toolbar in order to run application.

File	Edit	View	Refactor	Project	Build	Debug	Team	Data	Tools	Test	Window	Help	
16	-	- 🞽	🖬 🥥)	k 🗈 🛍	9	· (° - 4	- -		Debug		- 🛛 🌁		- 🖂 🛃 😒 🏷 🛃 💶 - 🖕
	- 🗟 🎙	L_ A≳	17 🚛 🕯		2 🗆	, , , , ,	şa 🗛 🗸	2.3	-, ,				

Click the "Report" button in the opened application window.



Generated report will open with Report Viewer.

🧼 document1 - Pre	view report		and the second se		_ 0 <mark>_ x</mark>
File View Na	vigate Document Help				
🖶 😫 📙 🚺]#62000000000	📑 👧 158 % 🔹 📄 🔜 🕇 🕇	1 ± 1 G ©		
					Â
	Alfreds Futterkiste	Maria Anders	Obere Str. 57	030-0074321	
E	Ana Trujillo Emparedados y hel	Ana Trujillo	Avda. de la Constitución 2222	(5) 555-4729	
	Ernst Handel	Roland Mendel	Kirchgasse 6	7675-3425	=
-	Toms Spezialitäten	Karin Josephs	Luisenstr. 48	0251-031259	

In order to edit template, close Report Viewer and press "Template" on the application form.



Similar application sample is located in the following folder "Samples Report Sharp-Shooter CSharp GettingStarted Example".



Header and Footer

Template of a report containing list of companies with additional information, each column has header and footer.

Step 1

Create a new project in Microsoft Visual Studio. Select New\Project from the main menu.



Select Windows Forms Application, set project name – "Header_Footer", set directory to save project to.

New Project					? *
Recent Templates		.NET Fra	amework 4 🔹 Sort by: Default		Search Installed Templates
Installed Templates ▲ Visual C#		[]c#	Windows Forms Application	Visual C#	Type: Visual C# A project for creating an application with a
Windows Web		*	WPF Application	Visual C#	Windows Forms user interface
▷ Office Cloud		с:\ ЕС	Console Application	Visual C#	
 SharePoint Silverlight 		c ♯	Class Library	Visual C#	
Test WCF		[∞] c≉	WPF Browser Application	Visual C#	
Workflow ▷ Other Languages		C#	Empty Project	Visual C#	
 Other Project Typ Database 	es	_ c [#]	Windows Service	Visual C#	
 Test Projects Online Templates 		ec #	WPF Custom Control Library	Visual C#	
		₹C	WPF User Control Library	Visual C#	
		≞c‡	Windows Forms Control Library	Visual C#	
Name:	Header_Footer				
Location:	c:\	-	\documents\visual studio 2010\Projects	•	Browse
Solution name:	Header_Footer				Create directory for solution
					Add to source control
					OK Cancel



Change the project properties. Select the Project ${\rm Header_Footer}$ Properties... item in the main menu.



Select the Target framework\.NET Framework4 item in the Application tab.

Application	Configuration N/A
Build	
Build Events	Assembly name:
Dund Events	SimpleReport
Debug	Target framework:
Resources	.NET Framework 4 Client Profile 🔹
Services	.NET Framework 2.0 .NET Framework 3.0
Settings	.NET Framework 3.5 .NET Framework 3.5 Client Profile
Reference Paths	NET Framework 4 Client Profile

Press the "Yes" button in the opened window.



Target Fran	mework Change
?	Changing the Target Framework requires that the current project be closed and then reopened. Any unsaved changes within the project will be automatically saved. Changing Target Framework may require manual modification of project files in order to build. Are you sure you want to change the Target Framework for this project?
	Yes No Help

Open main form of the application in the editor by double click on the "Form1.cs" in the Solution Explorer.



Click "DataSet" element on the Toolbox and place it onto the form.



Select "Untyped dataset", click "OK".



The component is available in the lower part of the window.



Step 4

Select dataSet1 component in the form editor. On the property grid, select Tables property, click button 🗔 in order to open property editor.

Pro	perties	→ Ĥ	×
dat	aSet1 System.D	ata.DataSet	•
•	≵↓ 💷 🥖		
	Namespace		*
	Prefix		
	Relations	(Collection)	
	Tables	(Collection)	
4	Design	101	
	(Name)	dataSet1	
	GenerateMemb	True	=
	Modifiers	Private	-
4	Misc		
	EnforceConstrai	True	
	RemotingForma	Xml	-
Tal The this	bles e collection that l s DataSet.	holds the tables for	

Click "Add" to add a table. Set property TableName = Customers.

Tables Collection Editor					8
Members:		Cus	stomers Properties:		
0 Customers		۵	Data		
		⊳	(ApplicationSetting		
			Columns	(Collection)	
			Constraints	(Collection)	
			DisplayExpression		
			MinimumCapacity	50	
			Namespace		
			Prefix		
			PrimaryKey	DataColumn[]	
			TableName	Customers	
		۵	Design		
			(Name)	dataTable1	
	\mathbf{X}		GenerateMember	True	
			Modifiers	Private	
Add		⊿	Misc		

Select Columns property, click button $\overline{\square}$ in order to open property editor.

Tables Collection Editor					?	x
Members:		Cus	stomers Properties:			
0 Customers		۵	Data			*
		⊳	(ApplicationSetting			
			Columns	(Collection)		
			Constraints	(Collection)		
			DisplayExpression			
			MinimumCapacity	50		
			Namespace			=
			Prefix			
			PrimaryKey	DataColumn[]		
			TableName	Customers		
		۵	Design			
			(Name)	dataTable1		
	X		GenerateMember	True		
			Modifiers	Private		
Add		۵	Misc			-
					Close	

Click "Add" to add new column. Add four columns. Set ColumnName property to "CompanyName", "Address", "ContactName", "Phone".

olumns Collection Editor				2	
Members:		Pho	one Properties:		
0 Company Name		⊿	Data		
1 Address		⊳	(ApplicationSetting:		
2 Contact Name			AllowDBNull	True	
3 Phone			AutoIncrement	False	
			AutoIncrementSeed	0	
			AutoIncrementStep	1	
			Caption	Phone	
		(ColumnName	Phone	
			DataType	System.String	
			DateTimeMode	UnspecifiedLocal	L
			DefaultValue	<dbnull></dbnull>	
			Expression		
	×		MaxLength	-1	
			Namespace		
Add			Prefix		

Close the editors.

Step 6

6

Right click on the form and select "View Code" in the context menu to view code.

Form1.cs [Design]* ×			
E Form1			
	F	View Code	F7
	8	Lock Controls	N
	ß	Paste	Ctrl+V
	2	Properties	
	(

Add the following code to the class constructor to fill the data source.

```
DataRow row = dataTable1.NewRow();
row["CompanyName"] = "Alfreds Futterkiste";
row["Address"] = "Obere Str. 57";
row["ContactName"] = "Maria Anders";
row["Phone"] = "030-0074321";
dataTable1.Rows.Add(row);
row = dataTable1.NewRow();
row["CompanyName"] = "Ana Trujillo Emparedados y helados";
row["Address"] = "Avda. de la Constitución 2222";
row["ContactName"] = "Ana Trujillo";
row["Phone"] = "(5) 555-4729";
dataTable1.Rows.Add(row);
row = dataTable1.NewRow();
row["CompanyName"] = "Ernst Handel";
row["Address"] = "Kirchgasse 6";
row["ContactName"] = "Roland Mendel";
row["Phone"] = "7675-3425";
dataTable1.Rows.Add(row);
row = dataTable1.NewRow();
row["CompanyName"] = "Toms Spezialitäten";
row["Address"] = "Luisenstr. 48";
row["ContactName"] = "Karin Josephs";
row["Phone"] = "0251-031259";
dataTable1.Rows.Add(row);
```

}

Get back to the application form by clicking "Form1.cs[Design]" tab.

Form1.cs* ×	Form1.cs [Design]*			
✤ Header_Footer.Form1				
⊡using 9	System;			
using 9	System.Collections.G			
using S	System.ComponentMode			
using S	System.Data;			
using 9	System.Drawing;			
using 9	System.Lina:			

Click "ReportManager" element on the Toolbox and place the component onto the form. This component is designed to store collections of data sources and report templates.



The component is available in the lower part of the window.

避 dataSet1	reportManager1

Step 8

On the property grid, initialize the OwnerForm property of the ReportManager element by selecting the form it is located on.



Step 9

Double click on the ReportManager and open ReportManager editor.

Ref Form1	X			Y
	Report Data sources	2		
	 L.			
	Add Delete	Run Designer		
			OK Cance	el

Q

Go to the "Data sources" tab, click "Add", set name of the data source to "Customers", select data source value to "dataSet1.Customers".



Go to "Reports" tab, click "Add" and select "InlineReportSlot".

🖳 ReportManager editor		• X
Reports Data sources		
Add Delete Run Designer		
FileReportSlot		Canad
	OK	Cancel
UrlReportSlot		

Set name of the report in the property ReportName – "Header_Footer".

Click "Run Designer" to open template editor Report Designer.
6



Step 12

Create new empty template – select File\New from the main menu.



Select "Blank Report" in the Wizards Gallery and click "OK".

6	PE	RPETUUM software	www.perpetuumsoft.com			
		,				
		📴 Wizards Gall	ery			23
		New Saved				
		Blank Report				
		Standard Repo	ort			
		Pivot table Re	port			
				Load from file	ОК	Cancel

Click the "Properties" tab of the tool window in the right part of the designer.





Pro	perties	- † ×						
doo	um gt1 Docum	ent 🔹						
] ≵ ↓ 🖻							
4	Appearance							
⊳	GraphicsSettings	PerpetuumSoft.Reporting.						
	MasterReport							
	ShowObjectBour	True						
۵	Behaviour							
	DoublePass	False						
	InvalidRenderLer	ThrowException						
۵	Design							
	Name	document 1						
۵	Grid Settings							
	GridStep	0,5 cm						
	ShowGrid	True						
	SnapToGrid	True						
۵	Misc							
	DataSources	(Collection)						
	DeleteEmptyPage	False						
	Description	-						
	MetricUnit	Centimeter						
	Parameters	(Collection)						
	Title							
۵	Render							
	StyleSheet							
4	Script							
	CommonScript							
	CompilerVersion							
	CustomLanguage							
	GenerateScript							
	Imports							
	ScriptLanguage	VisualBasicNET						
Co Def Allo	mmonScript termines code of th ws you to declare Prope 🚘 Dat	e main script sections. global script variables a aSo () Document						
:								

Set property ScriptLanguage = CSharp.



Press "DataBand" button on the Insert tab in the group Container.



Click on the template area to add DataBand band.

Set data source in the property DataSource = Customers.

Pro	perties	•	Ψ×								
dat	dataBand1 DataBand										
•)≵↓ 🔲 ª₃										
۵	Appearance										
	StyleName										
	ToolTip										
۵	Data										
	Data Source	Customers	-								
	FilterExpression										
	InstanceCount	0									
	Sort	(Collection)									
	Tag										
	Totals	(Collection)									

Step 15

Press "Header" button on the Insert tab in the group Container.



Click on the DataBand area to add Header band inside the DataBand.

Set property RepeatEveryPage to "True".



Press button "TextBox" on the Insert tab in the group Text.



Click on the Header band area to TextBox inside Header. In the same way add another three TextBox elements. Double click on the TextBox to open Text editor – editor of the Text property. Set Text property to: "Company", "Address", "Contact", and "Phone".

eader1:Heade	· · · · · · · · · · · · · · · · · · ·			• • • • •	
	Company	Address	Contact	Phone	
		🕎 Text Ec	litor	22	•
nd of dataBan	d1	Phone		^	
			T		
				-	



Press "Detail" button on the Insert tab in the group Container.

File	Home	Insert	Layout Vi	ew						
	PageHeade	r T	TextBox	×	<u> S</u> hape	ChartControl	{ <mark>≡</mark> DataBand	SideBySide	Header	📒 SubReport
New	PageOverlag	y T	AdvancedText	Picture	✓ZipCode	🛃 Widget	CroupBand	🖶 CrossBand	😑 Detail 📐	🗲 Content
Page	PageFooter	RTF	RichText		BarCode	WinFormsControl	{ BandContainer		Footer	PivotTable
	Page		Text		Illust	ration		Containe	er	

Click on the DataBand area to add the Detail band inside DataBand.

dataBand1:Dat	aBand DataSource = Customer	s		
header1:Heade	r			
	Company	Address	Contact	Phone
detail1:Detail				
end of dataBa	1d1			

Step 18

Go to "DataSources" tab.





Drag and drop fields "CompanyName", "Address", "ContactName", "Phone" from the dataBand1 to the detail1 band. As a result TextBox elements will be created. Script loading data from the data source will be added to the Value property.

Change size of the elements and locate them in the following way:

			Propertie	s Data sources	Document tree
dataBand1:DataBand DataSource = Customers			Bands	Data Sources	
header1:Header			⊡. dat	aBand1	
Company Address	Contact Phone			Address CompanyName ContactName	
detail1:Detail			-	Dataltem Livetlensker	
<pre></pre>	<databand1 ontactName"]> <databand1["phone"< td=""><td>></td><td></td><th>Phone ecial Fields</th><td></td></databand1["phone"<></databand1 	>		Phone ecial Fields	
end of dataBand1					

Press "Footer" button on the Insert tab in the group Container.

File	Home	Insert	Layout Vie	ew					_	
	PageHeade	er T	TextBox	×	<u> S</u> hape	ChartControl	{ ⊟ DataBand	SideBySide	Header	SubReport
New	PageOverla	ay 🔳	AdvancedText	Picture	✓ZipCode	🥵 Widget	GroupBand	🖶 CrossBand	💻 Detail	🗲 Content
Page [PageFoote	r RTF	RichText	T Tettare	BarCode	WinFormsControl	{🔳 BandContainer		Footer	∑ PivotTable
	Page		Text		Illust	ration		Containe	er bo	

Click on the DataBand area to add Footer inside the DataBand.

Step 20

Press Shift key and select all TextBox elements from the Header. Open context menu by right click on any of the selected elements and select "Copy Objects".

dataBand1:DataBand DataSource = Customers					
header1:Header	0	0	•		
Company	Address	Contact		Cut Objects	1
detail1:Detail	0	•	E	🚡 Copy Objects 💦 💦	JF
<databand1< td=""><td><databand1< td=""><td><databand1< td=""><td></td><td>Paste Objects</td><td>2</td></databand1<></td></databand1<></td></databand1<>	<databand1< td=""><td><databand1< td=""><td></td><td>Paste Objects</td><td>2</td></databand1<></td></databand1<>	<databand1< td=""><td></td><td>Paste Objects</td><td>2</td></databand1<>		Paste Objects	2
["CompanyName"]>	["Address"]>	["ContactName"]>		Delete Objects Ctrl+D	Cop
footer1:Footer				Edit	F
			<pre></pre>	🖋 Clean	Г
				Arrange 🕨	
end of dataBand1			4	StyleName	
				Style 🕨	
				Render 🕨	
				Show Properties	

Select Footer band, open context menu by right click on the Footer band, select "Paste Objects".

Report template should look in the following way:

dataBan	11:DataBand DataSource = Customers			
header1:	Header			
	Company	Address	Contact	Phone
detail1:D	etail			
	<databand1 ["CompanyName"]></databand1 	<databand1 ["Address"]></databand1 	<databand1 ["ContactName"]></databand1 	<databand1["phone"]></databand1["phone"]>
footer1:F	ooter			
	Company	Address	Contact	Phone
end of da	taBand1			

Step 21

Save template, close Report Designer.



Add code to display report to the class constructor. Write RenderComplited event handler of the InlineReportSlot object.

```
public Form1()
      {
            InitializeComponent();
            DataRow row = dataTable1.NewRow();
            row["CompanyName"] = "Alfreds Futterkiste";
            row["Address"] = "Obere Str. 57";
            row["ContactName"] = "Maria Anders";
            row["Phone"] = "030-0074321";
            dataTable1.Rows.Add(row);
            row = dataTable1.NewRow();
            row["CompanyName"] = "Ana Trujillo Emparedados y helados";
            row["Address"] = "Avda. de la Constitución 2222";
            row["ContactName"] = "Ana Trujillo";
            row["Phone"] = "(5) 555-4729";
            dataTable1.Rows.Add(row);
            row = dataTable1.NewRow();
            row["CompanyName"] = "Ernst Handel";
            row["Address"] = "Kirchgasse 6";
            row["ContactName"] = "Roland Mendel";
            row["Phone"] = "7675-3425";
            dataTable1.Rows.Add(row);
            row = dataTable1.NewRow();
            row["CompanyName"] = "Toms Spezialitäten";
            row["Address"] = "Luisenstr. 48";
            row["ContactName"] = "Karin Josephs";
            row["Phone"] = "0251-031259";
            dataTable1.Rows.Add(row);
            inlineReportSlot1.RenderCompleted += new
EventHandler(reportSlot RenderCompleted);
        }
        private void reportSlot RenderCompleted (object sender, EventArgs e)
        {
            using (PerpetuumSoft.Reporting.View.PreviewForm previewForm = new
PerpetuumSoft.Reporting.View.PreviewForm(inlineReportSlot1))
            {
                previewForm.WindowState = FormWindowState.Maximized;
                previewForm.ShowDialog(this);
            }
        }
```

Step 23

Place two buttons onto the form (drag and drop "Button" element from the Toolbox onto the form).



Select Button on the form, edit Text property on the property grid. Set Text = Template for one button and Text = Report for the second one.

Pro	perties	→ Ĥ	×	Pro	perties		γΨ×	
but	t ton1 System.Wi	ndows.Forms.Buttc	-	button2 System.Windows.Forms.Butt				
•	≵↓ 🔳 🥖				≵↓ 🔲 🖋			
	ImageIndex	(none)	^		ImageIndex	(none)	*	
	ImageKey	(none)			ImageKey	(none)		
	ImageList	(none)			ImageList	(none)		
_	RightToLeft	No			RightToLeft	No		
C	Text	Template 📋 👻	F	0	Text	Report]	-)	
	TextAlign	MiddleCenter			TextAlign	MiddleCenter		
	TextImageRelati	Overlay			TextImageRelati	Overlay		
	UseMnemonic	True			UseMnemonic	True		
	UseVisualStyleB	True			UseVisualStyleB	True		
	UseWaitCursor	False			UseWaitCursor	False		

Create Click event handlers for the buttons – double click on the Button element on the form. Add code launching report generation to the event handler. For example, use the following code:

```
private void button1_Click(object sender, EventArgs e)
{
    inlineReportSlot1.DesignTemplate();
}
private void button2_Click(object sender, EventArgs e)
{
    inlineReportSlot1.Prepare();
}
```

Step 24

Click "Start Debugging" on the Visual Studio toolbar in order to run application.

File	Edit	View	Refactor	Project	Build	Debug	Team	Data	Tools	Test	Window	Help	
16	-	- 🞽	🖬 🥥)	6 🗈 🛍	9	(° - 4	- -		Debug		- 🛛 🌁		- 🖂 🛃 🖄 🏷 🛃 💶 - 🖕
1	- 🗟 🎙	L_ A≳	1 🗐 👘 🕯		2 🗆	, in G	şa 🗛 🗸	2.3	-, ,				

Click the "Report" button in the opened application window.



Generated report will open with Report Viewer.

👌 documer	nt1 - Preview report		No. of Concession, Name of Street, or other		
File Vie	w Navigate Document Help		2.0		
			3 0		^
	Company	Address	Contact	Phone	
1					
	Alfreds Futterkiste	Obere Str. 57	Maria Anders	030-0074321	
		Avda da la			
	Emparedades y bolad	Constitución 2222	Ana Trujillo	(5) 555-4729	-
	Emparedados y helad	Constitución 2222			
	Ernst Handel	Kirchgasse 6	Roland Mendel	7675-3425	
		-			
	Toms Spezialitäten	Luisenstr. 48	Karin Josephs	0251-031259	
	Company	Address	Contact	Phone	

In order to edit template, close Report Viewer and press "Template" on the application form.



Similar application sample is located in the following folder "Samples\Report Sharp-Shooter\CSharp\Simple List".

Similar sample in the Samples Center is Reports\Simple Reports\List.



Page Size, Multipage Template

Template of a report containing two pages of different size. Each page contains information on page number and size.

Step 1

Create new project in Microsoft Visual Studio. Select New\Project from the main menu.



Select Windows Forms Application, set project name – "Page", set directory to save the project to.

New Project					? <mark>×</mark>
Recent Templates		.NET Fra	mework 4 🔹 Sort by: Default		Search Installed Templates
Installed Templates Visual C#		 ¢#	Windows Forms Application	Visual C#	Type: Visual C# A project for creating an application with a
Windows Web		**	WPF Application	Visual C#	Windows Forms user interface
▷ Office Cloud Reporting		en E G \$	Console Application	Visual C#	
 SharePoint Silverlight 		rc#	Class Library	Visual C#	
Test WCF		[∞] c≭	WPF Browser Application	Visual C#	
Workflow Other Languages		C≇	Empty Project	Visual C#	
 Other Project Type Database Test Projects 	es	_ c#	Windows Service	Visual C#	
Online Templates		•••	WPF Custom Control Library	Visual C#	
		₹ ^{CP}	WPF User Control Library	Visual C#	
		<mark>,</mark> c≉	Windows Forms Control Library	Visual C#	
Name:	Page				
Location:	c:/		\documents\visual studio 2010\Projects	•	Browse
Solution name:	Page			Create directory for solutionAdd to source control	
					OK Cancel

Change the project properties. Select the Project\Page Properties... item in the main menu.

🗙 Page - Microsoft Visual Studio (Administrator)											
File	E	dit	View	Proje	ect	Build	Debug	Team	Data	Format	Tools
1	-	•	- 🖻	1	Ad	ld Wind	ows Form	ı			
1		ļ₽.	후 릐		Ad	ld User (Control				
-	-			B)	Ad	ld Com	ponent				
릠	۲o	rm1.	cs [Des	9 3	Ad	ld Class.				Shift+A	lt+C
)ata S	Ĩ		_	8::	Add New Item				Ctrl+Shift+A		
Sourc			Form1	:::	Add Existing Item				Shift+Alt+A		
0 • •					Exe	clude Fr	om Proje	ct			
÷.				ð	Show All Files						
oolb					Ad	ld Refer	ence				
×		Add Service Reference									
					Set as StartUp Project						
				44	Re	fresh Pr	oject Too	lbox Iten	ns		
					Pa	ge Prop	erties				
				_	_				6	5	

Select the Target framework\.NET Framework4 item in the Application tab.

Application	Configuration: N/A
Build	
Build Events	Assembly name:
	SimpleReport
Debug	Target framework:
Resources	.NET Framework 4 Client Profile
Services	.NET Framework 2.0 .NET Framework 3.0
Settings	.NET Framework 3.5 NET Framework 3.5 Client Profile
Reference Paths	.NET Framework 4 Client Profile

Press the "Yes" button in the opened window.



Target Fran	mework Change
?	Changing the Target Framework requires that the current project be closed and then reopened. Any unsaved changes within the project will be automatically saved. Changing Target Framework may require manual modification of project files in order to build. Are you sure you want to change the Target Framework for this project?
	Yes No Help

Open main form of the application by double click on the "Form1.cs" in the Solution Explorer.



Click on the "ReportManager" on the Toolbox and place this component onto the form. This component is designed to store collections of report templates and data sources.



The component is available in the lower part of the window.



On the property grid, initialize OwnerForm property of the ReportManager by selecting the form it is located on.



Step 5

Double click on ReportManager to open ReportManager editor.

Form1.cs [Design]* ×				
	ReportManager edito	or		
	Reports Data sources			
			Z *	
	Add Dele	ete Run Designer		
	FileReportSlot			OK Cancel
	UrlReportSlot			

On the "Reports" tab click "Add" and select "InlineReportSlot".

Step 6

Set name of the report in the property ReportName – "Page".

Click "Run Designer" to open template editor Report Designer.



Create new empty report – select File\New from the main menu.



Select "Blank Report" in the Wizards Gallery and click "OK".

•	PERPETUUM software	www.perpetuumsoft.com			
	📴 Wizards Gall	ery			
	New Saved				
	Blank Report				
	Standard Repo	ort			
	Pivot table Re	port			
			Load from file	ОК	Cancel

23

Step 8

Click the "Properties" tab of the tool window in the right part of the designer.





Pro	perties	→ Å ×					
docum gt1 Document							
]⊉↓ 🖻						
4	Appearance						
⊳	GraphicsSettings	PerpetuumSoft.Reporting.					
	MasterReport						
	ShowObjectBour	True					
۵	Behaviour						
	DoublePass	False					
	InvalidRenderLer	ThrowException					
۵	Design						
	Name	document 1					
4	Grid Settings						
	GridStep	0,5 cm					
	ShowGrid	True					
	SnapToGrid	True					
۵	Misc						
	DataSources	(Collection)					
	Delete EmptyPage	False					
	Description						
	MetricUnit	Centimeter					
	Parameters	(Collection)					
	Title						
4	Render						
	StyleSheet						
4	Script						
	CommonScript						
	CompilerVersion						
	CustomLanguage						
	GenerateScript						
	Imports						
	ScriptLanguage	VisualBasicNET					
CommonScript Determines code of the main script sections. Allows you to declare global script variables a							
***	riope	Boom Document					

Set property ScriptLanguage = CSharp.



Press the 🖃 button in Properties. Select the "page1 Page" item in the combo box.

Properties	- ₽ X					
document1 Document						
document1 Document						
page1 Page						
GraphicsSettings PerpetuumS	Soft.Reporting.[

You will see properties of the edited page in the "Properties" tab of Tool Window in the right part of the designer.



Set the PaperKind = Custom property. Click the \triangleright button which is located to the left from CustomSize and set X = 10 cm; Y = 7 cm.

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To make the report template preview more convenient, change zoom in the toolbar. Set value to "150%".

			۵	Design	
De Zoom	53			Name	page1
20011			⊿	Layout	
Zoom			⊳	Location	0; 0 cm
20011			⊳	Size	10; 7 cm
200%			۵	Misc	
100%				IsCrossPage	False
0 100%			۵	Navigation	
0 75%				Bookmark	
@ F00/				Hyperlink	
0 50%			4	Page Settings	10.7
0 25%			4	CustomSize	10; / cm
				~	
page width				Marrine	1 · 1 2 · 1 5 · 1
whole page			V	Orientation	Portrait
				PaperKind	Custom
💽 custom	0 %		⊳	TemplateSize	10:7 cm
OK	Cancel		۵	Render	
	Cancer			Visible	True
			 ۵	Script	
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				ManualBuildScrip	1
			v		
			V.	limetion	
			1.0	liection	
			200	Denne Denne	-C- III D-

G

Click the \triangleright button. That is located to the left from the Margins property, set all values to "0".

⊿	Page Settings	
\triangleright	CustomSize	10; 7 cm
F	Margins	0; 0; 0; 0 cm
K.	Bottom	0 cm
2	Left	0 cm
	Right	0 cm
L	Тор	0 cm
	Orientation	Portrait
	PaperKind	Custom
\triangleright	TemplateSize	10; 7 cm

Step 11

Press the "TextBox" button in the Insert tab in the group Text.

Click on the template area to add the TextBox element.

Click the "Script Browser" button in the Home tab in the group Scripts.

File	Home	Insert	Layout	t View	Format						
Paste Obje	cts 🔏 C C 🔭 C	ut Objects opy Objects elete Objec	s B	IU	· A A A	· Ac	EEE EEE	Fill Border Margin	No Style	÷ A Edit Style	Script Browser Check Script
	Clipboar	d		Fo	nt	Es.	Alignment	Appearance	Styles	Gr.	Scripts

Right-click on TextBox1 in the DocumentTree. Select Bindings\Value in appeared context menu.



In the opened window, write the following code:

"Page №" + PageNumber.ToString() + " of " + PageCount.ToString() + ". 10x7 cm".

Click the "Save all" button and close the Script Browser.

Step 12

Press the "NewPage" button in the Insert tab in the group Page to add a new template.



To switch between pages use tabs in the left lower corner.



Step 13

Go to properties of the page2. Set properties PaperKind = A5, Orientation = Landscape.

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Step 14

Add the TextBox element to page2. Open Script Browser. Right click on the TextBox2 item in the DocumeentTree. Select Bindings\Value in the appeared context menu. Add the following script in the opened window: "Page №" + PageNumber.ToString() + " of " + PageCount.ToString() + ". A5, Landscape."+ "Page2, zoom 100%".

Press the "Save all" button and close Script Browser.



Save the template, close Report Designer.

Step 16

Right click on the form and select "View Code" in the context menu to view code.

Form1.cs [Design]* ×			
- Form1		- • •	
	F	View Code	F7
	8	Lock Controls	NS
	Ē.	Paste	Ctrl+V
	3	Properties	
	_		
	.		



To display the report, add the code to the class constructor. Write the RenderComplited event handler of the InlineReportSlot object.

```
public Form1()
{
    InitializeComponent();
    inlineReportSlot1.RenderCompleted += new
EventHandler(reportSlot_RenderCompleted);
    private void reportSlot_RenderCompleted(object sender, EventArgs e)
    {
        using (PerpetuumSoft.Reporting.View.PreviewForm previewForm = new
PerpetuumSoft.Reporting.View.PreviewForm(inlineReportSlot1))
        {
            previewForm.WindowState = FormWindowState.Maximized;
            previewForm.ShowDialog(this);
        }
    }
}
```

Step 17

Get back to the application form by clicking the "Form1.cs[Design]" tab.



Add two buttons onto the form (drag and drop the "Button" element from the Toolbox onto the form).



Select the Button element in the form, edit the Text property in the property grid. Set Text = Template for the first button and Text = Report for the second one.

PE	RPETUU softwa	M www re	v.perpetuumsof	t.com						
										1.24
	Properties			Ψ×	Prop	perties				łΧ
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	8≣ 2↓ 💷	9	2			≵↓ 🔳 🖋	65			
	ImageIn	dex [(none)	~		ImageIndex		(none)		
	ImageKe	y [(none)			ImageKey		(none)		
	ImageLis	st ((none)			ImageList	(no	ne)		
	RightTol	.eft	No			RightToLeft	No			
	Text		Template	-)	C	Text	Rep	oort]		
	TextAlig	n l	MiddleCenter			TextAlign	Mid	IdleCent	er	
	TextImag	geRelati (Overlay			TextImageRela	ti Ove	erlay		
	UseMne	monic	True			UseMnemonic	Tru	e		
	UseVisua	IStyleB.	True			UseVisualStyle	3 Tru	e		
	UseWait	Cursor	False			UseWaitCursor	Fals	e		
	PE	PERPETUU softwa	PERPETUUM software	PERPETUUM software Properties button1 System.Windows.Forms.E button1 System.Windows.Forms.E DimageIndex (none) ImageList (none) ImageList (none) ImageList (none) ImageList (none) ImageList (none) Text Template TextAlign MiddleCenter TextAlign MiddleCenter TextImageRelati Overlay UseMnemonic True UseVisualStyleB True UseWaitCursor False	Properties Properties button1 System.Windows.Forms.Buttc Description Descrip	Properties Properties button1 System.Windows.Forms.Buttc button1 System.Windows.Forms.Buttc imageIndex ImageIndex ImageIndex ImageList (none) ImageList (none) RightToLeft No Text TextAlign MiddleCenter TextAlign MiddleCenter TextImageRelati Overlay UseWisualStyleB True UseWaitCursor False	Properties ImageIndex ImageIndex <th>Properties button1 System.Windows.Forms.Buttc</th> <th>Properties Properties button1 System.Windows.Forms.Buttc ImageIndex (none) ImageIndex (none) ImageList (none) ViseMnemonic True UseVisualStyleB True UseWaitCursor False</th> <th>Properties Properties button1 System.Windows.Forms.Buttc Difference ImageIndex ImageIndex ImageIndex ImageList ImageList ImageList ImageRelati Overlay UseMnemonic True UseWaitCursor</th>	Properties button1 System.Windows.Forms.Buttc	Properties Properties button1 System.Windows.Forms.Buttc ImageIndex (none) ImageIndex (none) ImageList (none) ViseMnemonic True UseVisualStyleB True UseWaitCursor False	Properties Properties button1 System.Windows.Forms.Buttc Difference ImageIndex ImageIndex ImageIndex ImageList ImageList ImageList ImageRelati Overlay UseMnemonic True UseWaitCursor

Create the Click event handlers for the buttons – double click on the Button element in the form. Add code for report generation to the event handler. For example, use the following code:

```
private void button1_Click(object sender, EventArgs e)
{
    inlineReportSlot1.DesignTemplate();
}
private void button2_Click(object sender, EventArgs e)
{
    inlineReportSlot1.Prepare();
}
```

Step 18

Click "Start Debugging" in the Visual Studio toolbar in order to run application.



Click the "Report" button in the opened application window.

- Form1	
Template F	Report
	_

The generated report can be opened with Report Viewer.



Fil Ver Neiget Doumert Hep Page №1 of 1. 10x7 cm Page №2 of 2. A5, Landscape.Page2, zoom 100%	of document1 - Preview report		×
Page №1 of 1. 10x7 cm Page №2 of 2. A5, Landscape.Page2, zoom 100%	File View Navigate Document Help		
Page №1 of 1. 10x7 cm Page №2 of 2. A5, Landscape.Page2, zoom 100%	🖶 🛀 💾 🕽 I 🖬 🚜 🗟 🔝 🕐 🍳 🔍 🥰 I 🛅	158 % 🔹 🗋 🔚 🕇 🕇 🤳 🛣 🎯	 _
Page №2 of 2. A5, Landscape.Page2, zoom 100%		Page №1 of 1. 10x7 cm	
	Page	№2 of 2. A5, Landscape.Page2, zoom 100%	
K			
	4		

In order to edit the template, close Report Viewer and press "Template" in the application form.



Similar sample can be found in the Samples Center: Reports\Special features\The use of two pages template.



Breaking Text into Pages

Template of a report containing breaking long text into pages.

Step 1

Create new project in Microsoft Visual Studio. Select New\Project from the main menu.



Select Windows Forms Application, set project name – "Text", set directory to save the project to.

New Project					2 - X
Recent Templates		.NET Fra	mework 4 🔹 Sort by: Default	- II II	Search Installed Templates
Installed Templates Visual C#			Windows Forms Application	Visual C#	Type: Visual C# A project for creating an application with a
Windows Web		*	WPF Application	Visual C#	Windows Forms user interface
Office Cloud		с: Есі	Console Application	Visual C#	
Reporting SharePoint Silverlight		rc≉	Class Library	Visual C#	
Test WCF		[∞] c≉	WPF Browser Application	Visual C#	
Workflow ▷ Other Languages		C#	Empty Project	Visual C#	
 Other Project Type Database 	25	_ c [#]	Windows Service	Visual C#	
 Test Projects Online Templates 		•**	WPF Custom Control Library	Visual C#	
		₹C	WPF User Control Library	Visual C#	
		≣c‡	Windows Forms Control Library	Visual C#	
Name:	rext		\documents\visual studio 2010\Projecto		Browce
Solution name:	Text		/aocuments/visual studio 2010/P/OJECTS	Create directory for solution Add to source control	
					OK Cancel

5

Change the project properties. Select the Project\Text Properties... item in the main menu.

File	e 1	Edit View	Proje	ct	Build	Debug	Team	Data	Format	Tools	
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1	ц I	[ê 옥 릐]	1	Add User Control							
			1	Ad	ld Comp	onent					
	FC	orm1.cs [Des	23	Add Class					Shift+Alt+C		
ata S		(<u>.</u>	80	Ad	d New I	tem			Ctrl+Shi	ft+A	
ourc	Form1			Add Existing Item					Shift+Alt+A		
Ċ.				Exc	clude Fro	om Projec	t				
×				Sh	ow All F	iles					
alloo				Ad	d Refere	ence					
X				Ad	d Servic	e Referen	ce				
				Set	t as Start	tUp Proje	ct				
			47	Re	fresh Pro	oject Too	lbox Item	ıs			
				Te	xt Prope	rties	L	2			

Select the Target framework\.NET Framework4 item in the Application tab.

Application	Configuration: N/A						
Build							
Build Events	Assembly name:						
Duna Events	SimpleReport						
Debug	Target framework:						
Resources	.NET Framework 4 Client Profile 🔹						
Services	.NET Framework 2.0 .NET Framework 3.0						
Settings	.NET Framework 3.5 .NET Framework 3.5 Client Profile						
Reference Paths	.NET Framework 4 .NET Framework 4 Client Profile Install other frameworks						

Press the "Yes" button in the opened window.



Target Fran	nework Change
?	Changing the Target Framework requires that the current project be closed and then reopened. Any unsaved changes within the project will be automatically saved. Changing Target Framework may require manual modification of project files in order to build. Are you sure you want to change the Target Framework for this project?
	Yes No Help

Open main form of the application by double click on the "Form1.cs" in the Solution Explorer.



Click on the "ReportManager" on the Toolbox and place this component onto the form. This component is designed to store collections of report templates and data sources.



The component is available in the lower part of the window.



On the property grid, initialize OwnerForm property of the ReportManager by selecting the form it is located on.



Step 5

Double click on ReportManager to open ReportManager editor.

Form1.cs [Design]* ×		ſ			
		L.			
	ReportManager e	editor			
	Reports Data source	es			
			i ž i l		
	Add	ot Run Designer			
		tSlot		ОК	Cancel
	Uniceportaic				

Go to "Reports tab", click "Add" and select "InlineReportSlot".

Step 6

Set name of the report in the property ReportName – "Text".

Click "Run Designer" in order to open template editor – Report Designer.



Create new empty report – select File\New from the main menu.



Select "Blank Report" in the Wizards Gallery and click "OK".

•	PERPETUUM software	www.perpetuumsoft.com			
	📴 Wizards Gall	ery			
	New Saved				
	Blank Report				
	Standard Repo	ort			
	Pivot table Re	port			
			Load from file	ОК	Cancel

23

Step 8

Click the "Properties" tab of the tool window in the right part of the designer.




Pro	perties	- † ×
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]⊉↓ 🖻	
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⊳	GraphicsSettings	PerpetuumSoft.Reporting.
	MasterReport	
	ShowObjectBour	True
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۵	Design	
	Name	document 1
4	Grid Settings	
	GridStep	0,5 cm
	ShowGrid	True
	SnapToGrid	True
۵	Misc	
	DataSources	(Collection)
	DeleteEmptyPage	False
	Description	
	MetricUnit	Centimeter
	Parameters	(Collection)
	Title	
۵	Render	
	StyleSheet	
۵	Script	
	CommonScript	
	CompilerVersion	
	CustomLanguage	
	GenerateScript	
	Imports	
	ScriptLanguage	VisualBasicNET
Со	mmonScript	
Allo	ermines code of the ws you to declare	global script variables a
2	Prope 🔚 Dat	aSo 📄 Document

Set property ScriptLanguage = CSharp.



Press "Detail" button on the Insert tab in the group Container.

File Hom	e Insert	Layout Vie	ew					_	_
New Page Page Page Page Page	eader T verlay T poter RT	TextBox AdvancedText RichText Text	Picture	Shape ZipCode BarCode Illust	ChartControl ChartControl Widget WinFormsControl ration	E DataBand CroupBand E BandContainer	SideBySide	Header Detail	SubReport Content PivotTable

Click on the template area to add Detail band to the template. Set CanGrow and CanBreak properties to "True".



Step 10

Press button "AdvancedText" on the Insert tab in the group Text.



Click on the Detail band area to add AdvancedText element inside the Detail. Dragging the right border of the element make it fit page width. Double click on the AdvancedText band and open Formatted text editor.

Click "Open RTF document" button. Select RTF file containing some text.

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•	Formatted Text Editor			- 23
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	;in the Wizards gallery and click "OK". </td <td></td> <td>ial Fields</td> <td></td>		ial Fields	
	True".font face="Cambria" size="13" cplor="#4F81BD"> Step&nb			
	-			
			OK	Cancel

On the property grid set CanBreak and CanGrow properties to "True".

		advancedText1 Ad	lvancedText
tail		📰 🏄 🔲 P3	
		Appearance	
Step 1		Angle	0
Create new project in Microsoft Visual Studio. Select New\Project from the main menu.		Border	
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		RightToLeft	False
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		ToolTip	
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		Name	advancedText1
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		⊿ Render	
		CanBreak	True
		CanGrow	True
		CanShrink	False
		GrowToBottom	False
		Visible	True
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		Generate Scrint	

Step 11

Save report and close Report Designer.

Step 12

Right click on the form and select "View Code" in the context menu in order to view code.

Per Forml			
		View Code	F7
	۵.	Lock Controls	13
		Paste	Ctrl+V
	P	Properties	

Add code to display report to the class constructor. Write RenderComplited event handler of the InlineReportSlot object.

```
public Form1()
{
    InitializeComponent();
    inlineReportSlot1.RenderCompleted += new
EventHandler(reportSlot_RenderCompleted);
    }
    private void reportSlot_RenderCompleted(object sender, EventArgs e)
    {
        using (PerpetuumSoft.Reporting.View.PreviewForm previewForm = new
PerpetuumSoft.Reporting.View.PreviewForm(inlineReportSlot1))
        {
            previewForm.WindowState = FormWindowState.Maximized;
            previewForm.ShowDialog(this);
        }
    }
}
```

Step 13

Go to the application form by clicking the "Form1.cs[Design]" tab.

Form1.cs ×	Form1.cs [Design]
🔩 Text.Form	1
⊡using	System;
using	System.Collectior
using	System.ComponentN
using	System.Data;

Place two buttons onto the form (drag and drop "Button" element from the Toolbox onto the form).



Select Button on the form, edit Text property on the property grid. Set Text = Template for one button and Text = Report for the second one.

Pro	perties	→ Ĥ	×	Pro	perties		γų×
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C	Text	Template 📋 👻	F	0	Text	Report]	-)
	TextAlign	MiddleCenter			TextAlign	MiddleCenter	
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	UseMnemonic	True			UseMnemonic	True	
	UseVisualStyleB	True			UseVisualStyleB	True	
	UseWaitCursor	False			UseWaitCursor	False	

Create Click event handlers for the buttons – double click on the Button element on the form. Add code launching report generation to the event handler. For example, use the following code:

```
private void button1_Click(object sender, EventArgs e)
{
    inlineReportSlot1.DesignTemplate();
}
private void button2_Click(object sender, EventArgs e)
{
    inlineReportSlot1.Prepare();
}
```

Step 14

Click "Start Debugging" on the Visual Studio toolbar in order to run application.

File	Edit	View	Refactor	Project	Build	Debug	Team	Data	Tools	Test	Window	Help	
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Click the "Report" button in the opened application window.



Generated report will open with Report Viewer.



In order to edit template, close Report Viewer and press "Template" on the application form.





Watermark

Template of a report containing main data that is located over the additional information – product logo and name.

Step 1

Create new project in Microsoft Visual Studio. Select New\Project from the main menu.



Select Windows Forms Application, set project name – "Watermark", set directory to save the project to.

New Project					2 ×
Recent Templates		.NET Fra	amework 4 🔹 Sort by: Default	• III 🛄	Search Installed Templates
Installed Templates ▲ Visual C#		_c ≉	Windows Forms Application	Visual C#	Type: Visual C# A project for creating an application with a
Windows Web		*	WPF Application	Visual C#	Windows Forms user interface
▷ Office Cloud Reporting			Console Application	Visual C#	
 SharePoint Silverlight 		r c♯	Class Library	Visual C#	
Test WCF		<mark>°°</mark> C≉	WPF Browser Application	Visual C#	
Workflow ▷ Other Languages		C♯	Empty Project	Visual C#	
 Other Project Typ Database 	es	_ c [#]	Windows Service	Visual C#	
 Test Projects Online Templates 		€C #	WPF Custom Control Library	Visual C#	
		• C#	WPF User Control Library	Visual C#	
		<mark>≣</mark> C‡	Windows Forms Control Library	Visual C#	
Name:	Watermark				
Location:	c:\		\documents\visual studio 2010\Projects	•	Browse
Solution name:	Watermark				Create directory for solution
					Add to source control
					OK Cancel

Change the project properties. Select the Project $\$ main menu.

00 V	Vat	erma	ark - Mi	crosof	ft Vi	sual Stu	idio (Adm	inistrato	r)				
File	E	Edit	View	Proje	ect	Build	Debug	Team	Data	Format	Tools		
16] -	-	- 💕		🛅 🛛 Add Windows Form								
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ata S				8::	Ad	ld New I	item			Ctrl+Shi	ift+A		
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Select the Target framework\.NET Framework4 item in the Application tab.

Application	Configuration: N/A
Build	
Build Events	Assembly name:
Dulla Events	SimpleReport
Debug	Target framework:
Resources	.NET Framework 4 Client Profile
Services	.NET Framework 2.0 .NET Framework 3.0
Settings	.NET Framework 3.5 .NET Framework 3.5 Client Profile
Reference Paths	.NET Framework 4 .NET Framework 4 Client Profile Install other frameworks

Press the "Yes" button in the opened window.



Target Fran	nework Change
?	Changing the Target Framework requires that the current project be closed and then reopened. Any unsaved changes within the project will be automatically saved. Changing Target Framework may require manual modification of project files in order to build. Are you sure you want to change the Target Framework for this project?
	Yes No Help

Open main form of the application by double click on the "Form1.cs" in the Solution Explorer.



Click on the "ReportManager" on the Toolbox and place this component onto the form. This component is designed to store collections of report templates and data sources.



The component is available in the lower part of the window.



On the property grid, initialize OwnerForm property of the ReportManager by selecting the form it is located on.



Step 5

Double click on ReportManager to open ReportManager editor.

Form1.cs [Design]* ×		
ng Form1		
	- ReportManager editor	
	Reports Data sources	
	Add Delete Run Designer	
	FileReportSlot	
		OK Cancel
	UrlReportSlot	

Go to "Reports tab", click "Add" and select "InlineReportSlot".

Step 6

Set name of the report in the property ReportName – "Watermark".

Click "Run Designer" in order to open template editor - Report Designer.



	Report Name
Add Delete Run Designer	OK Cancel

Create new empty report – select File\New from the main menu.



Select "Blank Report" in the Wizards Gallery and click "OK".

•	PERPETUUM software	www.perpetuumsoft.com			
	📴 Wizards Gal	ery			
	New Saved				
	Blank Report				
	Standard Rep	ort			
	Pivot table Re	port			
			Load from file	ОК	Cancel
	<u></u>				

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Step 8

Click the "Properties" tab of the tool window in the right part of the designer.





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۵	Appearance	
⊳	GraphicsSettings	PerpetuumSoft.Reporting.
	MasterReport	
	ShowObjectBour	True
۵	Behaviour	
	DoublePass	False
	InvalidRenderLer	ThrowException
۵	Design	
	Name	document 1
۵	Grid Settings	
	GridStep	0,5 cm
	ShowGrid	True
	SnapToGrid	True
۵	Misc	
	DataSources	(Collection)
	DeleteEmptyPage	False
	Description	
	MetricUnit	Centimeter
	Parameters	(Collection)
	Title	
۵	Render	
	StyleSheet	
4	Script	
	CommonScript	
	CompilerVersion	
	CustomLanguage	
	GenerateScript	
	Imports	
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	Cariat	
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7	Prope 🚞 Dat	aSo 🔚 Document

Set property ScriptLanguage = CSharp.



Press "PageOverlay" button on the Insert tab in the group Page.



Click on the template area to add PageOverlay band.

Step 10

Press button "TextBox" on the Insert tab in the group Text.



Click on the PageOverlay band area to add TextBox inside PageOverlay.

Set property Text = REPORT SHARP-SHOOTER. Set property Font.Size = 48. Select TextFill property, click button select SolidFill, Color = Grey.

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											11		-	And	le	0			
											11			Bor	der				
									-		11			Clip	Text	False			
									_		11			Fill		[None]			
													⊿	For	t	Arial; 48pt			
															Bold	Default			
									-		11				FamilyName	Arial			
															Italic	Default	_	-	
															Size	48			
											11			_	Strikeout	Default		-	
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Change size of the PageOverlay band and the TextBox element so that the text is visible.





Press button "Picture" on the Insert tab in the group Illustration.



Click on the PageOverlay band area to add Picture element inside PageOverlay.

Double click on the Picture element to open dialog setting path to the picture. Select a picture and click "Open".

Set property SizeMode = Normal.

Pro	perties		•	џ	×			
pict	picture1 Picture							
	📰 ≵↓ 🔲 ▫ੋ । 📼							
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	Angle	0						
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	Image	(none)						
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⊿	Design	L						
	Name	picture 1						
⊿	Layout							
\triangleright	Location	9,5; 5 cm						
\triangleright	Size	2; 1 cm						

Change size of the PageOverlay band and Picture element so that the picture is visible.





Save template, close Report Designer

Step 13

Right click on the form and select "View Code" in the context menu in order to view code.

Form1.cs [Design]* 🗙			
🖳 Form1			×
	F	View Code	F7
	8	Lock Controls	
	ß	Paste	Ctrl+V
	2	Properties	

Add code to display report to the class constructor. Write RenderComplited event handler of the InlineReportSlot object.

```
public Form1()
{
    InitializeComponent();
    inlineReportSlot1.RenderCompleted += new
EventHandler(reportSlot_RenderCompleted);
    private void reportSlot_RenderCompleted(object sender, EventArgs e)
    {
        using (PerpetuumSoft.Reporting.View.PreviewForm previewForm = new
PerpetuumSoft.Reporting.View.PreviewForm(inlineReportSlot1))
        {
            previewForm.WindowState = FormWindowState.Maximized;
            previewForm.ShowDialog(this);
        }
    }
}
```

Step 14

Get back to the application form by clicking the "Form1.cs[Design]" tab.



Place two buttons onto the form (drag and drop "Button" element from the Toolbox onto the form).



Select Button on the form, edit Text property on the property grid. Set Text = Template for one button and Text = Report for the second one.

tc 🔻
~

Create Click event handlers for the buttons – double click on the Button element on the form. Add code launching report generation to the event handler. For example, use the following code:

```
private void button1_Click(object sender, EventArgs e)
{
    inlineReportSlot1.DesignTemplate();
}
private void button2_Click(object sender, EventArgs e)
{
    inlineReportSlot1.Prepare();
}
```

Step 15

Click "Start Debugging" on the Visual Studio toolbar in order to run application.



Click the "Report" button in the opened application window.



Generated report will open with Report Viewer.



In order to edit template, close Report Viewer and press "Template" on the application form.





Similar sample in the Samples Center is Reports $\$



Master-Detail Report

Template of a report containing a list of customers and a list of orders for every customer.

Step 1

Create new project in Microsoft Visual Studio. Select New\Project from the main menu.



Select Windows Forms Application, set project name – "Detail", set directory to save the project to.

New Project					2 X
Recent Templates		.NET Fra	mework 4 🔹 Sort by: Default		Search Installed Templates
Installed Templates Visual C#		_ c#	Windows Forms Application	Visual C#	Type: Visual C# A project for creating an application with a
Windows Web		*	WPF Application	Visual C#	Windows Forms user interface
Cloud Reporting		EN E	Console Application	Visual C#	
 SharePoint Silverlight 		C#	Class Library	Visual C#	
Test WCF		[∞] c♯	WPF Browser Application	Visual C#	
Workflow Other Languages Other Desired Terror	_	C#	Empty Project	Visual C#	
 Other Project Type Database Test Projects 	5	≣ ¢#	Windows Service	Visual C#	
Online Templates		• • • •	WPF Custom Control Library	Visual C#	
		•Cr	WPF User Control Library	Visual C#	
		E CR	Windows Forms Control Library	Visual C#	
Name:	Detail				
Location:	c/	-	\documents\visual studio 2010\Projects	•	Browse
Solution name:	Detail				Create directory for solution
					OK Cancel

Change the project properties. Select the Project\Detail Properties... item in the main menu.

00 [Det	ail - I	Microso	ft Visu	ial S	Studio (/	Administr	ator)			
File	E	dit	View	Proje	ect	Build	Debug	Team	Data	Format	Tools
Fi 🛄 👯 📊 Tool	 - 	idit · ∰ I≓ •rm1	View • 🚰 홍 릨 .cs [Des Form1	Proje	Ad Ad Ad Ad Ad Ad Exc Sh	Build Id Wind Id User (Id Comp Id Class, Id New J Id Existin clude Fro ow All F	Debug ows Form Control oonent item ng Item om Projec iles	Team h	Data	Format Shift+Al Ctrl+Shi Shift+Al	Tools lt+C ift+A lt+A
lbox				+7 E	Ad Set Re De	ld Servic t as Start fresh Pro tail Prop	ence tUp Proje oject Too perties	ice ct Ibox Iten	ns		

Select the Target framework\.NET Framework4 item in the Application tab.

Application	Configuration: N/A	latfo
Build		- Contraction
Build Events	Assembly name:	
	SimpleReport	
Debug	Target framework:	
Resources	.NET Framework 4 Client Profile	-
Services	.NET Framework 2.0 .NET Framework 3.0	٦
Settings	.NET Framework 3.5 .NET Framework 3.5 Client Profile	
Reference Paths	.NET Framework 4 Client Profile	
	· · · · ·	_

Press the "Yes" button in the opened window.



Target Fran	nework Change
2	Changing the Target Framework requires that the current project be closed and then reopened. Any unsaved changes within the project will be automatically saved. Changing Target Framework may require manual modification of project files in order to build. Are you sure you want to change the Target Framework for this project?
	Yes No Help

Open main form of the application by double click on the "Form1.cs" in the Solution Explorer.



Click "DataSet" element on the Toolbox and place DataSet onto the form.



Select "Untyped dataset", click "OK"



The component is available in the lower part of the window.



Step 4

Select dataSet1 in the form editor. On the property grid, select Tables property, click button in order to open property editor.

Prop	perties	→ Ĥ	×
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	Locale	ru-RU	*
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4	Design	l	3
	(Name)	dataSet1	Ε
	GenerateMemb	True	
	Modifiers	Private	
4	Misc		
	EnforceConstrai	True	÷

Click "Add" in order to add table. Set property TableName = Customers.

Tables Collection Editor					
Members:		Cus	stomers Properties:		
0 Customers		⊿	Data		
		⊳	(ApplicationSetting		
			Columns	(Collection)	
			Constraints	(Collection)	
			DisplayExpression		
			MinimumCapacity	50	
			Namespace		
			Prefix		
			PrimaryKey	DataColumn[]	
			TableName	Customers	
		۵	Design		
			(Name)	dataTable1	
	×		GenerateMember	True	
			Modifiers	Private	
Add		Δ	Misc		

Select Columns property, click button $\overline{\operatorname{Im}}$ in order to open property editor.

Tables Collection Editor				U	? ×
Members:		Cus	stomers Properties:		
0 Customers		۵	Data		*
		⊳	(ApplicationSetting		
		(Columns	(Collection)	
			Constraints	(Collection)	- 0
			DisplayExpression		
			MinimumCapacity	50	
			Namespace		=
			Prefix		
			PrimaryKey	DataColumn[]	
			TableName	Customers	
		۵	Design		
			(Name)	dataTable1	
	X		GenerateMember	True	
	<u> </u>		Modifiers	Private	
Add		۵	Misc		-
					Close

Click "Add" to add a new column. Add two columns. Set ColumnName property to "CompanyName", "CustNo". Set DataType = System.Int32, AllowDBNull = False for the CustNo column.

Columns Collection Editor				9	? >
Members:		Cus	tNo Properties:		
0 CompanyName		۵	Data		-
1 CustNo		⊳	(ApplicationSetting		
		(AllowDBNull	False	
			AutoIncrement	False	
			AutoIncrementSeed	0	
			AutoIncrementStep	1	=
			Caption	CustNo	
		(ColumnName	CustNo	
			DataType	System.Int32	
			DateTimeMode	UnspecifiedLocal	
			DefaultValue	<dbnull></dbnull>	
			Expression		
	X		MaxLength	-1	
			Namespace		
Add			Prefix		

 $\mathbf{\mathfrak{S}}$

In the Tables Collection Editor click "Add" in order to add one more table. Set TableName property to "Orders".

Tables Collection Editor				?	×
Members:	Ord	lers Properties:			
0 Customers	⊿	Data			*
1 Orders	⊳	(ApplicationSetting:			
		Columns	(Collection)		
		Constraints	(Collection)		
		DisplayExpression			
		MinimumCapacity	50		
		Namespace		:	=
		Prefix			
		PrimaryKey	DataColumn[]	_	
		TableName	Orders		
	۵	Design			
		(Name)	dataTable2		
X		GenerateMember	True		
		Modifiers	Private		
Add	۵	Misc			-
				Close	

Open Columns property editor. Add four columns, set ColumnName property to "OrderID", "OrderDate", "OrderSum", "CustNo". Set DataType = System.Int32, AllowDBNull = False for the CustNo column.

Columns Collection Editor	? <mark>×</mark>	
Members:	CustNo Properties:	
0 OrderID	a Data	
1 OrderDate	ApplicationSetting:	
2 OrderSum	AllowDBNull False	
3 CustNo	AutoIncrement False	
	AutoIncrementSeed 0	
	AutoIncrementStep 1	
	Caption CustNo	
	ColumnName CustNo	
	DataType System.Int32	
	DateTimeMode UnspecifiedLocal —	4
	DefaultValue <dbnull></dbnull>	
	Expression	
×	MaxLength -1	
	Namespace	
Add	Prefix	,
	Close]

Step 7

Select dataSet1 component in the form editor. On the property grid, select Relation property and click button \Box to open property editor.

Pro	perties		ų×		
dataSet1 System.Data.DataSet -					
•	≵↓ 💷 				
	Locale	ru-RU	*		
	Namespace				
	Prefix		_		
(Relations	(Collection)			
	Tables	(Collection)	63		
4	Design				
	(Name)	dataSet1	=		
	GenerateMemb	True			
	Modifiers	Private			
4	Misc				
	EnforceConstrai	True	-		

Click "Add".

Relations Collection E	ditor			
Members:		Propertie	5:	
		×		

In the Relation form, set "CustomersOrder" in the Name field. Select "Customers" in the "Parent Table" and "Orders" in the "Child Table". In the "Columns table", set Key Columns – "CustNo", Foreign Key Columns – "CustNo".

Relation					? ×
<u>N</u> ame: CustomersOrder Specify the keys that <u>P</u> arent table: Customers	: relate tables in you	ur data	set. <u>C</u> hild table: Orders		
Columns:					
Key Columns		Fore	ign Key Colum	nns	
CustNo					
		Order Order Order	rID rDate rSum		
		Cust	No		<u>}</u>
<u>U</u> pdate rule:	Cascade				•
<u>D</u> elete rule:	Cascade				-
Accept/Reject rule:	None				•
				OK	Cancel

Right click on the form and select "View Code" in the context menu in order to view code.



Add the following code in the class constructor to fill in a data source:

{

```
public Form1()
      InitializeComponent();
      DataRow row = dataTable1.NewRow();
      row["CustNo"] = 1;
      row["CompanyName"] = "Bon App'";
      dataTable1.Rows.Add(row);
      row = dataTable1.NewRow();
      row["CustNo"] = 2;
      row["CompanyName"] = "Chop-suey Chinese";
      dataTable1.Rows.Add(row);
      row = dataTable1.NewRow();
      row["CustNo"] = 3;
      row["CompanyName"] = "Maison Dewey";
      dataTable1.Rows.Add(row);
      row = dataTable2.NewRow();
      row["CustNo"] = 1;
      row["OrderID"] = "00001";
      row["OrderDate"] = "21.03.2010";
      row["OrderSum"] = "50.00";
      dataTable2.Rows.Add(row);
      row = dataTable2.NewRow();
      row["CustNo"] = 1;
      row["OrderID"] = "00002";
      row["OrderDate"] = "15.02.2010";
      row["OrderSum"] = "14.50";
      dataTable2.Rows.Add(row);
      row = dataTable2.NewRow();
      row["CustNo"] = 2;
      row["OrderID"] = "00010";
      row["OrderDate"] = "17.04.2010";
      row["OrderSum"] = "134.00";
      dataTable2.Rows.Add(row);
      row = dataTable2.NewRow();
      row["CustNo"] = 2;
      row["OrderID"] = "00011";
      row["OrderDate"] = "24.01.2010";
      row["OrderSum"] = "45.45";
      dataTable2.Rows.Add(row);
      row = dataTable2.NewRow();
      row["CustNo"] = 2;
      row["OrderID"] = "00013";
      row["OrderDate"] = "14.02.2010";
      row["OrderSum"] = "500.00";
      dataTable2.Rows.Add(row);
      row = dataTable2.NewRow();
      row["CustNo"] = 2;
      row["OrderID"] = "00101";
      row["OrderDate"] = "13.03.2010";
      row["OrderSum"] = "6.03";
      dataTable2.Rows.Add(row);
      row = dataTable2.NewRow();
      row["CustNo"] = 3;
      row["OrderID"] = "00666";
      row["OrderDate"] = "06.06.2010";
      row["OrderSum"] = "66.66";
      dataTable2.Rows.Add(row);
```

}



Get back to the application form by clicking the "Form1.cs[Design]" tab.



Click on the "ReportManager" on the Toolbox and place this component onto the form. This component is designed to store collections of report templates and data sources.

Toolbox	* -₽	×
▷ Olap	ModelKit	*
▷ Char	t ModelKit	
▷ Instru	umentation ModelKit	
⊿ Repo	rt Sharp-Shooter	
h,	Pointer	
0	ReportDesigner	
0	DesignerErrorList	
1	DesignerDataSourcesTree	
TIFF	TiffExportFilter	
PNC	PngExportFilter	
	DesignerStatusBar	
(iii	ReportManager	
EMF	EmfExportFilt	
	DesignerDocumentTree	Ξ
	DesignerToolBox	
*	IngEvportFilter	

The component is available in the lower part of the window.

dataSet1	reportManager1

Step 10

On the property grid, initialize OwnerForm property of the ReportManager by selecting the form it is located on.



Double click on ReportManager to open ReportManager editor.

Form1.cs Form1.cs [Design] ×		•
Form1		
	Reports Data sources	
	Add Delete Run Designer	
	OK Cancel	
dataSet1		

Go to Data sources tab, click "Add", set data source name – "CustomersOrder", select data source value – "dataSet1".



ReportManager editor	l		23
Reports Data sources			
Data bindings list			
Edit object name			
Name CustomersOrder			וור
Value dataSet1 DataSource only			
		Cancel	1
	•		
		-	
		-	
		_	
Add Edit Delete			
Add Edit Delete			



Go to "Reports" tab, click "Add" and select "InlineReportSlot".

ReportManager editor	
Reports Data sources	
Add Delete Run Designer	
FileReportSlot	
InlineReportSlot	
UriReportSlot	

Step 12

Set name of the report in the property ReportName – "Detail".

Click "Run Designer" in order to open template editor - Report Designer.


Create new empty report – select File\New from the main menu.



Select "Blank Report" in the Wizards Gallery and click "OK".

PE	RPETUUM software	www.perpetuumsoft.com			
Í	📴 Wizards Gall	ery			23
	New Saved				
	Blank Report				
	Standard Repo	ort			
	Pivot table Re	port			
			Load from file	ОК	Cancel

Click the "Properties" tab of the tool window in the right part of the designer.





Pro	perties	→ Å ×								
docum st1 Document										
4	Appearance									
⊳	GraphicsSettings	PerpetuumSoft.Reporting.								
	MasterReport									
	ShowObjectBour	True								
۵	Behaviour									
	DoublePass	False								
	InvalidRenderLer	ThrowException								
۵	Design									
	Name	document 1								
4	Grid Settings									
	GridStep	0,5 cm								
	ShowGrid	True								
	SnapToGrid	True								
۵	Misc									
	DataSources	(Collection)								
	Delete EmptyPage	False								
	Description									
	MetricUnit	Centimeter								
	Parameters	(Collection)								
	Title									
4	Render									
	StyleSheet									
4	Script									
	CommonScript									
	CompilerVersion									
	CustomLanguage									
	GenerateScript									
	Imports									
	ScriptLanguage	VisualBasicNET								
CommonScript Determines code of the main script sections. Allows you to declare global script variables a										
***	riope	Boom Document								

Set property ScriptLanguage = CSharp.



Press "DataBand" button on the Insert tab in the group Container.



Click on the template area to add DataBand band to the template.

Set data source in the property DataSource = CustomersOrder.Customers.

17 i 18 i 19	멸	Properties 🝷 🖣 🗙
		dataBand1 DataBand 🔹
		⊿ Appearance
		StyleName
		⊿ Data
		DataSource nerOrder.Customers -
(none)		
CustomerOrder		
-		

Step 16

Press "Detail" button on the Insert tab in the group Container.

File	Home	Insert	Layout Vi	2W						
	PageHeade	er T	TextBox	*	<u> S</u> hape	ChartControl	{ <mark>≡</mark> DataBand	SideBySide	Header	📒 SubReport
New	👔 PageOverla	y T	AdvancedText	Picture	ZipCode	🛃 Widget	E GroupBand	🖶 CrossBand	😑 Detail 📐	🗲 Content
Page	📔 PageFoote	RTF	RichText	- recure	BarCode	WinFormsControl	{🔳 BandContainer		Footer	PivotTable
	Page		Text		Illust	ration		Containe	r	

Click on the DataBand area to add Detail band inside DataBand.

JataBand1:DataBand DataSource = CustomerOrder.Customers												
Jetail1:Detail												
	0											
end of dataBand1	\$											

Step 17

Go to "DataSources" tab.



DataSources	- ₽ X
Bands Data Sourc	Parameters
Bands Data Sourc dataBand 1 CompanyName Cust No CustomersOrder DataItem DataItem Direction Fields Special Fields	Parameters
Prope 🔁 DataSo 📧	Document

Drag and drop "CompanyName" field from the dataBand1 tree to the detail1 band. As a result TextBoxes are created. Value property is automatically filled with script loading data from the data source.

dataBand1:DataBand DataSource = CustomersOrders.Customers											
detail1:Detail											
<pre></pre> <pre><</pre>											
["CompanyName"]>											
end of dataBand1											



Add another DataBand band to the dataBand1. Set

"CustomersOrder.Customers.CustomersOrder" as a data source in the DataSource property.

dataBand1:DataBand DataSource = CustomersOrders.Customers	
detail1:Detail	
<databand1< th=""><th></th></databand1<>	
["CompanyName"]>	
dataBand2:DataBand_DataSource = CustomersOrders.Customers.CustomersOrders	
end of dataBand2	
end of dataBand1	

Sty3 19

Add Detail band to the dataBand2.

Step 20

On the "Data Sources" tab, drag and drop "OrderID", "OrderDate", "OrderSum" fields from the dataBand2 tree to the detail2 band.

		Properties	Data sources	Document tree
dataBand1:DataBand DataSource = CustomersOrders.Customers		Bands	Data Sources	
detail1:Detail		⊡- dataE	land1	
<databand1< td=""><td></td><td></td><td>ompanyName ustNo</td><td></td></databand1<>			ompanyName ustNo	
["CompanyName"]>			ustomersOrders	
dataBand2:DataBand_DataSource = CustomersOrders.CustomersOrders		D	ataltem	
detail2:Detail		L	ineNumber land2	
<pre><databand2< th=""><th></th><th>- C</th><th>iustNo ataltem ineNumber</th><th></th></databand2<></pre>		- C	iustNo ataltem ineNumber	
end of dataBand2			irderDate	
end of dataBand1	≡	0 0	irderID IrderSum ial Fields	

Step 21

Save template and close Report Designer.

Step 22

Add code to display report to the class constructor. Write RenderComplited event handler of the InlineReportSlot object.

```
public Form1()
  {
      InitializeComponent();
      DataRow row = dataTable1.NewRow();
      row["CustNo"] = 1;
      row["CompanyName"] = "Bon App'";
      dataTable1.Rows.Add(row);
      row = dataTable1.NewRow();
      row["CustNo"] = 2;
      row["CompanyName"] = "Chop-suey Chinese";
      dataTable1.Rows.Add(row);
      row = dataTable1.NewRow();
      row["CustNo"] = 3;
      row["CompanyName"] = "Maison Dewey";
      dataTable1.Rows.Add(row);
      row = dataTable2.NewRow();
      row["CustNo"] = 1;
      row["OrderID"] = "00001";
      row["OrderDate"] = "21.03.2010";
      row["OrderSum"] = "50.00";
      dataTable2.Rows.Add(row);
      row = dataTable2.NewRow();
      row["CustNo"] = 1;
      row["OrderID"] = "00002";
```



row["OrderDate"] = "15.02.2010"; row["OrderSum"] = "14.50"; dataTable2.Rows.Add(row); row = dataTable2.NewRow(); row["CustNo"] = 2; row["OrderID"] = "00010"; row["OrderDate"] = "17.04.2010"; row["OrderSum"] = "134.00"; dataTable2.Rows.Add(row); row = dataTable2.NewRow(); row["CustNo"] = 2; row["OrderID"] = "00011"; row["OrderDate"] = "24.01.2010"; row["OrderSum"] = "45.45"; dataTable2.Rows.Add(row); row = dataTable2.NewRow(); row["CustNo"] = 2; row["OrderID"] = "00013"; row["OrderDate"] = "14.02.2010"; row["OrderSum"] = "500.00"; dataTable2.Rows.Add(row); row = dataTable2.NewRow(); row["CustNo"] = 2; row["OrderID"] = "00101"; row["OrderDate"] = "13.03.2010"; row["OrderSum"] = "6.03"; dataTable2.Rows.Add(row); row = dataTable2.NewRow(); row["CustNo"] = 3; row["OrderID"] = "00666"; row["OrderDate"] = "06.06.2010"; row["OrderSum"] = "66.66"; dataTable2.Rows.Add(row); inlineReportSlot1.RenderCompleted += new EventHandler(reportSlot RenderCompleted); } private void reportSlot RenderCompleted(object sender, EventArgs e) { using (PerpetuumSoft.Reporting.View.PreviewForm previewForm = new PerpetuumSoft.Reporting.View.PreviewForm(inlineReportSlot1)) { previewForm.WindowState = FormWindowState.Maximized; previewForm.ShowDialog(this); } }

Step 23

Add two buttons onto the form (drag and drop "Button" element from the Toolbox onto the form).



Select Button element on the form, edit Text property on the property grid. Set Text = Template for one button and Text = Report for the other one.

Properties		* 1	1 × 1	Pro	perties		▼ ₽ ×
button1 Sy	stem.Wi	ndows.Forms.But	tc 🕶	bu	tton2 System.Wi	ndows.Forms	.Buttc 🝷
2 ↓	9				2↓ 🗉 🖋		
ImageIn	dex	(none)	•		ImageIndex	(none)	*
ImageK	ey	(none)			ImageKey	(none)	
ImageLi	st	(none)			ImageList	(none)	
RightTo	Left	No			RightToLeft	No	
Text		Template 📋 🗖		0	Text	Report]	-)
TextAlig	n	MiddleCenter			TextAlign	MiddleCente	r
TextIma	geRelati	Overlay			TextImageRelati	Overlay	
UseMne	monic	True			UseMnemonic	True	
UseVisu	alStyleB	True			UseVisualStyleB	True	
UseWait	Cursor	False			UseWaitCursor	False	

Create Click event handlers for the buttons – double click on the Button element on the form. Add code launching report generation to the event handler. For example, use the following code:

priv {	vate	void	but	ton1	_Click	(objec	t	sender,	EventArgs	e)
}	inli	neRep	port	Slot	1.Desi	gnTemp	lā	ate();		
priv {	vate	void	but	ton2	_Clic}	(objec	t	sender,	EventArgs	e)
}	inli	neRep	port	Slot	1.Prep	oare();				

Step 24

Click "Start Debugging" on the Visual Studio toolbar in order to run application.

File	Edit	View	Refactor	Project	Build	Debug	Team	Data	Tools	Test	Window	Help	
16	-	- 🞽	🖬 🗊 d	k 🖻 🛍) ? .	· (°' - (F - E,		Debug		- 🖄		- 🛛 🖓 🖀 📭 🐼 🏷 🛃 📴 - 🖕
	- 🔁 👌	A.	17 🛊 🕯) i i i i i i i i i i i i i i i i i i i	2 🗆	Ş 📮	Şi 🗛 🗸	23	-, ,				

Click the "Report" button in the opened application window.



Generated report will open with Report Viewer.

🤣 document1 - Preview report	The same in the same		
File View Navigate Document Help	· I I R I 7 1 4 4 10 0		
			Ĺ
Bon App'			
00001	21.02.2010	50.00	
00001	21.03.2010	50.00	
00002	15.02.2010	14.50	=
Ohan aven Ohiaaa			
Chop-suey Chinese			
00010	17.04.2010	134.00	
00011	04.04.0040		
00011	24.01.2010	45.45	
00013	14.02.2010	500.00	
00101	10.00.0010	0.00	
00101	13.03.2010	6.03	
Maison Dewey			
00666	06.06.2010	66.66	
Page 1 of 1 - Zoom 158%		N	

In order to edit template, close Report Viewer and press "Template" on the application form.



Similar application sample is located in the following folder "\Perpetuum Software\Net ModelKit Suite\ Samples\Report Sharp-Shooter\CSharp\MasterDetail".

Similar sample in the Samples Center is Reports\Master-Detail\Master-Detail.



Chart

Template of a report containing charts for every category of goods including information on price of the goods in this category.

Step 1

Create new project in Microsoft Visual Studio. Select New\Project from the main menu.



Select Windows Forms Application, set project name – "Charts", set directory to save the project to.

New Project					_? <mark>_</mark> ×_
Recent Templates		.NET Fra	mework 4 🔹 Sort by: Default		Search Installed Templates
Installed Templates Visual C#		_ c #	Windows Forms Application	Visual C#	Type: Visual C# A project for creating an application with a
Windows Web		*	WPF Application	Visual C#	Windows Forms user interface
Office Cloud Reporting		с: Ес ⁴	Console Application	Visual C#	
 Keporting SharePoint Silverlight 		c ♯	Class Library	Visual C#	
Test WCF		[∞] c≉	WPF Browser Application	Visual C#	
Workflow Other Languages 		C#	Empty Project	Visual C#	
 Other Project Type Database Tool Decide 	es	_ c [#]	Windows Service	Visual C#	
Online Templates		•C	WPF Custom Control Library	Visual C#	
		₹C #	WPF User Control Library	Visual C#	
		<mark>.</mark> €‡	Windows Forms Control Library	Visual C#	
Name:	Charts				
Location:	c:/		\documents\visual studio 2010\Projects	•	Browse
Solution name:	Charts				 Create directory for solution Add to source control
					OK Cancel

Change the project properties. Select the $\ensuremath{\mathsf{Project}\ensuremath{\mathsf{Charts}}\xspace$ properties... item in the main menu.



Select the Target framework\.NET Framework4 item in the Application tab.

Application	Configuration: N/A	Diatf
Build		Thatty
Build Events	Assembly name:	
Dund Events	SimpleReport	
Debug	Target framework:	
Resources	.NET Framework 4 Client Profile	-
Services	.NET Framework 2.0 .NET Framework 3.0	
Settings	.NET Framework 3.5 .NET Framework 3.5 Client Profile	
Reference Paths	.NET Framework 4 .NET Framework 4 Client Profile	
	· · · ·	

Press the "Yes" button in the opened window.



Target Fra	mework Change
?	Changing the Target Framework requires that the current project be closed and then reopened. Any unsaved changes within the project will be automatically saved. Changing Target Framework may require manual modification of project files in order to build. Are you sure you want to change the Target Framework for this project?
	Yes No Help

Open main form of the application by double click on the "Form1.cs" in the Solution Explorer.



Click "DataSet" element on the Toolbox and place DataSet onto the form.



Select "Untyped dataset", click "OK"



The component is available in the lower part of the window.



Step 4

Select dataSet1 in the form editor. On the property grid, select Tables property, click button \Box in order to open property editor.

Pro	perties	→ Ĥ	×			
dat	dataSet1 System.Data.DataSet -					
•	≵↓ 🔳 🦸					
	Namespace		*			
	Prefix					
	Relations	(Collection)				
	Tables	(Collection)				
4	Design	N1				
	(Name)	dataSet1				
	GenerateMemb	True	-			
	Modifiers	Private	-			
4	Misc					
	EnforceConstrai	True				
	RemotingForma	Xml	-			
Tables The collection that holds the tables for this DataSet.						

Click "Add" in order to add table. Set property TableName = Products.

Tables Collection Editor					
Members:		Pro	ducts Properties:		
0 Products		۵	Data		
		⊳	(ApplicationSetting		
			Columns	(Collection)	
			Constraints	(Collection)	
			DisplayExpression		
			MinimumCapacity	50	
			Namespace		
			Prefix		
			PrimaryKey	DataColumn[]	
			TableName	Products	
		۵	Design		
			(Name)	dataTable1	
	×		GenerateMember	True	
			Modifiers	Private	
Add		4	Misc		

Select Columns property, click button $\overline{\square}$ in order to open property editor.

Tables Collection Editor					?	x
Members:		Pro	ducts Properties:			
0 Products		۵	Data			*
		⊳	(ApplicationSetting			
			Columns	(Collection)		
			Constraints	(Collection)		
			DisplayExpression			
			MinimumCapacity	50		
			Namespace			Ξ
			Prefix			
			PrimaryKey	DataColumn[]		
			TableName	Products		
		۵	Design			
			(Name)	dataTable1		
	X		GenerateMember	True		
	<u> </u>		Modifiers	Private		
Add		۵	Misc			Ŧ
					Close	

Click "Add" to add a new column. Add two columns. Set ColumnName properties to "ProductName", "UnitPrice".

Columns Collection Editor					?
Members:		Uni	tPrice Properties:		
0 ProductName		۵	Data		
1 UnitPrice		⊳	(ApplicationSetting:		[
			AllowDBNull	True	
			AutoIncrement	False	
			AutoIncrementSeed	0	
			AutoIncrementStep	1	
			Caption	UnitPrice	
		(ColumnName	UnitPrice	
			DataType	System.String	
			DateTimeMode	UnspecifiedLocal	
			DefaultValue	<dbnull></dbnull>	
			Expression		
	×		MaxLength	-1	
	•		Namespace		
Add			Prefix		

Right click on the form and select "View Code" in the context menu in order to view code.

Form1.cs [Design]* ×			
🖳 Form1			
	E	View Code	F7
	8	Lock Controls	
	ß	Paste	Ctrl+V
	2	Properties	
			~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

Add the following code in the class constructor to fill in a data source:

```
public Form1()
{
        InitializeComponent();
        DataRow row = dataTable1.NewRow();
        row["ProductName"] = "Chai";
```

```
row["UnitPrice"] = "18";
dataTable1.Rows.Add(row);
row = dataTable1.NewRow();
row["ProductName"] = "Chang";
row["UnitPrice"] = "19";
dataTable1.Rows.Add(row);
row = dataTable1.NewRow();
row["ProductName"] = "Aniseed Syrup";
row["UnitPrice"] = "10";
dataTable1.Rows.Add(row);
```

Get back to the application form by clicking the "Form1.cs[Design]" tab.

Form1.cs* × Form1.cs [Design]*
🔧 Charts.Form1
⊡using System;
using System.Collection
using System.ComponentM
using Svstem.Data:

}

Click on the "ReportManager" on the Toolbox and place this component onto the form. This component is designed to store collections of report templates and data sources.



The component is available in the lower part of the window.

[™] dataSet1	reportManager1

#### Step 8

On the property grid, initialize OwnerForm property of the ReportManager by selecting the form it is located on.



Double click on ReportManager to open ReportManager editor.

Form1.cs Form1.cs [Design] ×		•
Form1		
	- ReportManager editor	
	Reports Data sources	
	ĨĨŽ↓ I	
	6	
	Add Delete Run Designer	
		OK Cancel
dataSet1		

Go to "Data Sources" tab and click "Add", set data source name – "Products", select data source value – "dataSet1.Products".

ReportManager editor
Reports Data sources
Data bindings list
Edit object name
Name Products
Value data Set 1. Products      Data Source only
OK Cancel
Add Edit Delete
OK Cancel

Go to "Reports" tab, click "Add" and select "InlineReportSlot".

ReportManager editor	
Reports Data sources	
	2↓ □
Add Delete Run Designer	
FileReportSlot	
InlineReportSlot	
UrlReportSlot	

Set name of the report in ReportName – "Charts".

Click "Run Designer" to open template editor Report Designer.



Create new empty report – select File\New from the main menu.



Select "Blank Report" in the Wizards Gallery and click "OK".

1	🕎 Wizards Gallery	23
	New Saved	
	Blank Report	
	Standard Report	
	Pivot table Report	
	Load fr	om file OK Cancel

Press "ChartControl" button on the Insert tab in the group Illustration.

File	Home	Insert	Layout Vie	ew
New Page	PageHead PageOverl PageFoote	er T ay T er RTF	TextBox AdvancedText RichText	Shape       ChartControl         Picture       ZipCode       Widget         BarCode       WinFormsControl
	Page		Text	Illustration

Click on the template area to add ChartControl to the template.

## Step 14

Select ChartControl element. You will see component properties on the property grid of the Tool Window in the right part of the editor.

File Home Insert Layout Vie	iew Format			🕜 About 🗠
PageHeader     T TextBox       New     PageOverlay     AdvancedText       Page     PageFooter     IIII RichText       Page     Text     RichText	Shape III ChartControl     ZipCode & Widget     III BarCode MinFormsControl     IIIustration	E DataBand E SideBySide GroupBand CrossBand BandContainer Container	Header     ■ SubReport     ■ GroupHeader       ■ Detail     ● Content     ■ GroupFooter       ■ Footer     ▼ PivotTable     Obsolete	
interior binding 5				
1 1 1 1 2 1 3	14151617181	9 i 10 i 11 i 12 i 13 i	i 14 i 15 i 16 i 17 i 18 i 19	😒 Properties 🔹 🕈 🗙
				<ul> <li>AchatControll CharControl</li> <li>Appearance         <ul> <li>Arade</li> <li>Border</li> <li>DetaSource</li> <li>Tag</li> <li>Design</li> <li>Name</li> <li>Chart Control 1</li> <li>Location</li> <li>Stel</li> <li>Com</li> <li>Stel</li> <li>Com</li> <li>Stel</li> <li>Com</li> <li>Border</li> <li>Chart</li> <li>PerpetuumSoft.Charts</li> <li>Nevigation</li> <li>Bookmark</li> <li>Hyberink</li> <li>Berder</li> <li>Generate Script</li> <li>Generate Script</li> </ul> </li> </ul>

Select DataSource property, click button  $\bowtie$ , and select value "Products".



Double click on the ChartControl area to open Chart ModelKit designer. Create a chart. Find more information on creating charts in Chart ModelKit designer in Section Chart ModelKit hereof.

## Step 16

Close Chart ModelKit designer by clicking "OK" button.

Report template should look as follows:



Save template, close Report Designer.

### **Step 18**

Add code to display report to the class constructor. Write RenderComplited event handler of the InlineReportSlot object.

```
public Form1()
        {
            InitializeComponent();
            DataRow row = dataTable1.NewRow();
            row["ProductName"] = "Chai";
            row["UnitPrice"] = "18";
            dataTable1.Rows.Add(row);
            row = dataTable1.NewRow();
            row["ProductName"] = "Chang";
            row["UnitPrice"] = "19";
            dataTable1.Rows.Add(row);
            row = dataTable1.NewRow();
            row["ProductName"] = "Aniseed Syrup";
            row["UnitPrice"] = "10";
            dataTable1.Rows.Add(row);
            inlineReportSlot1.RenderCompleted += new
EventHandler(reportSlot RenderCompleted);
        }
        private void reportSlot RenderCompleted (object sender, EventArgs
e)
        {
            using (PerpetuumSoft.Reporting.View.PreviewForm previewForm =
new PerpetuumSoft.Reporting.View.PreviewForm(inlineReportSlot1))
            {
                previewForm.WindowState = FormWindowState.Maximized;
                previewForm.ShowDialog(this);
            }
        }
```

#### **Step 19**

Add two buttons onto the form (drag and drop "Button" element from the Toolbox onto the form).



Select Button element on the form, edit Text property on the property grid. Set Text = Template for one button and Text = Report for the other one.

Pro	perties	▲ Å ×	Prop	perties	<b>▲</b> Å	×
but	t <b>ton1</b> System.Wi	ndows.Forms.Buttc 👻	but	ton2 System.Wi	ndows.Forms.Butto	-
•	≵↓ 🔲 🖋			<b>≜</b> ↓ 🔲 🥖		
	ImageIndex	(none) 🔺		ImageIndex	(none)	*
	ImageKey	(none)		ImageKey	(none)	
	ImageList	(none)		ImageList	(none)	
	RightToLeft	No		RightToLeft	No	
C	Text	Template 📋 💽	0	Text	Report 👖 👻	
C	Text TextAlign	Template T	0	Text TextAlign	Report ] ▼ MiddleCenter	)
C	Text TextAlign TextImageRelati	Template T T MiddleCenter Overlay	C	Text TextAlign TextImageRelati	Report ] - MiddleCenter Overlay	)
C	Text TextAlign TextImageRelati UseMnemonic	Template j T MiddleCenter Overlay True	C	Text TextAlign TextImageRelati UseMnemonic	Report I - MiddleCenter Overlay True	)
C	Text TextAlign TextImageRelati UseMnemonic UseVisualStyleB	Template T Template T Template T Template T Template T Template True		Text TextAlign TextImageRelati UseMnemonic UseVisualStyleB	Report I - MiddleCenter Overlay True True	)
C	Text TextAlign TextImageRelati UseMnemonic UseVisualStyleB UseWaitCursor	Template T	C	Text TextAlign TextImageRelati UseMnemonic UseVisualStyleB UseWaitCursor	Report     I     ▼       MiddleCenter     Overlay       True       True       False	

Create Click event handlers for the buttons – double click on the Button element on the form. Add code launching report generation to the event handler. For example, use the following code:

priv {	vate	void	but	ton1	_Cli	ck(o	bject	S	ender	,	EventA	Args	e)
}	inli	neRep	port	Slot	1.De	sign	Templa	ate	e();				
priv {	vate	void	but	ton2	_Cli	ck( <mark>o</mark>	bject	S	ender	,	EventA	Args	e)
}	inli	neRep	port	Slot	1.Pr	epar	e();						

#### Step 20

Click "Start Debugging" on the Visual Studio toolbar in order to run application.

File	Edit	View	Refactor	Project	Build	Debug	Team	Data	Tools	Test	Window	Help	
16	-	- 🞽	🖬 🗊   d	k 🖻 🛍	<b>) ?</b> .	· (°' - (	<b>F</b> - E,		Debug		- 🖄		- 🛛 🖓 🖀 📭 🐼 🏷 🛃 📴 - 🖕
	- 🔁 👌	A.	17   🛊 🕯	) i i i i i i i i i i i i i i i i i i i	2   🗆	Ş 📮	Şi 🗛 🗸	23	-, ,				

Click the "Report" button in the opened application window.



Generated report will open with Report Viewer.



In order to edit template, close Report Viewer and press "Template" on the application form.





Similar sample in the Samples Center is Report Controls\Charts\Chart on DataBand.



# Widget

Template of a report containing widget.

### Step 1

Create new project in Microsoft Visual Studio. Select New\Project from the main menu.



Select Windows Forms Application, set project name – "Widget", set directory to save the project to.

New Project					? <mark>×</mark>
Recent Templates		.NET Fra	mework 4 🔹 🔹 Sort by: Default		Search Installed Templates
Installed Templates <ul> <li>Visual C#</li> </ul>		c#	Windows Forms Application	Visual C#	<b>Type:</b> Visual C# A project for creating an application with a
Windows Web			WPF Application	Visual C#	Windows Forms user interface
Cloud		C1	Console Application	Visual C#	
<ul> <li>SharePoint</li> <li>Silverlight</li> </ul>		<b>c</b> ♯	Class Library	Visual C#	
Test WCF		°⊂≉	WPF Browser Application	Visual C#	
Workflow ▶ Other Languages		C#	Empty Project	Visual C#	
<ul> <li>Other Project Type</li> <li>Database</li> </ul>	-5	Ę¢#	Windows Service	Visual C#	
<ul> <li>Test Projects</li> <li>Online Templates</li> </ul>		•c#	WPF Custom Control Library	Visual C#	
		<b>*</b>	WPF User Control Library	Visual C#	
		≣c‡	Windows Forms Control Library	Visual C#	
Name:	Widget				
Location:	c:\.		\documents\visual studio 2010\Projects	•	Browse
Solution:	Create new solut	tion		•	
Solution name:	Widget				<ul> <li>Create directory for solution</li> <li>Add to source control</li> </ul>
					OK Cancel

Change the project properties. Select the Project \Widget Properties... item in the main menu.



Select the Target framework\.NET Framework4 item in the Application tab.

Application	Configuration: N/A	atfo
Build		
Build Events	Assembly name:	
	SimpleReport	
Debug	Target framework:	
Resources	.NET Framework 4 Client Profile	-
Services	.NET Framework 2.0 .NET Framework 3.0	
Settings	.NET Framework 3.5 .NET Framework 3.5 Client Profile	
Reference Paths	.NET Framework 4 Client Profile	
		_

Press the "Yes" button in the opened window.



Target Fra	mework Change
?	Changing the Target Framework requires that the current project be closed and then reopened. Any unsaved changes within the project will be automatically saved. Changing Target Framework may require manual modification of project files in order to build. Are you sure you want to change the Target Framework for this project?
	Yes No Help

Open main form of the application by double click on the "Form1.cs" in the Solution Explorer.



Click on the "ReportManager" on the Toolbox and place this component onto the form. This component is designed to store collections of report templates and data sources.



The component is available in the lower part of the window.



On the property grid, initialize OwnerForm property of the ReportManager by selecting the form it is located on.



## Step 5

Double click on ReportManager to open ReportManager editor.

Form1.cs [Design]* ×	
🖳 Form1	
	ReportManager editor
	Add Delete Run Designer FileReportSlot OK Cancel UrlReportSlot

Go to "Reports" tab, click "Add" and select "InlineReportSlot".

## Step 6

Set name of the report in the property ReportName – "Widget".

Click "Run Designer" in order to open template editor - Report Designer.



Create new empty report – select File\New from the main menu.



Select "Blank Report" in the Wizards Gallery and click "OK".

ΟK

Cancel

•	PERPETUUM software	www.perpetuumsoft.com			
	📴 Wizards Gall	ery			
	New Saved				
	Blank Report				
	Standard Repo	rt			
	Pivot table Rep	port			
			Load from file	ОК	Cancel
	``````````````````````````````````````				

23

## Step 8

Click the "Properties" tab of the tool window in the right part of the designer.





Properties 🝷 🖣 🗙					
docum gt1 Document					
Ĵ. Ž↓ □					
4	Appearance				
⊳	GraphicsSettings	PerpetuumSoft.Reporting.			
	MasterReport				
	ShowObjectBour	True			
۵	Behaviour				
	DoublePass	False			
	InvalidRenderLer	ThrowException			
۵	Design				
	Name	document 1			
۵	Grid Settings				
	GridStep	0,5 cm			
	ShowGrid	True			
	SnapToGrid	True			
۵	Misc				
	DataSources	(Collection)			
	Delete EmptyPage	False			
	Description				
	MetricUnit	Centimeter			
	Parameters	(Collection)			
	Title				
۵	Render				
	StyleSheet				
۵	Script				
	CommonScript				
	CompilerVersion				
	CustomLanguage				
	GenerateScript				
	Imports				
	ScriptLanguage	VisualBasicNET			
CommonScript Determines code of the main script sections. Allows you to declare global script variables a					
<b>.</b>	riope 😑 Dat	aso			

Set property ScriptLanguage = CSharp.


Press "Detail" button on the Insert tab in the group Container.



Click on the template area to add the band to the template.

### Step 10

Press "Widget" button on the Insert tab in the group Illustration.



Click on the Detail band area to add Widget component inside Detail.

Double click on the Widget element to open Instrument designer in order to design a widget. Find more information on creating widgets in Instrument designer in Section Instrument designer hereof.

After the Widget is created close Instrument designer by clicking "OK"

Report template should as follows:



## Step 11

Save template and close Report Designer.



Right click on the application form and select "View Code" in the context menu in order to view code.



Add code to display report to the class constructor. Write RenderComplited event handler of the InlineReportSlot object.

```
public Form1()
{
    InitializeComponent();
    inlineReportSlot1.RenderCompleted += new
EventHandler(reportSlot_RenderCompleted);
    }
    private void reportSlot_RenderCompleted(object sender, EventArgs e)
    {
        using (PerpetuumSoft.Reporting.View.PreviewForm previewForm = new
PerpetuumSoft.Reporting.View.PreviewForm(inlineReportSlot1))
        {
            previewForm.WindowState = FormWindowState.Maximized;
            previewForm.ShowDialog(this);
        }
    }
}
```

#### **Step 13**

Get back to application form by clicking "Form1.cs[Design]" tab.



Add two buttons onto the form (drag and drop "Button" element from the Toolbox onto the form).



Select Button element on the form, edit Text property on the property grid. Set Text = Template for one button and Text = Report for the other one.

Properties		<b>*</b> 1	1 × 1	Pro	perties		▼ ₽ ×
button1 Sy	stem.Wi	ndows.Forms.But	tc 🕶	bu	tton2 System.Wi	ndows.Forms	.Buttc 🝷
<b>2</b> ↓	9				2↓ 🗉 🖋		
ImageIn	dex	(none)	•		ImageIndex	(none)	*
ImageK	ey	(none)			ImageKey	(none)	
ImageLi	st	(none)			ImageList	(none)	
RightTo	Left	No			RightToLeft	No	
Text		Template 📋 🗖		0	Text	Report ]	-)
TextAlig	n	MiddleCenter			TextAlign	MiddleCente	r
TextIma	geRelati	Overlay			TextImageRelati	Overlay	
UseMne	monic	True			UseMnemonic	True	
UseVisu	alStyleB	True			UseVisualStyleB	True	
UseWait	Cursor	False			UseWaitCursor	False	

Create Click event handlers for the buttons – double click on the Button element on the form. Add code launching report generation to the event handler. For example, use the following code:

priv {	vate	void	but	ton1	_Cli	ck(o	bject	S	ender	,	EventA	Args	e)
}	inli	neRep	port	Slot	1.De	sign	Templa	ate	e();				
priv {	vate	void	but	ton2	_Cli	ck( <mark>o</mark>	bject	S	ender	,	EventA	Args	e)
}	inli	neRep	port	Slot	1.Pr	epar	e();						

#### **Step 14**

Click "Start Debugging" on the Visual Studio toolbar in order to run application.

File	Edit	View	Refactor	Project	Build	Debug	Team	Data	Tools	Test	Window	Help	
16	-	- 🞽	🖬 🗊   d	k 🖻 🛍	<b>) ?</b> .	· (°' - (	<b>F</b> - E,		Debug		- 🖄		- 🛛 🖓 🖀 📭 🐼 🏷 🛃 📴 - 🖕
	- 🔁 👌	A.	17   🛊 🕯	) i i i i i i i i i i i i i i i i i i i	2   🗆	Ş 📮	Şi (iş	23	-, ,				

Click the "Report" button in the opened application window.



Generated report will open with Report Viewer.



In order to edit template, close Report Viewer and press "Template" on the application form.





Similar sample in the Samples Center is Report Controls\Instruments\Instruments types.



# **Advanced Text**

Template of a report containing formatted text.

#### Step 1

Create new project in Microsoft Visual Studio. Select New\Project from the main menu.



Select Windows Forms Application, set project name – "AdvancedText", set directory to save the project to.

New Project					2 ×
Recent Templates		.NET Fra	mework 4   Sort by: Default		Search Installed Templates
Installed Templates  Visual C#  Windows  Web  Office			Windows Forms Application WPF Application	Visual C#	Type: Visual C# A project for creating an application with a Windows Forms user interface
Cloud Reporting D SharePoint Silverlight			Console Application Class Library	Visual C# Visual C#	
Test WCF Workflow ▷ Other Languages		C#	WPF Browser Application Empty Project	Visual C# Visual C#	
<ul> <li>Other Project Type</li> <li>Database</li> <li>Test Projects</li> <li>Online Templates</li> </ul>		€¢# €¢#	Windows Service WPF Custom Control Library	Visual C#	
		<b>•</b> C [#]	WPF User Control Library	Visual C#	
			Windows Forms Control Library	Visual C#	
Name:	AdvancedText				
Location:	c:\		\documents\visual studio 2010\Projects	-	Browse
Solution name:	AdvancedText				Create directory for solution  Add to source control
					OK Cancel



Change the project properties. Select the Project\AdvancedText Properties... item in the main menu.



Select the Target framework\.NET Framework4 item in the Application tab.

Application	Configuration: N/A
Build	
Build Events	Assembly name:
	SimpleReport
Debug	Target framework:
Resources	.NET Framework 4 Client Profile 🔹
Services	.NET Framework 2.0 .NET Framework 3.0
Settings	.NET Framework 3.5 .NET Framework 3.5 Client Profile
Reference Paths	.NET Framework 4 Client Profile

Press the "Yes" button in the opened window.



Target Fran	nework Change
?	Changing the Target Framework requires that the current project be closed and then reopened. Any unsaved changes within the project will be automatically saved. Changing Target Framework may require manual modification of project files in order to build. Are you sure you want to change the Target Framework for this project?
	Yes No Help

Open main form of the application by double click on the "Form1.cs" in the Solution Explorer.



Click on the "ReportManager" element on the Toolbox and place this component onto the form. This component is designed to store collections of report templates and data sources.



The component is available in the lower part of the window.



On the property grid, initialize OwnerForm property of the ReportManager by selecting the form it is located on.



## Step 5

Double click on ReportManager to open ReportManager editor.

Form1.cs [Design]* ×		
🧧 Forml		
	ReportManager editor	
	Reports Data sources	
	Add Delete Run Designer	
		OK Cancel
	UrlReportSlot	

Go to "Reports tab", click "Add" and select "InlineReportSlot".

## Step 6

Set name of the report in the property ReportName – "AdvancedText".

Click "Run Designer" in order to open template editor - Report Designer.

6



## Step 7

Create new empty report – select File\New from the main menu.



Select "Blank Report" in the Wizards Gallery and click "OK".

•	PERPETUUM software	www.perpetuumsoft.com			
	📴 Wizards Gal	ery			
	New Saved				
	Blank Report				
	Standard Rep	ort			
	Pivot table Re	port			
			Load from file	ОК	Cancel

23

## Step 8

Click the "Properties" tab of the tool window in the right part of the designer.





Properties 🝷 🖣 🗙								
doc	docum gt1 Document							
4	Appearance							
⊳	GraphicsSettings	PerpetuumSoft.Reporting.						
	MasterReport							
	ShowObjectBour	True						
۵	Behaviour							
	DoublePass	False						
	InvalidRenderLer	ThrowException						
۵	Design							
	Name	document 1						
4	Grid Settings							
	GridStep	0,5 cm						
	ShowGrid	True						
	SnapToGrid	True						
۵	Misc							
	DataSources	(Collection)						
	Delete EmptyPage	False						
	Description							
	MetricUnit	Centimeter						
	Parameters	(Collection)						
	Title							
4	Render							
	StyleSheet							
4	Script							
	CommonScript							
	CompilerVersion							
	CustomLanguage							
	GenerateScript							
	Imports							
	ScriptLanguage	VisualBasicNET						
CommonScript Determines code of the main script sections. Allows you to declare global script variables a								
<b>***</b>	riope	Boom Document						

Set property ScriptLanguage = CSharp.



Press "AdvancedText" button on the Insert tab in the group Text.



Click on the template area to add AdvancedText to the template.

### Step 10

Double click on the AdvancedText element area and open Formatted Text Editor. Add the following text "Right align. Red color. Font Calibri, 10, Bold, Underline." Select it.

Click those buttons "Bold", "Underline" and "Right align". Corresponding tags are added to the text.

📴 Formatted Text Editor				23
🛀 📵 I 🔟 F 📕 🚍 🚍 🗐 🗉 🕶				
<b><u><pre>cb&gt;<u><pre>cp</pre>ight"&gt;</u></pre></u></b>	*	Data Sources		
Kight align. Red color. Font Calibri, 10, Bold, Underline.		Bands	Data Sour	Parameters
			lds	
	_			
4 F				
			ОК	Cancel

Click "Font" button to open font editor. In the Fonts list, select "Calibri", set Size to "10".

Fo	nt						×
	Font: Calibri	_	Font style: Regular		Size:		ОК
	Calibri	•	Regular	*	8	1	Cancel
	Californian FB Calisto MT		Bold		10 11 12	=	
	Cambria Cambria Math	÷	Bold Italic	-	14 16	Ŧ	
	Effects		Sample				

Click "Color" button, select red color on the Color form.

🖳 Formatted Text Editor		23
B I U F D E E E E E <b><u>choice = "Calibri" size= "9"&gt;Right align. Re </u> </b>	Color  Basic colors:  Custom colors:  Define Custom Colors >>  OK Cancel	Sources ands Data Sour Parameters pecial Fields
		OK Cancel

## Step 11

Set cursor at the end of the text in the Formatted Text Editor. Click "Insert line break" button.



Add several line breaks in this way.

## Step 12

In the Formatted Text Editor, add the following text "Center align. Italic." Add by double click "Now" field from the Special Fields tree (in the Data Sources area).

Select the added text and click "Italic" and "Center align" buttons.



Close Formatted Text Editor by clicking "OK". Change size of the AdvancedText element so that the text is completely visible.



### Step 14

Add one more AdvancedText element. Open Formatted Text Editor. Click "Open RFT Document" button. Select RTF file. Close editor, change size of the AdvancedText element to view the whole text.





Save template, close Report Designer.

#### Step 16

Right click on the application form and select "View Code" in the context menu in order to view code.

Form1.cs [Design]* ×			
- Form1			×
	¥	View Code	F7
	8	Lock Controls	
	ß	Paste	Ctrl+V
	<b>8</b>	Properties	

Add code to display report to the class constructor. Write RenderComplited event handler of the InlineReportSlot object.



<pre>private void reportSlot_RenderCompleted(object sender, EventArgs e) {</pre>
<pre>using (PerpetuumSoft.Reporting.View.PreviewForm previewForm = new</pre>
erpetuumSoft.Reporting.View.PreviewForm(inlineReportSlot1))
{
previewForm.WindowState = FormWindowState.Maximized;
<pre>previewForm.ShowDialog(this);</pre>
}
}

Get back to the application form by clicking "Form1.cs[Design]" tab.

Form1.cs* ×	Form1.cs [Design]*
🗟 Advansed T	Text.Form1
⊡using using using using	System; System.Collectior System.Component System.Data:

Add two buttons onto the form (drag and drop "Button" element from the Toolbox onto the form).



Select Button element on the form, edit Text property on the property grid. Set Text = Template for one button and Text = Report for the other one.

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		Dee		- 1		Deer			- 1	V
		Prop	perties	* 1		Prop	berties		Ť	^
		but	ton1 System.Wi	ndows.Forms.Butt	tc 👻	but	ton2 System.Wi	ndows.Form	is.Butto	•
		•	<b>≵↓ 🔲 🖋</b>				<b>≜</b> ↓ 🔲 🥖			
			ImageIndex	(none)	~		ImageIndex	(none)	)	*
			ImageKey	(none)			ImageKey	(none)	)	
			ImageList	(none)			ImageList	(none)		
		_	RightToLeft	No			RightToLeft	No		
		C	Text	Template 📋 🔻			Text	Report		)
			TextAlign	MiddleCenter			TextAlign	MiddleCen	ter	
			TextImageRelati	Overlay			TextImageRelati	Overlay		
			UseMnemonic	True			UseMnemonic	True		
			UseVisualStyleB	True			UseVisualStyleB	True		
			UseWaitCursor	False			UseWaitCursor	False		

Create Click event handlers for the buttons – double click on the Button element on the form. Add code launching report generation to the event handler. For example, use the following code:

```
private void button1_Click(object sender, EventArgs e)
{
    inlineReportSlot1.DesignTemplate();
}
private void button2_Click(object sender, EventArgs e)
{
    inlineReportSlot1.Prepare();
}
```

#### **Step 18**

Click "Start Debugging" on the Visual Studio toolbar in order to run application.



Click the "Report" button in the opened application window.

🖳 Form1	
Template	Report

Generated report will open with Report Viewer.





In order to edit template, close Report Viewer and press "Template" on the application form.

🖳 Form1	
Template	Report

Similar sample in the Samples Center is Report Controls\Basic\Advanced text.



## BarCode

Template of a report designed to print labels with bar code.

### Step 1

Create new project in Microsoft Visual Studio. Select New\Project from the main menu.



Select Windows Forms Application, set project name – "BarCode", set directory to save the project to.

New Project					? <u>×</u>
Recent Templates		.NET Fra	mework 4 🔹 Sort by: Default	- III 🛄	Search Installed Templates
Installed Templates <ul> <li>Visual C#</li> </ul>	c#		Windows Forms Application Vi		Type: Visual C# A project for creating an application with a
Windows Web		<b>*</b>	WPF Application	Visual C#	Windows Forms user interface
Cloud		C1	Console Application	Visual C#	
<ul> <li>SharePoint</li> <li>Silverlight</li> </ul>		<b>c</b> ≢	Class Library	Visual C#	
Test WCF		°C♯	WPF Browser Application	Visual C#	
Workflow ▷ Other Languages		C#	Empty Project	Visual C#	
<ul> <li>Other Project Type</li> <li>Database</li> </ul>	25	<b>_c</b> ≉	Windows Service	Visual C#	
<ul> <li>Test Projects</li> <li>Online Templates</li> </ul>		<b>€</b> ¢	WPF Custom Control Library	Visual C#	
		-4	WPF User Control Library	Visual C#	
		≝c‡	Windows Forms Control Library	Visual C#	
Name:	BarCode				
Location:	c:\		\documents\visual studio 2010\Projects	•	Browse
Solution name:	BarCode				<ul> <li>Create directory for solution</li> <li>Add to source control</li> </ul>
					OK Cancel

Change the project properties. Select the  $\ensuremath{\mathsf{Project}}\xspace{\mathsf{BarCode}}\xspace{\mathsf{Properties}}\xspace{\ensuremath{\dots}}$  item in the main menu.

🗢 B	arC	ode	- Micro	soft \	/isu	al Studio	o (Admini	istrator)			
File	E	dit	View	Proje	ect	Build	Debug	Team	Data	Format	Tools
1	] -	•	• 🞽		Ad	ld Wind	ows Form	·			
1	-	l₽	후 릐	<b>3</b>	Ad	ld User (	Control				
-	Add Component										
	10		cs [Des	**	Ad	ld Class.				Shift+A	t+C
ata S			Earma1	•	Ad	ld New I	item			Ctrl+Sh	ift+A
ourc			FOILT	:::	Ad	ld Existir	ng Item			Shift+A	lt+A
8					Exc	clude Fr	om Proje	ct			
≫ 				þ	Sh	ow All F	iles				
oolbo					Ad	ld Refere	ence				
×					Ad	ld Servio	e Referen	ice			
					Set	t as Star	tUp Proje	ct			
				49	Re	fresh Pr	oject Too	lbox Iten	ns		
					Ba	rCode P	roperties.				
				_	_					13	

Select the Target framework\.NET Framework4 item in the Application tab.

Application	Configuration: N/A	atte
Build		auro
Build Events	Assembly name:	
Dund Events	SimpleReport	
Debug	Target framework:	
Resources	.NET Framework 4 Client Profile	-
Services	.NET Framework 2.0 .NET Framework 3.0	٦
Settings	.NET Framework 3.5 .NET Framework 3.5 Client Profile	
Reference Paths	.NET Framework 4 .NET Framework 4 Client Profile Install other frameworks	
		_

Press the "Yes" button in the opened window.



Target Fran	mework Change
?	Changing the Target Framework requires that the current project be closed and then reopened. Any unsaved changes within the project will be automatically saved. Changing Target Framework may require manual modification of project files in order to build. Are you sure you want to change the Target Framework for this project?
	Yes No Help

Open main form of the application by double click on the "Form1.cs" in the Solution Explorer.



Click "DataSet" element on the Toolbox and place DataSet onto the form.



Select "Untyped dataset", click "OK".



The component is available in the lower part of the window.



#### Step 4

Select dataSet1 in the form editor. On the property grid, select Tables property, click button in order to open property editor.

Pro	perties	<b>→</b> Ĥ	×
dat	aSet1 System.Da	ata.DataSet	•
•	≵↓ 🔳 🦸		
	Namespace		*
	Prefix		
	Relations	(Collection)	
	Tables	(Collection)	
4	Design	N1	
	(Name)	dataSet1	
	GenerateMemb	True	-
	Modifiers	Private	-
4	Misc		
	EnforceConstrai	True	
	RemotingForma	Xml	-
Tal The this	<b>bles</b> e collection that H s DataSet.	holds the tables for	

Click "Add" in order to add table. Set property TableName = Products.

Tables Collection Editor					
Members:		Pro	ducts Properties:		
0 Products		۵	Data		
		⊳	(ApplicationSetting		
			Columns	(Collection)	
			Constraints	(Collection)	
			DisplayExpression		
			MinimumCapacity	50	
			Namespace		
			Prefix		
			PrimaryKey	DataColumn[]	
			TableName	Products	
		۵	Design		
			(Name)	dataTable1	
	×		GenerateMember	True	
			Modifiers	Private	
Add		⊿	Misc		

Select Columns property, click button  $\overline{\square}$  in order to open property editor.

Tables Collection Editor					?	X
Members:		Pro	ducts Properties:			
0 Products		۵	Data			*
		⊳	(ApplicationSetting:			
		(	Columns	(Collection)		
			Constraints	(Collection)		
			DisplayExpression			
			MinimumCapacity	50		
			Namespace			Ξ
			Prefix			
			PrimaryKey	DataColumn[]		
			TableName	Products		
		۵	Design			
			(Name)	dataTable1		
	X		GenerateMember	True		
	Ľ.		Modifiers	Private		
Add		۵	Misc			Ŧ
					Close	

Click "Add" to add a new column. Add three columns. Set ColumnName property to "ProductName", "UnitPrice", "EAN13".

Columns Collection Editor					
Members:		EAN	13 Properties:		
0 ProductName		۵	Data		
1 UnitPrice		⊳	(ApplicationSetting:		
2 EAN13			AllowDBNull	True	
			AutoIncrement	False	
			AutoIncrementSeed	0	
			AutoIncrementStep	1	
			Caption	EAN13	
		(	ColumnName	EAN13	
			DataType	System.String	
			DateTimeMode	UnspecifiedLocal	
			DefaultValue	<dbnull></dbnull>	
			Expression		
	X		MaxLength	-1	
	••		Namespace		
Add			Prefix		

Right click on the form and select "View Code" in the context menu to view code.

Form1.cs [Design]*	×		
🖳 Form1			
		View Code	F7
	•	Lock Controls	15
		Paste	Ctrl+V
	1	Properties	
		0	

Add the following code to the class constructor in order to fill data source.

```
public Form1()
{
    InitializeComponent();
    DataRow row = dataTable1.NewRow();
    row["ProductName"] = "Chai";
```

```
row["UnitPrice"] = "18";
row["EAN13"] = "0706849000019";
dataTable1.Rows.Add(row);
row = dataTable1.NewRow();
row["ProductName"] = "Chang";
row["UnitPrice"] = "19";
row["EAN13"] = "0706849000026";
dataTable1.Rows.Add(row);
row = dataTable1.NewRow();
row["ProductName"] = "Aniseed Syrup";
row["UnitPrice"] = "10";
row["EAN13"] = "0706849000033";
dataTable1.Rows.Add(row);
```

}

Get back to the application form by clicking the "Form1.cs[Design]" tab.

Form1.cs* × Form1.cs [Design]*				
🔧 BarCode.Form1				
<pre>□using System; using System.Collection using System.Component using System.Data:</pre>	n: Me			

Click on the "ReportManager" on the Toolbox and place this component onto the form. This component is designed to store collections of report templates and data sources.



The component is available in the lower part of the window.

in ataSet1	reportManager1



On the property grid, initialize OwnerForm property of the ReportManager by selecting the form it is located on.

Pro	Properties 👻 무 🔿				
rep	ortManager1 P	erpetuumSoft.Repo	•		
•	8≣ ≙↓ 🔲 🖋 🖾				
	DataSources	Objects	*		
4	Design				
	(Name)	reportManager1			
	GenerateMemb	True			
	Modifiers	Private			
4	Misc		Е		
	About	(c) 2002-2011 Perp			
Þ	OwnerForm	Form1 💌			
-	Reports	(Collection)	-		

## Step 9

Double click on ReportManager to open ReportManager editor.

Form1.cs [Design] ×		•
Form1		
	ReportManager editor Reports Data sources	
	6	
	Add Delete Run Designer	
JataSet1		

Go to "Data Sources" tab, click "Add", set data source name – "Products", select data source value – "dataSet1.Products".



ReportManager editor Ξ 2	3
Reports Data sources	
Data bindings list	٦
Edit object name	
Name Products	
Value dataSet1.Products	
OK Cancel	
Add Edit Delete	
OK Cancel	

Go to "Reports" tab, click "Add" and select "InlineReportSlot".

ReportManager editor	
Reports Data sources	
InlineReportSlot OK	Cancel
UriReportSlot	

Set name of the report in the property ReportName – "BarCode".

Click "Run Designer" in order to open template editor - Report Designer.



Add

Delete

Create new empty report – select File\New from the main menu.

Run Designer



Select "Blank Report" in the Wizards Gallery and click "OK".

OK

Cancel

		_
•	PERPETUUM software www.perpetuumsoft.com	
	🕎 Wizards Gallery	23
	New Saved	
	Blank Report	
	Standard Report	
	Pivot table Report	
	Load from file OK	Cancel

Click the "Properties" tab of the tool window in the right part of the designer.





Pro	Properties 👻 🖣 🗙				
doc	docum\gt1 Document				
≣ 2↓					
۵	Appearance				
⊳	GraphicsSettings	PerpetuumSoft.Reporting.			
	MasterReport				
	ShowObjectBour	True			
۵	Behaviour				
	DoublePass	False			
	InvalidRenderLer	ThrowException			
۵	Design				
	Name	document 1			
4	Grid Settings				
	GridStep	0,5 cm			
	ShowGrid	True			
	SnapToGrid	True			
۵	Misc				
	DataSources	(Collection)			
	DeleteEmptyPage	False			
	Description				
	MetricUnit	Centimeter			
	Parameters	(Collection)			
	Title				
۵	Render				
	StyleSheet				
۵	Script				
	CommonScript				
	CompilerVersion				
	CustomLanguage				
	GenerateScript				
	Imports				
	ScriptLanguage	VisualBasicNET			
CommonScript					
Determines code of the main script sections. Allows you to declare global script variables a					
2	Prope 🔚 Dat	aSo 📄 Document			

Set property ScriptLanguage = CSharp.



Press the 👤 button in Properties. Select the "page1 Page" item in the combo box.

Properties 👻 🖣				
document1 Document				
document1 Document				
page1 Page				
GraphicsSettings PerpetuumS	Soft.Reporting.[			

You will see properties of the edited page in the "Properties" tab of Tool Window in the right part of the designer.



Set the PaperKind = Custom property. Click the  $\triangleright$  button to the left from the CustomSize property and set the following properties: X = 8,5 cm; Y = 3,5 cm.



Press the "DataBand" button in the Insert tab in the group Container.

File	Home In	sert Layout Vi	ew						
	PageHeader	T TextBox	Picture	<u> S</u> hape	ChartControl	E DataBand	SideBySide	Header	📒 SubReport
New	👔 PageOverlay	T AdvancedText		ZipCode	🥵 Widget	GroupBand	🖶 CrossBand	💳 Detail	🗲 Content
Page	🖹 PageFooter	RTF RichText		BarCode	WinFormsControl	{ BandContainer		Footer	PivotTable
Page		Text	Illustration			Container			

Click on the template area to add DataBand to the template.

Resize the component in order it is fitted the page width.



Pay attention to the zoom value – 150%. Check "Layout Bands" in the View tab in the Show\Hide group. The "Layout Bands" option, which automatically sets size of the bands, should be disabled.

Set DataSource = Products.

#### **Step 16**

Press the "Detail" button in the Insert tab in the group Container.

Illustration

Click on the DataBand area to add Detail band inside DataBand. Change its size so that it covers the whole DataBand area.

IIII BarCode 📑 WinFormsControl 🛛 {📼 BandContainer



### **Step 17**

Page 📄 PageFooter

Page

RTF RichText

Text

Go to the "DataSources" tab.

PivotTable

Container




Drag and drop the "ProductName", "UnitPrice" fields from the dataBand1 tree to the detail1 band. Add one more TextBox element (press the "TextBox" button in the Insert tab in the Text group).



Set property Text = "Price:"

⊿	Appearance	
	Angle	0
	Border	
	ClipText	False
	Fill	[None]
⊳	Font	Arial; 12pt
⊳	Margins	0; 0; 0; 0 cm
	RightToLeft	False
	StringTrimming	Character
	StyleName	
	Text	Price:
	TextAlign	MiddleCenter
	TextFill	[None]
	TextFormat	
	ToolTip	

Locate the TextBox elements in the following way:

# 

# Step 18

Press the "BarCode" button in the Insert tab in the group Illustration.



Place BarCode onto the detail1 band area. Set property CodeType = CodeEAN1.

Pro	perties	<b>-</b> ₽×
bar	Code1 BarCode	•
•	)≵↓   🛅 ▫²	
۵	Appearance	
	Angle	0
	BackColor	Transparent
	BarColor	Black
	BarPoint	10
	BarRatio	2
	Border	
	CalcCheckSumm	False
	Code	123456
	CodeType	CodeEAN13
	Fill	[None]
$\triangleright$	Font	Arial; 12pt
	LabelPosition	BottomCenter
$\triangleright$	Margins	0; 0; 0; 0 cm
$\triangleright$	MicroQRCodeSe	PerpetuumSoft.Framework
$\triangleright$	Pdf417Settings	3; 0; 5; TextMode
$\triangleright$	QRCodeSettings	PerpetuumSoft.Framework
	ShowCheckDigit	False
	ShowLabel	True
	StyleName	
	TextColor	Black
	ToolTip	

To set Barcode code, open the Bindings properties in the "Properties" tab and set barCode1.Code = dataBand1["EAN13"].

1 1 1 1 2 1 3 1 4 1 5 1 6 1	Properties 👻 🕂 🗙
	barCode1 BarCode
📴 Script Editor	
I       □       dataBandi ["EAN13"]         Script Editor       Bands         □       dataBandi ["EAN13"]         □       dataBandi ["EAN13"]         □       Datatem         □       EAN13         □       Detatem         □       ProductName         □       UntPrice         ②       Special Fields	Data Sources Parameters
	Code Snippets OK Cancel

Report template should look as follows:





Save template, close Report Designer.

#### Step 20

Add code to display report to the class constructor. Write RenderComplited event handler of the InlineReportSlot object.

```
public Form1()
        {
            InitializeComponent();
            DataRow row = dataTable1.NewRow();
            row["ProductName"] = "Chai";
            row["UnitPrice"] = "18";
            row["EAN13"] = "0706849000019";
            dataTable1.Rows.Add(row);
            row = dataTable1.NewRow();
            row["ProductName"] = "Chang";
            row["UnitPrice"] = "19";
            row["EAN13"] = "0706849000026";
            dataTable1.Rows.Add(row);
            row = dataTable1.NewRow();
            row["ProductName"] = "Aniseed Syrup";
            row["UnitPrice"] = "10";
            row["EAN13"] = "0706849000033";
            dataTable1.Rows.Add(row);
            inlineReportSlot1.RenderCompleted += new
EventHandler(reportSlot RenderCompleted);
        }
        private void reportSlot RenderCompleted(object sender, EventArgs e)
        {
            using (PerpetuumSoft.Reporting.View.PreviewForm previewForm = new
PerpetuumSoft.Reporting.View.PreviewForm(inlineReportSlot1))
            {
                previewForm.WindowState = FormWindowState.Maximized;
                previewForm.ShowDialog(this);
            }
        }
```

#### Step 21

Add two buttons onto the form (drag and drop "Button" element from the Toolbox onto the form).



Select Button element on the form, edit Text property on the property grid. Set Text = Template for one button and Text = Report for the other one.

Pro	perties	▲ Å ×		Prop	perties	<b>▲</b> Å	×
button1 System.Windows.Forms.Buttc -				but	ton2 System.Wi	ndows.Forms.Butto	-
21 🖉 🖌 🖾					<b>≜</b> ↓ 🔲 🥖		
	ImageIndex	(none) 🔺			ImageIndex	(none)	*
	ImageKey	(none)			ImageKey	(none)	
	ImageList	(none)			ImageList	(none)	
	RightToLeft	No			RightToLeft	No	
C	Text	Template 📋 💽		0	Text	Report 👖 👻	
C	Text TextAlign	Template T		0	Text TextAlign	Report ] ▼ MiddleCenter	)
C	Text TextAlign TextImageRelati	Template T T MiddleCenter Overlay		C	Text TextAlign TextImageRelati	Report ] - MiddleCenter Overlay	)
C	Text TextAlign TextImageRelati UseMnemonic	Template j T MiddleCenter Overlay True		C	Text TextAlign TextImageRelati UseMnemonic	Report I - MiddleCenter Overlay True	)
C	Text TextAlign TextImageRelati UseMnemonic UseVisualStyleB	Template T Template T Template T Template T Template T Template True			Text TextAlign TextImageRelati UseMnemonic UseVisualStyleB	Report     I     ▼       MiddleCenter     Overlay       True     True	)
C	Text TextAlign TextImageRelati UseMnemonic UseVisualStyleB UseWaitCursor	Template T T		C	Text TextAlign TextImageRelati UseMnemonic UseVisualStyleB UseWaitCursor	Report     I     ▼       MiddleCenter     Overlay       True       True       False	

Create Click event handlers for the buttons – double click on the Button element on the form. Add code launching report generation to the event handler. For example, use the following code:

priv {	vate	void	but	ton1	_Click	(objec	t	sender,	EventArgs	e)
}	inli	neRep	port	Slot	1.Desi	gnTemp	lā	ate();		
priv {	vate	void	but	ton2	_Clic}	(objec	t	sender,	EventArgs	e)
}	inli	neRep	port	Slot	1.Prep	oare();				

#### **Step 22**

Click "Start Debugging" on the Visual Studio toolbar in order to run application.

File	Edit	View	Refactor	Project	Build	Debug	Team	Data	Tools	Test	Window	Help	
16	-	- 🞽	🖬 🗊   d	k 🖻 🛍	<b>) ?</b> .	· (°' - (	<b>F</b> - E,		Debug		- 🖄		- 🗠 🛃 🖓 🖓 🖓 א א א א א א א א א א א א א א א
	- 🔁 👌	A.	17   🛊 🕯	) i i i i i i i i i i i i i i i i i i i	2   🗆	Ş 📮	Şi 🗛 🗸	23	-, ,				

Click the "Report" button in the opened application window.



Generated report will open with Report Viewer.



Page 2 of 3 • Zoom 150%

In order to edit template, close Report Viewer and press "Template" on the application form.



Similar application sample is located in the following folder "\Perpetuum Software\Net ModelKit Suite\ Samples\Report Sharp-Shooter\CSharp\LabelExample".

Similar sample in the Samples Center is Report Controls\Basic\Bar codes.



# Picture

Template of a report containing employees' photos.

#### Step 1

Create new project in Microsoft Visual Studio. Select New\Project from the main menu.



Select Windows Forms Application, set project name – "Pictures", set directory to save the project to.

New Project					2 <b>X</b>
Recent Templates		.NET Fra	mework 4   Sort by: Default	▼ III [III]	Search Installed Templates
Installed Templates  Visual C#		<b>_c</b> ≉	Windows Forms Application	Visual C#	Type: Visual C#
Windows Web		< C +	WPF Application	Visual C#	Windows Forms user interface
Office Cloud Perperting			Console Application	Visual C#	
<ul> <li>SharePoint</li> <li>Silverlight</li> </ul>		rrc#	Class Library	Visual C#	
Test WCF		°°C≉	WPF Browser Application	Visual C#	
Workflow Other Languages		C‡	Empty Project	Visual C#	
<ul> <li>Other Project Types</li> <li>Database</li> <li>Tast Projects</li> </ul>		<mark>c</mark> #	Windows Service	Visual C#	
Online Templates		<b>€C</b> #	WPF Custom Control Library	Visual C#	
		<b>€C</b>	WPF User Control Library	Visual C#	
		<mark>≣</mark> C [#]	Windows Forms Control Library	Visual C#	
Name:	Pictures				
Location:	c:\.	)	documents\visual studio 2010\Projects	•	Browse
Solution name:	Pictures				<ul> <li>Create directory for solution</li> <li>Add to source control</li> </ul>
					OK Cancel

Change the project properties. Select the  $\ensuremath{\mathsf{Project}}\xspace\ensuremath{\mathsf{Project}}\xspace$  item in the main menu.



Select the Target framework\.NET Framework4 item in the Application tab.

Application	Configuration: N/A	Dlatf
Build	Configuration.	FIGLI
Build Events	Assembly name:	
build Events	SimpleReport	
Debug	Target framework:	
Resources	.NET Framework 4 Client Profile	-
Services	.NET Framework 2.0 .NET Framework 3.0	
Settings	.NET Framework 3.5 .NET Framework 3.5 Client Profile	
Reference Paths	.NET Framework 4 .NET Framework 4 Client Profile Install other frameworks	
		_

Press the "Yes" button in the opened window.



Target Fra	mework Change
?	Changing the Target Framework requires that the current project be closed and then reopened. Any unsaved changes within the project will be automatically saved. Changing Target Framework may require manual modification of project files in order to build. Are you sure you want to change the Target Framework for this project?
	Yes No Help

Open main form of the application by double click on the "Form1.cs" in the Solution Explorer.



Click "DataSet" element on the Toolbox and place DataSet onto the form.



Select "Untyped dataset", click "OK"



The component is available in the lower part of the window.



#### Step 4

Select dataSet1 in the form editor. On the property grid, select Tables property, click button in order to open property editor.

Properties 🔻 🕂 🕄									
dataSet1 System.Data.DataSet									
┋┋Ѯ↓ 🔳 🥖 🖻									
	Namespace		*						
	Prefix								
	Relations	(Collection)							
	Tables	(Collection)							
4	Design	N1							
	(Name)	dataSet1							
	GenerateMemb	True	-						
	Modifiers	Private	-						
4	Misc								
	EnforceConstrai	True							
	RemotingForma	Xml	-						
Tables The collection that holds the tables for this DataSet.									

Click "Add" in order to add table. Set property TableName = Employee.

Tables Collection Editor				?	x
Members:	E	mployee Properties:			
0 Employee		⊿ Data			
		ApplicationSetting			
		Columns	(Collection)		
		Constraints	(Collection)		
		DisplayExpression			
		MinimumCapacity	50		
		Namespace			Ξ
		Prefix			
		PrimaryKey	DataColumn[]		
		TableName	Employee		
		⊿ Design		_	
		(Name)	dataTable1		
	X	GenerateMember	True		-
		Modifiers	Private		
Add		⊿ Misc			Ŧ

Select Columns property, click button in to open Columns Collection Editor. Click "Add" to add a new column. Add two columns. Set ColumnName properties to "EmployeeName" and "Picture". For the Picture column, select DataType property, click button in, select "System.Byte[]" value in the list.

Columns Collection Editor				2		×
Members:	I	Pict	ure Properties:			
0 EmployeeName		۵	Data			•
1 Picture		$\triangleright$	(ApplicationSetting:			
			AllowDBNull	True		
			AutoIncrement	False		
			AutoIncrementSeed	0		
			AutoIncrementStep	1		=
			Caption	Picture		
		(	ColumnName	Picture		
		U	DataType	System.Byte[]	-	
			DateTimeMode	UnspecifiedLocal	_	
			DefaultValue	<dbnull></dbnull>		
			Expression			
	X		MaxLength	-1		
			Namespace			
Add			Prefix			-
				Clo	se	

Right click on the form and select "View Code" in the context menu to view code.

Form1.cs [Design]* ×		
- Form1		
	F	View Code F7
	8	Lock Controls
	ß	Paste Ctrl+V
	<b>7</b>	Properties

Add the following code to the class constructor in order to fill data source.

```
public Form1()
        {
            InitializeComponent();
            DataRow row = dataTable1.NewRow();
            row["EmployeeName"] = "Nancy Davolio";
            Image img =
Image.FromFile("C:\\data\\pictures\\NancyDavolio.png");
            Byte[] pic = imageToByteArray(img);
            row["Picture"] = pic;
            dataTable1.Rows.Add(row);
            row = dataTable1.NewRow();
            row["EmployeeName"] = "Andrew Fuller";
            img = Image.FromFile("C:\\data\\pictures\\AndrewFuller.png");
            pic = imageToByteArray(img);
            row["Picture"] = pic;
            dataTable1.Rows.Add(row);
            row = dataTable1.NewRow();
            row["EmployeeName"] = "Robert King";
            img = Image.FromFile("C:\\data\\pictures\\RobertKing.png");
            pic = imageToByteArray(img);
            row["Picture"] = pic;
            dataTable1.Rows.Add(row);
        }
//Function designed to transform image to byte code:
        public byte[] imageToByteArray(System.Drawing.Image imageIn)
        {
            System.IO.MemoryStream ms = new System.IO.MemoryStream();
            imageIn.Save(ms,System.Drawing.Imaging.ImageFormat.Png);
            return ms.ToArray();
        }
```

Step 7

Get back to the application form by clicking the "Form1.cs[Design]" tab.



Click on the "ReportManager" on the Toolbox and place this component onto the form. This component is designed to store collections of report templates and data sources.



The component is available in the lower part of the window.



#### Step 8

On the property grid, initialize OwnerForm property of the ReportManager by selecting the form it is located on.



Double click on ReportManager to open ReportManager editor.

Form1.cs Form1.cs [Design] ×		•
Form1	X	
	ReportManager editor	
	Reports Data sources	
	La	
	Add Delete Run Designer	
		OK Cancel
🖻 dataSet1 🚺 reportManager1		

Go to "Data Sources" tab, click "Add", set data source name – "Employee", select data source value – "dataSet1.Employee".

Reportivianager editor	
Reports Data sources	
Data bindings list	
Edit object name	
Name Employee	
	OK Cancel
Add Edit Delete	OK Cancel
Add Edit Delete	OK Cancel

Go to "Reports" tab, click "Add" and select "InlineReportSlot".

ReportManager editor	
Reports Data sources	
	OK Cancel
UrlReportSlot	

Set name of the report in the property ReportName – "Pictures". Click "Run Designer" in order to open template editor - Report Designer.



**Report Name** 

#### Step 12

Add

Delete

Create new empty template – select File\New in the main menu.

Run Designer



Select "Blank Report" in the Wizards Gallery and click "OK".

ΟK

Cancel

•	PERPETUUM www.perpetuumsoft.com
	🕎 Wizards Gallery
	New Saved
	Blank Report
	Standard Report
	Pivot table Report
	Load from file OK Cancel

Click the "Properties" tab of the tool window in the right part of the designer.



23

You will see properties of the edited template on the "Properties" tab

Pro	perties	<b>-</b> † ×					
doc	um gt1 Docum	ent 🔹					
4	Appearance						
⊳	GraphicsSettings	PerpetuumSoft.Reporting.l					
	MasterReport						
	ShowObjectBour	True					
⊿	Behaviour						
	DoublePass	False					
	InvalidRenderLer	ThrowException					
4	Design						
	Name	document1					
4	Grid Settings						
	GridStep	0,5 cm					
	ShowGrid	Irue					
	Snap ToGrid	Irue					
4	MISC	(C. II. II. )					
	Data Sources						
	DetectmptyPage	raise					
	Metrielleit	Continutor					
	Parametere	(Collection)					
	Talallieleis	(Collection)					
	Render						
1	Style Sheet						
4	Script						
	Common Script						
	CompilerVersion						
	CustomLanguage						
	GenerateScript						
	Imports						
	ScriptLanguage	VisualBasicNET					
-							
Co	mmonScript						
Det	ermines code of th	e main script sections.					
Allo	ws you to declare	global script variables a					
~	Prope 🔁 Dat	aSo 🔚 Document					
-	riope 📇 Dat	Boom Document					

Set property ScriptLanguage = CSharp.



Press "DataBand" button on the Insert tab in the group Container.



Click on the template area to add DataBand band to the template.

Set data source in the property DataSource = Employee.

Properties	<b>→</b> ₽ ×
dataBand1 DataBar	nd 💌
2 ¢ 🖬 🔁	
Appea ance	
StyleName	
ToolTip	
⊿ Data	
DataSource	Employee 🖃
FilterExpression	
InstanceCount	0
Sort	(Collection)
Tag	
Totals	(Collection)

On the "Properties" tab, set CanShrink and CanGrow properties to "True".

۵	Render	
- (	CanGrow	True
	CanShrink	True 💌
	NewColumnAfter	False
	NewColumnBefor	False
	NewPageAfter	False
	NewPageBefore	False
	Visible	True

#### Step 15

Press "Detail" button on the Insert tab in the group Container.

File	Home	Insert	Layout Vie	ew						
	PageHeade	er T	TextBox		🔽 Shape	ChartControl	E DataBand	SideBySide	Header	SubReport
New	PageOverla	ay 🔳	AdvancedText	Picture	ZipCode	🎇 Widget	{ GroupBand	CrossBand	🔲 Detail	Content
Page	📔 PageFoote	r RTF	RichText		BarCode	WinFormsControl	{🔳 BandContainer		Footer	PivotTable
	Page		Text		Illust	ration		Containe	r	



Click on the DataBand area to add Detail band inside DataBand.

											 	1
dataBand1:DataBand DataSo	dataBand1:DataBand_DataSource = Employee											
detail1:Detail										1		
end of dataBand1												

On the "Properties" tab, set CanShrink and CanGrow properties to "True".

# Step 16

Go to "DataSources" tab.





Drag and drop "EmployeeName" field from the dataBand1 tree o the detail1 band. As a result TextBox is created. Script loading data from the data source is added to the Value property.

				_			
dataBand1:DataBand_DataSource = New_Name							
detail1:Detail							
<databand1< th=""><th></th><th></th><th></th><th></th><th></th><th></th><th></th></databand1<>							
["EmployeeName"]>							
end of dataBand1							

Press "Picture" button on the Insert tab in the group Illustration.



Click on the Detail band area to add Picture element inside Detail. Change size of the bands and the Picture element. Set SizeMode = Normal on the "Properties" tab.



Click "Bindings" button, set Image property to "dataBand1["Picture"]".



# **Step 18**

Add one more Detail band, add there Picture element. Double click on the element to open dialog to select an image. Select picture and click "OK".

#### Report template should look as follows:



#### **Step 19**

Save template, close Report Designer.

#### Step 20

Add code to display report to the class constructor. Write RenderComplited event handler of the InlineReportSlot object.

```
public Form1()
        {
            InitializeComponent();
            DataRow row = dataTable1.NewRow();
            row["EmployeeName"] = "Nancy Davolio";
            Image img =
Image.FromFile("C:\\data\\pictures\\NancyDavolio.png");
            Byte[] pic = imageToByteArray(img);
            row["Picture"] = pic;
            dataTable1.Rows.Add(row);
            row = dataTable1.NewRow();
            row["EmployeeName"] = "Andrew Fuller";
            img = Image.FromFile("C:\\data\\pictures\\AndrewFuller.png");
            pic = imageToByteArray(img);
            row["Picture"] = pic;
            dataTable1.Rows.Add(row);
            row = dataTable1.NewRow();
            row["EmployeeName"] = "Robert King";
            img = Image.FromFile("C:\\data\\pictures\\RobertKing.png");
            pic = imageToByteArray(img);
            row["Picture"] = pic;
            dataTable1.Rows.Add(row);
            inlineReportSlot1.RenderCompleted += new
EventHandler(reportSlot RenderCompleted);
        }
```

```
private void reportSlot_RenderCompleted(object sender, EventArgs e)
{
    using (PerpetuumSoft.Reporting.View.PreviewForm previewForm = new
PerpetuumSoft.Reporting.View.PreviewForm(inlineReportSlot1))
    {
        previewForm.WindowState = FormWindowState.Maximized;
        previewForm.ShowDialog(this);
     }
}
```

Add two buttons onto the form (drag and drop "Button" element from the Toolbox onto the form).

Toolbox	c	▼ +Þ X
⊳ Olap	ModelKit	
▷ Char	t ModelKit	
⊳ Instr	umentation ModelKit	
▷ Repo	ort Sharp-Shooter	
⊳ All W	/indows Forms	
⊿ Com	imon Controls	
k	Pointer	
ab	Button	N
	CheckBox	5
	CheckedListBox	
= 0	ComboBox	
	DateTimeDicker	

Select Button element on the form, edit Text property on the property grid. Set Text = Template for one button and Text = Report for the other one.

Pro	perties	<b>→</b> 井 >	C I	Pro	perties		γĻΧ
but	t <b>ton1</b> System.Wi	ndows.Forms.Buttc		but	t <b>ton2</b> System.Wi	ndows.Forms.B	uttc 🕶
•	<b>≵↓</b> 🔲 🖋				<b>≵</b> ↓ 📃 🖋		
	ImageIndex	(none) 4			ImageIndex	(none)	*
	ImageKey	(none)			ImageKey	(none)	
	ImageList	(none)			ImageList	(none)	
	RightToLeft	No	1		RightToLeft	No	_
C	Text	Template 📋 🖵		C	Text	Report ]	-)
	TextAlign	MiddleCenter			TextAlign	MiddleCenter	
	TextImageRelati	Overlay			TextImageRelati	Overlay	
	UseMnemonic	True			UseMnemonic	True	
	UseVisualStyleB	True			UseVisualStyleB	True	
	UseWaitCursor	False			UseWaitCursor	False	

Create Click event handlers for the buttons – double click on the Button element on the form. Add code launching report generation to the event handler. For example, use the following code:

```
private void button1_Click(object sender, EventArgs e)
{
    inlineReportSlot1.DesignTemplate();
}
```



Click "Start Debugging" on the Visual Studio toolbar in order to run application.



Click the "Report" button in the opened application window.



Generated report is viewed in the Report Viewer.



Robert King

To edit report template, close Report Viewer and click "Template" on the application form.



Page 1 of 1 + Zoom 100%

Similar sample in the Samples Center is Report Controls\Basic\Pictures.

- 0 -



# Shape

Template of a report containing various shapes.

#### Step 1

Create new project in Microsoft Visual Studio. Select New\Project from the main menu.



Select Windows Forms Application, set project name – "Shape", set directory to save the project to.

New Project					? ×		
Recent Templates		.NET Fra	mework 4 🔹 Sort by: Default	▼ III (III)	Search Installed Templates		
Installed Templates  Visual C#		<b>_c</b> ≉	Windows Forms Application	Visual C#	<b>Type:</b> Visual C# A project for creating an application with a		
Windows Web			WPF Application	Visual C#	Windows Forms user interface		
▷ Office Cloud		CI CI	Console Application	Visual C#			
<ul> <li>SharePoint</li> <li>Silverlight</li> </ul>		<b>c</b> ♯	Class Library	Visual C#			
Test WCF		°°C♯	WPF Browser Application	Visual C#			
Workflow ▷ Other Languages		C#	Empty Project	Visual C#			
<ul> <li>Other Project Type</li> <li>Database</li> </ul>	25	_c#	Windows Service	Visual C#			
<ul> <li>Test Projects</li> <li>Online Templates</li> </ul>		<b>●C</b> #	WPF Custom Control Library	Visual C#			
		<b>₹C</b> #	WPF User Control Library	Visual C#			
		<mark>⊞</mark> c‡	Windows Forms Control Library	Visual C#			
Name:	ne: Shape						
Location:	c:\	-	\documents\visual studio 2010\Projects	Browse			
Solution name:	Shape				<ul> <li>Create directory for solution</li> <li>Add to source control</li> </ul>		
					OK Cancel		

Change the project properties. Select the Project\Shape Properties... item in the main menu.

oo S	<ul> <li>Shape - Microsoft Visual Studio (Administrator)</li> </ul>										
File	E	dit	View	Proje	ect	Build	Debug	Team	Data	Format	Tools
IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	] - Fo	iii  ≓ rm1	view ▼ 🚰 ♣ 릨 .cs [Des Form1		Ad Ad Ad Ad Ad	Id Wind Id User ( Id Comp Id Class, Id New I Id Existir	ows Form Control conent  tem	1	Data	Shift+A Ctrl+Shi Shift+A	lt+C ift+A lt+A
rces 🕅 Toolbox					Exc Sh Ad Set	clude Fro ow All F Id Refere Id Servic t as Stari	om Projec iles ence :e Referer tUp Proje	ct ice ct			
				44	Re	fresh Pro	oject Too	lbox Iten	ns		
					Sh	ape Pro	perties				2

Select the Target framework\.NET Framework4 item in the Application tab.

Application	Configuration: N/A
Build	
Build Events	Assembly name:
	SimpleReport
Debug	Target framework:
Resources	.NET Framework 4 Client Profile 🔹
Services	.NET Framework 2.0 .NET Framework 3.0
Settings	.NET Framework 3.5 .NET Framework 3.5 Client Profile
Reference Paths	.NET Framework 4 NET Framework 4 Client Profile

Press the "Yes" button in the opened window.



Target Fran	Target Framework Change							
?	Changing the Target Framework requires that the current project be closed and then reopened. Any unsaved changes within the project will be automatically saved. Changing Target Framework may require manual modification of project files in order to build. Are you sure you want to change the Target Framework for this project?							
	Yes No Help							

Open main form of the application by double click on the "Form1.cs" in the Solution Explorer.



Click on the "ReportManager" on the Toolbox and place this component onto the form. This component is designed to store collections of report templates and data sources.



The component is available in the lower part of the window.



On the property grid, initialize OwnerForm property of the ReportManager by selecting the form it is located on.



# Step 5

Double click on ReportManager to open ReportManager editor.

Form1.cs [Design]* ×			
🖳 Form1			
	ReportManager editor	1000	
	Reports Data sources		
		<b>2</b> ↓   □	
	Add Delete	Run Designer	
	FileReportSlot	5	OK Cancel
	UriReportSlot		

Go to "Reports" tab, click "Add" and select "InlineReportSlot". Set name of the report in the property ReportName – "Shape". Click "Run Designer" in order to open template editor - Report Designer.



Create new empty template – select File\New from the main menu.



Select "Blank Report" in the Wizards Gallery and click "OK".

•	PERPETUUM software	www.perpetuumsoft.com			
	📴 Wizards Gall	ery			
	New Saved				
	Blank Report				
	Standard Rep	ort			
	Pivot table Re	port			
			Load from file	ОК	Cancel

23

# Step 8

Click the "Properties" tab of the tool window in the right part of the designer.





Properties 👻 🖣 🗙						
docum\gt1 Document						
4	Appearance					
⊳	GraphicsSettings	PerpetuumSoft.Reporting.l				
	MasterReport					
	ShowObjectBour	True				
۵	Behaviour					
	DoublePass	False				
	InvalidRenderLer	ThrowException				
۵	Design					
	Name	document1				
۵	Grid Settings					
	GridStep	0,5 cm				
	ShowGrid	True				
	Snap ToGrid	Irue				
4	Misc	(C. H. H. )				
	DataSources	(Collection)				
	DeleteEmptyPage	False				
	Description	Continuetor				
	Metric Unit	Centimeter (Cellestice)				
	Tala	(Collection)				
	Bender					
Ľ	Style Sheet					
4	Script					
Ľ	Common Script					
	CompilerVersion					
	CustomI anguage					
	GenerateScript					
	Imports					
	ScriptLanguage	VisualBasicNET				
Common Script Determines code of the main script sections. Allows you to declare global script variables a						
: Ť	Hope Boar	Boom Document				

Set property ScriptLanguage = CSharp.


Press the "Detail" button in the Insert tab in the group Container.

File Home In	sert Layout Vi	ew				_	_
New PageHeader New PageOverlay Page PageFooter Page	T TextBox AdvancedText RTF RichText Text	Picture ArCode	ChartControl  ChartControl  Widget  WinFormsControl  tration	E DataBand GroupBand BandContainer	SideBySide	Header Detail	SubReport Content PivotTable

Click on the template area to add band to the template. Change the size of the band by stretching its border.



#### Step 10

Press the "Shape" button in the Insert tab in the group Illustration.



Click on the Detail band to add the Shape element inside Detail. Change the shape size. Select the ShapeStyle property, click the 🔽 button, select "StarShape".



Click the  $\triangleright$  button to the left from the ShapeStyle property to open additional options. Set Points = 20, InternalRadius = 0,2.

Pro	perties	<b>-</b> ₽×
sha	pe1 Shape	•
	〕≵↓ │ <mark>ा</mark> ा ▫  ₂ │	
⊿	Appearance	
	Fill	[None]
$\triangleright$	Line	O Solid Black
$\triangleright$	Shadow	Shadow
⊿	ShapeStyle	StarShape
	Internal Radii	0,2000000298023224
	KeepRound	False
	Points	20
	StartAngle	0
3	StyleName	
	ToolTip	

Select the Fill property, click the 🔽 button, select "SphericalFill", set two colors.

i 15 i 16	i 17 i 18 i	19 🕎	Properties		, đ	×
		- A	shape1 Shape			•
			2   <b>1</b>			
			<ul> <li>Appearance</li> <li>Fill</li> </ul>	SphericalFill		•
	🔲 /// 📕					
Start Color —		Delta —				
Color	#92CDDC -	0,00	-			
Transparency		Angle —				
End Color —						
Color	#7030A0 -					
Transparency						
			2			
ОК	Cancel					

Click the button to the left from the Shadow property, set DX = 0.2 cm, DY = 0.1 cm, Fill = SolidFill.

Properties	<b>-</b> ₽×						
shape1 Shape							
┋2↓ 🗊 ▫₃							
Appearance							
⊳ Fill 😼	SphericalFill						
▷ Line	0 Solid Black						
A Shadow	Shadow						
DX	0,2 cm						
DY	0,1 cm						
⊳ Fill	SolidFill						
ShapeStyle	StarShape						
StyleName							
ToolTip							

Click the  $\triangleright$  button to the left from the Line property, set Color = Gray, Style = Dash, Width = 1.



The report template should look as follows:



### Step 11

Save template, close Report Designer.

### Step 12

Right click on the application form and select "View Code" in the context menu to view code.

F	PER	PETUUM software	www.per	petuun	nsoft.com		
	F	orm1.cs [Desig	jn]* ×				
		🖳 Form1				• ×	
				F	View Code	F7	
				۵	Lock Controls	63	
				ß	Paste	Ctrl+	v
				3	Properties		
				_			
							-6

Add code to display report to the class constructor. Write RenderComplited event handler of the InlineReportSlot object.

```
public Form1()
{
    InitializeComponent();
    inlineReportSlot1.RenderCompleted += new
EventHandler(reportSlot_RenderCompleted);
    }
    private void reportSlot_RenderCompleted(object sender, EventArgs e)
    {
        using (PerpetuumSoft.Reporting.View.PreviewForm previewForm = new
PerpetuumSoft.Reporting.View.PreviewForm(inlineReportSlot1))
        {
            previewForm.WindowState = FormWindowState.Maximized;
            previewForm.ShowDialog(this);
        }
    }
}
```

#### **Step 13**

Get back to the application form by clicking "Form1.cs [Design]" tab.

Form1.cs* ×	Form1.cs [Design]*
😤 Shape.Forr	m1
⊡using	System;
using	System.Collectior
using	System.ComponentN
using	System.Data:

Add two buttons onto the form (drag and drop "Button" element from the Toolbox onto the form).



Select Button element on the form, edit Text property on the property grid. Set Text = Template for one button and Text = Report for the other one.

Properties	<b>→</b> ‡ 3	×	Prop	perties		ч×
button1 System.Wi	ndows.Forms.Buttc	-	but	ton2 System.Wi	ndows.Forms.B	Buttc 🝷
2↓ 3			<b>≜</b> ↓ 🔲 🥖			
ImageIndex	(none)	<b>~</b>		ImageIndex	(none)	*
ImageKey	(none)			ImageKey	(none)	
ImageList	(none)			ImageList	(none)	
RightToLeft	No			RightToLeft	No	
Text	Template 📋 💌	F	0	Text	Report ]	-)
TextAlign	MiddleCenter			TextAlign	MiddleCenter	
TextImageRelati	Overlay			TextImageRelati	Overlay	
UseMnemonic	True			UseMnemonic	True	
UseVisualStyleB	True			UseVisualStyleB	True	
UseWaitCursor	False			UseWaitCursor	False	

Create Click event handlers for the buttons – double click on the Button element on the form. Add code launching report generation to the event handler. For example, use the following code:

```
private void button1_Click(object sender, EventArgs e)
{
    inlineReportSlot1.DesignTemplate();
}
private void button2_Click(object sender, EventArgs e)
{
    inlineReportSlot1.Prepare();
}
```

#### **Step 14**

Click "Start Debugging" on the Visual Studio toolbar in order to run application.

File	Edit	View	Refactor	Project	Build	Debug	Team	Data	Tools	Test	Window	Help	
16	-	- 🞽	🖬 🥥   J	k 🖻 🛍	, <b>'</b> ,	· (° · .	<b>-</b>		Debug		·   🏄		-   🖓 😤 🎲 🖄 🏷 🔜 🗳 - 💡
1	- 🔁 🎙	t_ A≳	17   🛊 🕯		2   🗆	<b>P Q</b>	Şi 🗛 🗸	2.3	-, ,				

Click the "Report" button in the opened application window.



Generated report is viewed in the Report Viewer.



To edit report template, close Report Viewer and click "Template" on the application form.





Similar sample in the Samples Center is Report Controls \Basic Shapes.



# **Styles**

Template of a report containing a list of customers with address, contact person and phone. Different styles are applied to even and odd rows to make easier to view the report.

### Step 1

Create new project in Microsoft Visual Studio. Select New\Project from the main menu.



Select Windows Forms Application, set project name – "Style", set directory to save the project to.

New Project					? <b>×</b>
Recent Templates		.NET Fra	mework 4 🔹 Sort by: Default	■ ■ ■	Search Installed Templates
Installed Templates		<b></b> ¢#	Windows Forms Application	Visual C#	Type: Visual C# A project for creating an application with a
Windows Web		<b>**</b>	WPF Application	Visual C#	Windows Forms user interface
▷ Office Cloud			Console Application	Visual C#	
Reporting ▶ SharePoint Silverlight		rc‡	Class Library	Visual C#	
Test WCF		[∞] c≉	WPF Browser Application	Visual C#	
Workflow Other Languages		C#	Empty Project	Visual C#	
<ul> <li>Other Project Type</li> <li>Database</li> </ul>	es	<b>_</b> c [#]	Windows Service	Visual C#	
Test Projects Online Templates		•0	WPF Custom Control Library	Visual C#	
		<b>•</b> C [#]	WPF User Control Library	Visual C#	
		<mark>≣</mark> C‡	Windows Forms Control Library	Visual C#	
Name:	Style				
Location:	c:\		\documents\visual studio 2010\Projects	•	Browse
Solution name:	Style				<ul><li>Create directory for solution</li><li>Add to source control</li></ul>
					OK Cancel

Change the project properties. Select the Project\Style Properties... item in the main menu.

oo S	tyl	e - N	licrosof	t Visua	al St	tudio (A	dministra	ator)			
File	E	dit	View	Proje	ect	Build	Debug	Team	Data	Format	Tools
Fi 🛄 💀 👔 Data Sources 🔆 Toolb	[ ] - ] - Fo	idit Èi *⊳ rm1	View  View  Control  Control	Proje	Ad Ad Ad Ad Ad Ad Exc Sh	Build Id Wind Id User ( Id Comp Id Class. Id New I Id Existin clude Fri ow All F	Debug ows Form Control oonent item ng Item om Projec iles ence	Team h	Data	Format Shift+A Ctrl+Shi Shift+A	Tools lt+C ift+A lt+A
x				÷7	Ad Set Re Sty	ld Servic t as Stari fresh Pro <mark>/le Prop</mark>	e Referer tUp Proje oject Too <mark>erties</mark>	ice ct Ibox Iten	ns		

Select the Target framework\.NET Framework4 item in the Application tab.

Application	Configuration: N/A
Build	
Build Events	Assembly name:
Dund Events	SimpleReport
Debug	Target framework:
Resources	.NET Framework 4 Client Profile
Services	.NET Framework 2.0 .NET Framework 3.0
Settings	.NET Framework 3.5 .NET Framework 3.5 Client Profile
Reference Paths	.NET Framework 4 Client Profile
	· · · · ·

Press the "Yes" button in the opened window.



Target Fran	mework Change
?	Changing the Target Framework requires that the current project be closed and then reopened. Any unsaved changes within the project will be automatically saved. Changing Target Framework may require manual modification of project files in order to build. Are you sure you want to change the Target Framework for this project?
	Yes No Help

Open main form of the application by double click on the "Form1.cs" in the Solution Explorer.



Click "DataSet" element on the Toolbox and place DataSet onto the form.



Select "Untyped dataset", click "OK"



The component is available in the lower part of the window.



#### Step 4

Select dataSet1 in the form editor. On the property grid, select Tables property, click button  $\Box$  in order to open property editor.

Pro	perties	<b>→</b> Ĥ	×					
dat	dataSet1 System.Data.DataSet 🔹							
•	2≣ 2↓ 🔲 🖋 🖾							
	Namespace		*					
	Prefix							
	Relations	(Collection)						
	Tables	(Collection)						
4	Design	N1						
	(Name)	dataSet1						
	GenerateMemb	True	-					
	Modifiers	Private	-					
4	Misc							
	EnforceConstrai	True						
	RemotingForma	Xml	-					
Tables The collection that holds the tables for this DataSet.								

Click "Add" in order to add table. Set property TableName = Customers.

Tables Collection Editor					8
Members:		Cus	tomers Properties:		
0 Customers		⊿	Data		
		$\triangleright$	(ApplicationSetting		
			Columns	(Collection)	
			Constraints	(Collection)	
			DisplayExpression		
			MinimumCapacity	50	
			Namespace		
			Prefix		
			PrimaryKey	DataColumn[]	-
			TableName	Customers	
		۵	Design		
			(Name)	dataTable1	
	×		GenerateMember	True	
			Modifiers	Private	
Add		Δ	Misc		

Select Columns property, click button  $\overline{\mbox{lm}}$  in order to open property editor.

Tables Collection Editor					? ×
Members:		Cus	tomers Properties:		
0 Customers		۵	Data		*
		Þ	(ApplicationSetting:		
		(	Columns	(Collection)	)
			Constraints	(Collection)	
			DisplayExpression		
			MinimumCapacity	50	
			Namespace		E
			Prefix		
			PrimaryKey	DataColumn[]	
			TableName	Customers	
		۵	Design		
			(Name)	dataTable1	
	X		GenerateMember	True	
	••		Modifiers	Private	
Add		۵	Misc		-
					Close

Click "Add" to add a new column. Add four columns. Set ColumnName property to "CompanyName", "Address", "ContactName", "Phone" correspondingly.

olumns Collection Editor				L.	
Members:		Pho	one Properties:		
0 CompanyName		۵	Data		
1 Address		$\triangleright$	(ApplicationSetting:		
2 ContactName			AllowDBNull	True	
3 Phone			AutoIncrement	False	
			AutoIncrementSeed	0	
			AutoIncrementStep	1	
			Caption	Phone	
		(	ColumnName	Phone	
			DataType	System.String	
			DateTimeMode	UnspecifiedLocal	
			DefaultValue	<dbnull></dbnull>	
			Expression		
	X		MaxLength	-1	
			Namespace		
Add			Prefix		

Right click on the form and select "View Code" in the context menu to view code.

Form1.cs [Design]*	×		
🖳 Form1			
		View Code	F7
	•	Lock Controls	15
		Paste	Ctrl+V
	1	Properties	
		0	

Add the following code to the class constructor in order to fill data source.

```
public Form1()
{
    InitializeComponent();
    DataRow row = dataTable1.NewRow();
    row["CompanyName"] = "Alfreds Futterkiste";
```

```
row["Address"] = "Obere Str. 57";
row["ContactName"] = "Maria Anders";
row["Phone"] = "030-0074321";
dataTable1.Rows.Add(row);
row = dataTable1.NewRow();
row["CompanyName"] = "Ana Trujillo Emparedados y helados";
row["Address"] = "Avda. de la Constitución 2222";
row["ContactName"] = "Ana Trujillo";
row["Phone"] = "(5) 555-4729";
dataTable1.Rows.Add(row);
row = dataTable1.NewRow();
row["CompanyName"] = "Ernst Handel";
row["Address"] = "Kirchqasse 6";
row["ContactName"] = "Roland Mendel";
row["Phone"] = "7675-3425";
dataTable1.Rows.Add(row);
row = dataTable1.NewRow();
row["CompanyName"] = "Toms Spezialitäten";
row["Address"] = "Luisenstr. 48";
row["ContactName"] = "Karin Josephs";
row["Phone"] = "0251-031259";
dataTable1.Rows.Add(row);
```

}

Get back to the application form by clicking the "Form1.cs[Design]" tab.



Click on the "ReportManager" on the Toolbox and place this component onto the form. This component is designed to store collections of report templates and data sources.



The component is available in the lower part of the window.



On the property grid, initialize OwnerForm property of the ReportManager by selecting the form it is located on.

Prop	perties	<b>→</b> ‡	×
гер	ortManager1 P	erpetuumSoft.Repo	•
•	<b>≵</b> ↓ 🔲 🥖		
	DataSources	Objects	*
4	Design		
	(Name)	reportManager1	
	GenerateMemb	True	
	Modifiers	Private	
4	Misc		Ξ
	About	(c) 2002-2011 Perp	
$\triangleright$	OwnerForm	Form1 💌	)
-	Reports	(Collection)	-

#### **Step 9**

Double click on ReportManager to open ReportManager editor.

Form1.cs Form1.cs [	Design] ×	Z					
		ReportManag	er editor				l
	-	ß					
		Add	Delete	Run Designer	]		
		L				OK Cancel	

Go to "Data sources" tab, click "Add", set data source name – "Customers", select data source value – "dataSet1.Customers".



Add

Edit

Go to "Reports" tab, click "Add" and select "InlineReportSlot".

Delete

OK

Cancel

Form1.cs [Design]* ×			
🖳 Form1			
	ReportManager editor		
		<mark>?≣ </mark> 2↓ 🖻	
	Add Delete	Run Designer	
	FileReportSlot		OK Cancel
	UrlReportSlot	×	
	L	_	

6

Set name of the report in the property ReportName – "List". Click "Run Designer" in order to open template editor - Report Designer.



Create new empty template – select File\New from the main menu.



Select "Blank Report" in the Wizards Gallery and click "OK".

6	PERPETUUM www.perpetuumsoft.com software	
	📴 Wizards Gallery	23
	New Saved	
	Blank Report	
	Standard Report	
	Pivot table Report	
	Load from file OK	Cancel

Click the "Properties" tab of the tool window in the right part of the designer.





Pro	perties	<b>→</b> Å ×
doc	um gt1 Docum	ent 🔹
	]⊉↓ 🖻	
4	Appearance	
⊳	GraphicsSettings	PerpetuumSoft.Reporting.
	MasterReport	
	ShowObjectBour	True
۵	Behaviour	
	DoublePass	False
	InvalidRenderLer	ThrowException
۵	Design	
	Name	document 1
4	Grid Settings	
	GridStep	0,5 cm
	ShowGrid	True
	SnapToGrid	True
۵	Misc	
	DataSources	(Collection)
	Delete EmptyPage	False
	Description	
	MetricUnit	Centimeter
	Parameters	(Collection)
	Title	
4	Render	
	StyleSheet	
4	Script	
	CommonScript	
	CompilerVersion	
	CustomLanguage	
	GenerateScript	
	Imports	
	ScriptLanguage	VisualBasicNET
Co Det Allo	mmonScript termines code of th ws you to declare	e main script sections. global script variables a
<b>***</b>	riope	Boom Document

Set property ScriptLanguage = CSharp.



Press "DataBand" button on the Insert tab in the group Container.



Click on the template area to add DataBand band to the template.

Set data source in the property DataSource = Customers.

17 i 18 i	19 🕎	Properties 🔹	ņ	×
	Â	dataBand1 DataBand		•
		Appearance     StyleName     ToolTip		
	_	Data     DataSource     Customers		•
(none) 				

#### Step 15

Press the "Edit Style" button in the Home tab in the group Styles.

File Home Insert La	ayout View				
Paste Objects Paste Objects Delete Objects	B Z U A A A A		Fill Border Margin	No Style	<ul> <li>▲</li> <li>▲</li> <li>Edit</li> <li>Style</li> </ul>
Clipboard	Font 5	Alignment	Appearance	Styles	6

Click the 🕂 button to add a new style in the Style Sheet Editor. Set Name = EvenLine.

🕎 Style Sheet Editor	X
Styles AaBbCcDdEe Eventine	Properties         Image: State S
	Name Determines name of the given style.
	OK Cancel

Select the Fill property, click the  $\boxed{}$  button to open the fill editor. Select SolidFill; press the "Color" button. Select the "More Colors..." item in the appeared combo box.

🕎 Style Sheet Editor	23
Styles Properties	
AaBbCcDdEe EvenLine	
T Color Color Transparency Theme Colors Theme Colors Standard Colors Recent Colors More Colors	
OK Cancel	)

Enter the following values in the Color editor window: Red = 255, Green = 128, Blue = 192. Press "Ok".

Color			23
Basic colors:			
Custom colors:			
		Hue: 220	Red: 255
		Sat: 240	Green: 128
Define Custom Colors >>	Color Solid	Lum: 180	Blue: 192
OK Cancel	A	dd to Custom (	Colors

Set the TextFill property in the same way.

Add one more style. Set Name = OddLine. Set the Fill and TextFill properties different from the EvenLine.

🕎 Style Sheet Editor	X
Styles	Properties ↓ ↓ □ ↓ ↓ □ ↓ ↓ □ ↓ ↓ ↓ □ ↓ ↓ ↓ □ ↓ ↓ ↓ □ ↓ ↓ ↓ ↓ □ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓
	Determines the text fill pattern defined by the style.
	OK Cancel

### Step 16

Press the "Detail" button in the Insert tab in the group Container.

File	Home	Insert	Layout Vie	ew						
	PageHead	er T	TextBox	*	<u> S</u> hape	ChartControl	{ <b>⊟</b> DataBand	SideBySide	Header	📕 SubReport
New 🖥	PageOverl	ay T	AdvancedText	Picture	✓ZipCode	🧟 Widget	🔚 GroupBand	🖶 CrossBand	😑 Detail	🗲 Content
Page 🚪	PageFoote	er RTF	RichText		BarCode	WinFormsControl	{ BandContainer		Footer	PivotTable
	Page		Text		Illust	ration	Container			

Click on the DataBand area to add Detail band inside DataBand.

File Home Insert L	ayout View						
Paste Objects A Copy Objects M Cut Objects Copy Objects M Delete Objects	B I U Â Ă	<u>A</u> <u>A</u>	E E E Angle	Fill Border Margin	AaBbCe EvenLine AaBbC	2	÷ A Edit Style
Clipboard	Font	Es.	Alignment	Appearance		Styles	Fai
Name page1	Binding StyleName		fz				
					••		
1 1 1 1 1	2   3   4	5 1 6	17181	9 i 10 i 11 i	12   13   14	15 i 16 i 17	i 18 i 19 💆
							-
dataBand1:DataBand Data	aSource = Customers						
detail1:Detail							
-							
1							
end of dataBand1							
2							
-							
3			2				E

Select dataBand1 DataBand in the combo box in the "Properties" type.



Click the "Bindings" button in the "Properties" tab, set the StyleName property: StyleName = dataBand1.LineNumber % 2 == 0 ? "EvenLine" : "OddLine".

2	1	3 і	4	6	16	1	7 1	8	1.9	ı 10	) i	11 i	12 1	13	i 14	ŧ i	15	16	i 17 i	18	i 10	9		Properties		•	ά×
_		_																						dataBand1 D	ataBand		•
.a50	urce	= Cus	tomers					-	0			1 1	_			_	_					-		4 Appeara	nce	Pand1 Line	Marrie
<b>B</b>	Scrip	t Editor																						Stylervan	e ual		23
1	Ę	data	Band1	LineN	umbe	er %	2 ==	0 ?	"Ever	nLine"	: "(	OddLir	ie"						Script	Editor	r ——						
																				Ban	ds	-	[	Data Sources	F	arameters	
																				ataBan Addr Com Cont Data Line Phor pecial I	d1 ress ipanyNa tactNam Number ne Fields	me le					
																							Cod	e Snippets	ОК	Canc	:el

### Step 17

Go to "DataSources" tab.



Drag and drop fields "CompanyName", "Address", "ContactName", "Phone" from the dataBand1 tree to the detail1 band. As a result TextBox elements are created. Script loading data from the data source is added to the Value property.

Change size of the elements and located them in the following way:

dataBand1:DataBand DataSource = Customers											
detail1:Detail											
<pre><databand1 <databand1="" <databand1<="" pre=""></databand1></pre>											
["CompanyName"]>	["ContactName"]>	["Address"]>									
end of dataBand1											



Save template, close Report Designer.

### Step 19

Add code to display report to the class constructor. Write RenderComplited event handler of the InlineReportSlot object.

```
public Form1()
      {
            InitializeComponent();
            DataRow row = dataTable1.NewRow();
            row["CompanyName"] = "Alfreds Futterkiste";
            row["Address"] = "Obere Str. 57";
            row["ContactName"] = "Maria Anders";
            row["Phone"] = "030-0074321";
            dataTable1.Rows.Add(row);
            row = dataTable1.NewRow();
            row["CompanyName"] = "Ana Trujillo Emparedados y helados";
            row["Address"] = "Avda. de la Constitución 2222";
            row["ContactName"] = "Ana Trujillo";
            row["Phone"] = "(5) 555-4729";
            dataTable1.Rows.Add(row);
            row = dataTable1.NewRow();
            row["CompanyName"] = "Ernst Handel";
            row["Address"] = "Kirchgasse 6";
            row["ContactName"] = "Roland Mendel";
            row["Phone"] = "7675 - 3425";
            dataTable1.Rows.Add(row);
            row = dataTable1.NewRow();
            row["CompanyName"] = "Toms Spezialitäten";
            row["Address"] = "Luisenstr. 48";
            row["ContactName"] = "Karin Josephs";
            row["Phone"] = "0251-031259";
            dataTable1.Rows.Add(row);
            inlineReportSlot1.RenderCompleted += new
EventHandler(reportSlot RenderCompleted);
        }
        private void reportSlot RenderCompleted (object sender, EventArgs e)
        {
            using (PerpetuumSoft.Reporting.View.PreviewForm previewForm = new
PerpetuumSoft.Reporting.View.PreviewForm(inlineReportSlot1))
            {
                previewForm.WindowState = FormWindowState.Maximized;
                previewForm.ShowDialog(this);
            }
        }
```

#### Step 20

Add two buttons onto the form (drag and drop "Button" element from the Toolbox onto the form).



Select Button element on the form, edit Text property on the property grid. Set Text = Template for one button and Text = Report for the other one.

Properties	•	Ψ×	Pro	perties		• ₽ ×
button1 System	m.Windows.Forms.Bu	utto 🗸	but	t <b>ton2</b> System.Wi	ndows.Forms.	Buttc 🕶
8≣ 2↓ 💷 :	/ 8			<b>≵↓</b> 🔲 🖋		
ImageIndex	(none)	~		ImageIndex	(none)	*
ImageKey	(none)			ImageKey	(none)	
ImageList	(none)			ImageList	(none)	
RightToLeft	t No			RightToLeft	No	_
Text	Template	-)	C	Text	Report ]	-)
TextAlign	MiddleCenter	_		TextAlign	MiddleCenter	
TextImageR	lelati Overlay			TextImageRelati	Overlay	
UseMnemo	nic True			UseMnemonic	True	
UseVisualSt	yleB True			UseVisualStyleB	True	
UseWaitCu	rsor False			UseWaitCursor	False	

Create Click event handlers for the buttons – double click on the Button element on the form. Add code launching report generation to the event handler. For example, use the following code:

```
private void button1_Click(object sender, EventArgs e)
{
    inlineReportSlot1.DesignTemplate();
}
private void button2_Click(object sender, EventArgs e)
{
    inlineReportSlot1.Prepare();
}
```

#### **Step 21**

Click "Start Debugging" on the Visual Studio toolbar in order to start application.

File	Edit	View	Refactor	Project	Build	Debug	Team	Data	Tools	Test	Window	Help	
16	-	- 🞽	🖬 🗊   d	k 🖻 🛍	<b>) ?</b> .	· (°' - (	<b>F</b> - E,		Debug		- 🖄		- 🛛 🖓 🖀 📭 🐼 🏷 🛃 📴 - 🖕
	- 🔁 👌	A.	17   🛊 🕯	) i i i i i i i i i i i i i i i i i i i	2   🗆	Ş 📮	Şi 🗛 🗸	23	-, ,				

Click the "Report" button in the opened application window.



Generated report will open with Report Viewer.

nentl - Preview report iew Navigate Document Help 1 🐌 🔟 🎊 🗟 🛓 🕅 🍭 🍕 🍕 👯 👘 🎆	158 % •   🗋 🗮   ∓ ↑ ↓ ±   @ €		الص) ا
Alfreds Futterkiste	Maria Anders	Obere Str. 57	030-0074321
Ana Trujillo Emparedados y helad	Ana Trujillo	Avda. de la Constitución 2222	(5) 555-4729
Ernst Handel	Roland Mendel	Kirchgasse 6	7675-3425
Toms Spezialitäten	Karin Josephs	Luisenstr. 48	0251-031259

Page 1 of 1 • Zoom 158%

In order to edit template, close Report Viewer and press "Template" on the application form.





Similar sample in the Samples Center is Scripting & Binding\Odd/Even lines highlighting.



# Sorting

Template of a report containing a list of customers sorted by city and company name.

#### Step 1

Create new project in Microsoft Visual Studio. Select New\Project from the main menu.



Select Windows Forms Application, set project name – "Sort", set directory to save the project to.

New Project					? ×	
Recent Templates		.NET Fra	mework 4   Sort by: Default	▼ III (III)	Search Installed Templates	
Installed Templates  ✓ Visual C#  Windows  Web  Office Cloud Reporting			Windows Forms Application WPF Application Console Application	Visual C# Visual C# Visual C#	Type: Visual C# A project for creating an application with a Windows Forms user interface	
<ul> <li>SharePoint</li> <li>Silverlight</li> <li>Test</li> <li>WCF</li> </ul>		°C#	Class Library WPF Browser Application	Visual C# Visual C#		
Workflow Other Languages Other Project Type	5	C#	Empty Project Windows Service	Visual C# Visual C#		
<ul> <li>Database</li> <li>Test Projects</li> <li>Online Templates</li> </ul>			WPF Custom Control Library	Visual C#		
			Windows Forms Control Library	Visual C#		
Name:	Sort	-				
Location:	c/		\documents\visual studio 2010\Projects	Browse		
Solution name:	Sort			<ul> <li>Create directory for solution</li> <li>Add to source control</li> </ul>		
					OK Cancel	

Change the project properties. Select the Project\Sort Properties... item in the main menu.

🥪 Sort - Microsoft Visual Studio (Administrator)										
File	Edit	View	Proje	ect	Build	Debug	Team	Data	Format	Tools
File Edit		view ▼ 🚰 A II .cs [Des Form1		Ad Ad Ad Ad Ad Ad Exc Sh Ad Scet	d Wind d Wind d User ( d Comp d Class. d Class. d Refer clude Fro ow All F d Refer d Servic t as Star	Debug ows Form Control oonent item item om Projec iles ence ce Referen tUp Proje	team t tt	Data	Shift+A Ctrl+Shi Shift+A	It+C ift+A it+A
			77	So	rt Prope	oject 100	ibox iten	ns	N	
				30	renope	incom.			N.	

Select the Target framework\.NET Framework4 item in the Application tab.

Application	Configuration: N/A				
Build					
Build Events	Assembly name:				
	SimpleReport				
Debug	Target framework:				
Resources	.NET Framework 4 Client Profile				
Services	.NET Framework 2.0 .NET Framework 3.0				
Settings	.NET Framework 3.5 NET Framework 3.5 Client Profile				
Reference Paths	.NET Framework 4 Client Profile				

Press the "Yes" button in the opened window.



Target Fran	mework Change
?	Changing the Target Framework requires that the current project be closed and then reopened. Any unsaved changes within the project will be automatically saved. Changing Target Framework may require manual modification of project files in order to build. Are you sure you want to change the Target Framework for this project?
	Yes No Help

Open main form of the application by double click on the "Form1.cs" in the Solution Explorer.



Click "DataSet" element on the Toolbox and place DataSet onto the form.



Select "Untyped dataset", click "OK"



The component is available in the lower part of the window.



#### Step 4

Select dataSet1 in the form editor. On the property grid, select Tables property, click button  $\Box$  in order to open property editor.

Properties 🔹 👎 🗙									
dataSet1 System.Data.DataSet 🔹									
2↓ 🔲 🗲 🖾									
	Namespace		*						
	Prefix								
	Relations	(Collection)							
	Tables	(Collection)							
4	Design	h							
4	(Name)	dataSet1							
	GenerateMemb	True	-						
	Modifiers	Private	-						
	Misc								
	EnforceConstrai	True							
	RemotingForma	Xml	-						
Tables           The collection that holds the tables for this DataSet.									

Click "Add" in order to add table. Set property TableName = Customers.
Tables Collection Editor				l	8
Members:		Cus	tomers Properties:		
0 Customers		⊿	Data		
		$\triangleright$	(ApplicationSetting		
			Columns	(Collection)	
			Constraints	(Collection)	
			DisplayExpression		
			MinimumCapacity	50	
			Namespace		
			Prefix		
			PrimaryKey	DataColumn[]	
			TableName	Customers	
		۵	Design		
			(Name)	dataTable1	
	X		GenerateMember	True	
			Modifiers	Private	
Add		Δ	Misc		

Select Columns property, click button  $\overline{\square}$  in order to open property editor.

Tables Collection Editor					? ×
Members:		Cus	tomers Properties:		
0 Customers		۵	Data		*
		Þ	(ApplicationSetting:		
		(	Columns	(Collection)	)
			Constraints	(Collection)	
			DisplayExpression		
			MinimumCapacity	50	
			Namespace		=
			Prefix		
			PrimaryKey	DataColumn[]	
			TableName	Customers	
		Δ	Design		
			(Name)	dataTable1	
	X		GenerateMember	True	
			Modifiers	Private	
Add		۵	Misc		-
					Close

Click "Add" to add a new column. Add three columns. Set ColumnName property to "CompanyName", "City", and "Address".

olumns Collection Editor				- Si	
Members:		Ado	dress Properties:		
0 CompanyName	]	⊿	Data		
1 City		⊳	(ApplicationSetting:		
2 Address		AllowDBNull T	True		
			AutoIncrement	False	
			AutoIncrementSeed	0	
			AutoIncrementStep	1	
			Caption	Address	
		(	ColumnName	Address	
			DataType	System.String	
			DateTimeMode	UnspecifiedLocal	L
			DefaultValue	<dbnull></dbnull>	
			Expression		
	×		MaxLength	-1	
			Namespace		
Add			Prefix		

Right click on the form and select "View Code" in the context menu to view code.

Form1.cs [Design]*	×		
🖳 Form1			
		View Code	F7
	•	Lock Controls	15
		Paste	Ctrl+V
	1	Properties	
		0	

Add the following code to the class constructor in order to fill data source.

```
public Form1()
{
    InitializeComponent();
    DataRow row = dataTable1.NewRow();
    row["CompanyName"] = "Alfreds Futterkiste";
```

```
row["City"] = "London";
row["Address"] = "Obere Str. 57";
dataTable1.Rows.Add(row);
row = dataTable1.NewRow();
row["CompanyName"] = "Ana Trujillo Emparedados y helados";
row["City"] = "Paris";
row["Address"] = "Avda. de la Constitución 2222";
dataTable1.Rows.Add(row);
row = dataTable1.NewRow();
row["CompanyName"] = "Ernst Handel";
row["City"] = "London";
row["Address"] = "Kirchgasse 6";
dataTable1.Rows.Add(row);
row = dataTable1.NewRow();
row["CompanyName"] = "Toms Spezialitäten";
row["City"] = "New York";
row["Address"] = "Luisenstr. 48";
dataTable1.Rows.Add(row);
```

}

Get back to the application form by clicking the "Form1.cs[Design]" tab.

Form1.cs* ×	Form1.cs [Design]*
🕸 Sort.Form1	
⊡using	System;
using	System.Collection
using	System.Component/
using	System.Data:

Click on the "ReportManager" on the Toolbox and place this component onto the form. This component is designed to store collections of report templates and data sources.



The component is available in the lower part of the window.



On the property grid, initialize OwnerForm property of the ReportManager by selecting the form it is located on.

Properties 🔻 🕂 🗘							
гер	reportManager1 PerpetuumSoft.Repo -						
•	<b>≵</b> ↓ 🔲 🥖						
	DataSources	Objects	*				
4	Design						
	(Name)	reportManager1					
	GenerateMemb	True					
	Modifiers	Private					
4	Misc		Ξ				
	About	(c) 2002-2011 Perp					
$\triangleright$	OwnerForm	Form1 💌	)				
-	Reports	(Collection)	-				

## Step 9

Double click on ReportManager to open ReportManager editor.

🖳 Form1		3			Y
		ReportManager editor			
	_	6			
	l	Add Delete	Run Designer	ОКСС	ancel

Go to "Data sources" tab, click "Add", set data source name – "Customers", select data source value – "dataSet1.Customers".



Add

Edit

Go to "Reports" tab, click "Add" and select "InlineReportSlot".

Delete

OK

Cancel

ReportManager editor		
Reports Data sources		
	ОК	Cancel
UrlReportSlot		

Set name of the report in the property ReportName – "Sort". Click "Run Designer" in order to open template editor - Report Designer.



Create new empty template – select File\New from the main menu.



Select "Blank Report" in the Wizards Gallery and click "OK".

6	PERPETUUM www.perpetuumsoft.com software	
	📴 Wizards Gallery	23
	New Saved	
	Blank Report	
	Standard Report	
	Pivot table Report	
	Load from file OK	Cancel

Click the "Properties" tab of the tool window in the right part of the designer.





Pro	perties	<b>→</b> Å ×
doc	um gt1 Docum	ent 🔹
	]⊉↓ 🖻	
4	Appearance	
⊳	GraphicsSettings	PerpetuumSoft.Reporting.
	MasterReport	
	ShowObjectBour	True
۵	Behaviour	
	DoublePass	False
	InvalidRenderLer	ThrowException
۵	Design	
	Name	document 1
4	Grid Settings	
	GridStep	0,5 cm
	ShowGrid	True
	SnapToGrid	True
۵	Misc	
	DataSources	(Collection)
	Delete EmptyPage	False
	Description	
	MetricUnit	Centimeter
	Parameters	(Collection)
	Title	
4	Render	
	StyleSheet	
4	Script	
	CommonScript	
	CompilerVersion	
	CustomLanguage	
	GenerateScript	
	Imports	
	ScriptLanguage	VisualBasicNET
Co Det Allo	mmonScript termines code of th ws you to declare	e main script sections. global script variables a
<b>***</b>	riope	Boom Document

Set property ScriptLanguage = CSharp.



Press "DataBand" button on the Insert tab in the group Container.



Click on the template area to add DataBand band to the template.

Set data source in the property DataSource = Customers.

17 i 18 i	19 🖳	Properties 🔹	φ×
	- Î	dataBand1 DataBand	•
		Appearance     StyleName     ToolTip	
		Data     DataSource     Customers	•
(none) 			

Select Sort property, click button  $\square$  to open property collection editor.



Click button to add new sorting condition. Set Expression property to "GetData("Customers.City")", and property Order = Ascending.

🕎 Collection Editor	- • ×
Members	Properties
GetData("Customers.City")	A       Misc         Expression       Get Data("Customers.Ci         Order       Ascending
	Defines an object by which the sorting is performed
	OK Cancel

Add one more condition, set Expression = GetData("Customers.CompanyName"), Order = Ascending.



Press "Detail" button on the Insert tab in the group Container.

File	Home	Insert	Layout Vie	w						_
New Page	PageHeade PageOverla PageFoote	er T ay T r AT	TextBox AdvancedText RichText	Picture	Shape 2 ZipCode	ChartControl ChartControl Widget WinFormsControl	{ DataBand GroupBand EndContainer	E SideBySide	Header	SubReport Content
	Page		Text		Illust	ration		Containe	r	

Click on the DataBand area to add Detail band inside DataBand.

																						_																					
		1	1		I.	1	I.	2	I.	3	1	4	1	5	1	6	1	7	1	8	1 9		1	10	I.	11	1	12	1	13	1	14	Т	15	1	16	1	17	1	18	1	19	2
_																																									T		ĥ
	da	taBa	nd1	:Dat	aBa	nd	Data	aSol	urce	e = (	Cust	ome	ers																														
-	de	etail1	:Det	ail																		,																					
1	6																																										Į
-	-																																								_		
2	er	nd of	data	aBar	nd1																																				_		
-	Ŀ																																										
																																											=

## **Step 16**

Go to "Data Source" tab.



DataSource	s	•	φ×
Bands	Data So	Para	met
Bands - Add - City - Com - Data - Line → Special	Data So Interess InpanyName altem Number Fields	Para	met
Pr (	Data	Doc	um

Drag and drop "CompanyName", "City", "Address" fields from the dataBand1 tree to the detail1 band. As a result TextBoxes are created. Value property is automatically filled with script loading data from the data source.

Change size of the elements and locate them in the way shown in the picture below.

dataBand1:DataBand DataSource = Customers			
detail1:Detail			
<databand1("city")></databand1("city")>	<databand1 ("CompanyName")&gt;</databand1 	<databand1("address")></databand1("address")>	
end of dataBand1			



Save template, close Report Designer.

## Step 18

Add code to display report to the class constructor. Write RenderComplited event handler of the InlineReportSlot object.

```
public Form1()
        {
            InitializeComponent();
            DataRow row = dataTable1.NewRow();
            row["CompanyName"] = "Alfreds Futterkiste";
            row["City"] = "London";
            row["Address"] = "Obere Str. 57";
            dataTable1.Rows.Add(row);
            row = dataTable1.NewRow();
            row["CompanyName"] = "Ana Trujillo Emparedados y helados";
            row["City"] = "Paris";
            row["Address"] = "Avda. de la Constitución 2222";
            dataTable1.Rows.Add(row);
            row = dataTable1.NewRow();
            row["CompanyName"] = "Ernst Handel";
            row["City"] = "London";
            row["Address"] = "Kirchgasse 6";
            dataTable1.Rows.Add(row);
            row = dataTable1.NewRow();
            row["CompanyName"] = "Toms Spezialitäten";
            row["City"] = "New York";
            row["Address"] = "Luisenstr. 48";
            dataTable1.Rows.Add(row);
            inlineReportSlot1.RenderCompleted += new
EventHandler(reportSlot RenderCompleted);
        }
        private void reportSlot RenderCompleted(object sender, EventArgs e)
        {
            using (PerpetuumSoft.Reporting.View.PreviewForm previewForm = new
PerpetuumSoft.Reporting.View.PreviewForm(inlineReportSlot1))
            {
                previewForm.WindowState = FormWindowState.Maximized;
                previewForm.ShowDialog(this);
            }
        }
```

## Step 19

Add two buttons onto the form (drag and drop "Button" element from the Toolbox onto the form).



Select Button element on the form, edit Text property on the property grid. Set Text = Template for one button and Text = Report for the other one.

Properties	•	Ψ×	Pro	perties		r 4 ×
button1 System.	Windows.Forms.Bu	utto 🕶	bu	tton2 System.Wi	ndows.Forms.E	Buttc 🝷
8≣ 2↓ 🔳 🖋				<b>2</b> ↓ 📃 🖋		
ImageIndex	(none)	-		ImageIndex	(none)	*
ImageKey	(none)			ImageKey	(none)	
ImageList	(none)			ImageList	(none)	
RightToLeft	No			RightToLeft	No	
Text	Template	-)	0	Text	Report ]	•
TextAlign	MiddleCenter			TextAlign	MiddleCenter	
TextImageRel	lati Overlay			TextImageRelati	Overlay	
UseMnemoni	ic True			UseMnemonic	True	
UseVisualStyl	eB True			UseVisualStyleB	True	
UseWaitCurso	or False			UseWaitCursor	False	

Create Click event handlers for the buttons – double click on the Button element on the form. Add code launching report generation to the event handler. For example, use the following code:

```
private void button1_Click(object sender, EventArgs e)
{
    inlineReportSlot1.DesignTemplate();
}
private void button2_Click(object sender, EventArgs e)
{
    inlineReportSlot1.Prepare();
}
```

#### Step 20

Click "Start Debugging" on the Visual Studio toolbar in order to start application.

File	Edit	View	Refactor	Project	Build	Debug	Team	Data	Tools	Test	Window	Help	
16	-	- 🞽	🖬 🥥   J	6 🗈 🛍	, <b>  -</b> ) -	• @ • <	<b>-</b> 🕫		Debug		- 🛛 🚈		- 🖂 🛃 😒 🏷 🛃 💶 - 🖕
1	- 🔁 👌	L_ A≳	17   🛊 🕯		2   🗆		Ş2 C3 4	2.3	-, ,				

Click the "Report" button in the opened application window.



Generated report will open with Report Viewer.

🧳 doc	ument1 - Preview report			
File	View Navigate Document Help			
÷	💾 🐊 🖬 🦓 🖬 🛃 🕗 🍳 🔍			
				ĥ
	London	Alfreds Futterkiste	Obere Str. 57	
	London	Ernst Handel	Kirchgasse 6	
	New Yorl	Toms Spezialitäten	Luisenstr. 48	=
	Paris	Ana Trujillo Emparedados y helados	Avda. de la Constitución 2222	

In order to edit template, close Report Viewer and press "Template" on the application form.





# Filtering

Template of a report containing odd numbers from the set of integers.

### Step 1

Create new project in Microsoft Visual Studio. Select New\Project from the main menu.



Select Windows Forms Application, set project name – "Filter", set directory to save the project to.

New Project					2 <b>X</b>
Recent Templates		.NET Fra	mework 4 🔹 Sort by: Default	▼ Ⅲ Ⅲ	Search Installed Templates
Installed Templates  Visual C#		<b>_</b> c#	Windows Forms Application	Visual C#	Type: Visual C# A project for creating an application with a
Windows Web		<b>*</b>	WPF Application	Visual C#	Windows Forms user interface
Cloud Reporting		City City	Console Application	Visual C#	
<ul> <li>SharePoint</li> <li>Silverlight</li> </ul>		C#	Class Library	Visual C#	
Test WCF		[∞] c♯	WPF Browser Application	Visual C#	
Workflow  Other Languages  Other Desired Terror	_	C#	Empty Project	Visual C#	
<ul> <li>Database</li> <li>Test Projects</li> </ul>	5	<b>≣</b> ¢#	Windows Service	Visual C#	
Online Templates		• • •	WPF Custom Control Library	Visual C#	
		<b>•Cr</b>	WPF User Control Library	Visual C#	
		E CR	Windows Forms Control Library	Visual C#	
Name:	Filter				
Location:	c:\		\documents\visual studio 2010\Projects	•	Browse
Solution name:	Filter				<ul> <li>Create directory for solution</li> <li>Add to source control</li> </ul>
					OK Cancel

Change the project properties. Select the Project\Filter Properties... item in the main menu.

00 F	ilte	r - N	licrosof	t Visu	al S	tudio (A	dministra	ator)			
File	E	dit	View	Proje	ect	Build	Debug	Team	Data	Format	Tools
	] - t		• 🚰 ឧ នា		Ad Ad	ld Wind d User (	ows Form Control	ı			
2	Fo	rm1.	cs [Des	<b>æ</b>	Ad Ad	ld Comp Id Class.	oonent			Shift+A	lt+C
ata Sourc			Form1	•••• •••	Ad Ad	ld New I Id Existir	item ng Item			Ctrl+Shi Shift+A	ift+A lt+A
es 🔆 To				<b>b</b>	Exo Sh	clude Fr ow All F	om Proje iles	ct			
polpox					Ad Ad	ld Refere Id Servic	ence :e Referer	ice			
				47	Set Re	t as Start fresh Pr	t <b>Up Proje</b> oject Too	<b>ct</b> Ibox Iten	าร		
					Filt	ter Prop	erties			5	

Select the Target framework\.NET Framework4 item in the Application tab.

Application	Configuration: N/A
Build	
Build Events	Assembly name:
	SimpleReport
Debug	Target framework:
Resources	.NET Framework 4 Client Profile 🔹
Services	.NET Framework 2.0 .NET Framework 3.0
Settings	.NET Framework 3.5 .NET Framework 3.5 Client Profile
Reference Paths	.NET Framework 4 Client Profile

Press the "Yes" button in the opened window.



Target Fran	mework Change
?	Changing the Target Framework requires that the current project be closed and then reopened. Any unsaved changes within the project will be automatically saved. Changing Target Framework may require manual modification of project files in order to build. Are you sure you want to change the Target Framework for this project?
	Yes No Help

Open main form of the application by double click on the "Form1.cs" in the Solution Explorer.



Click "DataSet" element on the Toolbox and place DataSet onto the form.



Select "Untyped dataset", click "OK"



The component is available in the lower part of the window.



#### Step 4

Select dataSet1 in the form editor. On the property grid, select Tables property, click button in order to open property editor.

Pro	perties	<b>→</b> Ĥ	×									
dataSet1 System.Data.DataSet												
•	<b>≵</b> ↓ 🔲 🖋											
	Namespace		*									
	Prefix											
	Relations	(Collection)										
	Tables	(Collection)	]									
4	Design	h										
	(Name)	dataSet1										
	GenerateMemb	True	=									
	Modifiers	Private	-									
4	Misc											
	EnforceConstrai	True										
	RemotingForma	Xml	-									
Tal	bles											
The collection that holds the tables for this DataSet.												

Click "Add" in order to add table. Set property TableName = Number.

Tables Callection Editor	2	X
Members:	Number Properties:	
0 Number	⊿ Data	-
	ApplicationSetting:	_
	Columns (Collection)	)
	Constraints (Collection)	
	DisplayExpression	_
	MinimumCapacity 50	- 11
	Namespace	Ξ
	Prefix	- 11
	PrimaryKey DataColumn[]	- 11
	TableName Number	
	⊿ Design	
	(Name) dataTable1	
×	GenerateMember True	_
	Modifiers Private	_
Add	⊿ Misc	Ŧ
		_
	Close	

Select Columns property, click button  $\overline{\hbox{$\square$}}$  in order to open property editor.

# Step 5

Click "Add" to add a new column. Set ColumnName property to "Value".

Columns Collection Editor					? X
Members:		Valu	ue Properties:		
0 Value		۵	Data		*
		⊳	(ApplicationSetting:		
			AllowDBNull	True	
			AutoIncrement	False	
			AutoIncrementSeed	0	
			AutoIncrementStep	1	E
			Caption	Value	
		(	ColumnName	Value	
			DataType	System.String	
			DateTimeMode	UnspecifiedLocal	
			DefaultValue	<dbnull></dbnull>	
			Expression		
	X		MaxLength	-1	
	<u> </u>		Namespace		
Add			Prefix		-
				c	lose

Right click on the form and select "View Code" in the context menu to view code.

Form1.cs [Design]* ×		
Porm1		
	F	View Code F7
	8	Lock Controls
	Ē.	Paste Ctrl+V
	<b>P</b>	Properties

Add the following code to the class constructor in order to fill data source.

```
public Form1()
{
    InitializeComponent();
    DataRow row;
    for (int i = 0; i < 50; i++)
    {
        row = dataTable1.NewRow();
        row["Value"] = i;
        dataTable1.Rows.Add(row);
    }
}</pre>
```

## Step 7

Get back to the application form by clicking the "Form1.cs[Design]" tab.



Click on the "ReportManager" on the Toolbox and place this component onto the form. This component is designed to store collections of report templates and data sources.



The component is available in the lower part of the window.

P dataSet1	reportManager1

### Step 8

On the property grid, initialize OwnerForm property of the ReportManager by selecting the form it is located on.



#### Step 9

Double click on ReportManager to open ReportManager editor.

₽ <mark>₩</mark> Form1				
	Í	ReportManager editor		
		Reports Data sources		
		G₂		
		Add Delete	Run Designer	
	l			OK Cancel

Go to "Data sources" tab, click "Add", and set data source name – "Number", select data source value – "dataSet1.Number".



Go to "Reports" tab, click "Add" and select "InlineReportSlot".

OK

Cancel

ReportManager editor		
Reports Data sources		
Add Delete Run Designer		
	ОК	Cancel
UriReportSlot		

Set name of the report in the property ReportName – "Filter". Click "Run Designer" in order to open template editor - Report Designer.



Create new empty template – select File\New from the main menu.



Select "Blank Report" in the Wizards Gallery and click "OK".

6	PERPETUUM www.perpetuumsoft.com software	
	📴 Wizards Gallery	23
	New Saved	
	Blank Report	
	Standard Report	
	Pivot table Report	
	Load from file OK	Cancel

Click the "Properties" tab of the tool window in the right part of the designer.





Pro	perties	<b>→</b> Å ×
doc	um gt1 Docum	ent 🔹
	]⊉↓ 🖻	
4	Appearance	
⊳	GraphicsSettings	PerpetuumSoft.Reporting.
	MasterReport	
	ShowObjectBour	True
۵	Behaviour	
	DoublePass	False
	InvalidRenderLer	ThrowException
۵	Design	
	Name	document 1
4	Grid Settings	
	GridStep	0,5 cm
	ShowGrid	True
	SnapToGrid	True
۵	Misc	
	DataSources	(Collection)
	Delete EmptyPage	False
	Description	
	MetricUnit	Centimeter
	Parameters	(Collection)
	Title	
4	Render	
	StyleSheet	
4	Script	
	CommonScript	
	CompilerVersion	
	CustomLanguage	
	GenerateScript	
	Imports	
	ScriptLanguage	VisualBasicNET
Co Det Allo	mmonScript termines code of th ws you to declare	e main script sections. global script variables a
<b>***</b>	riope	Boom Document

Set property ScriptLanguage = CSharp.



Press "DataBand" button on the Insert tab in the group Container.



Click on the template area to add DataBand band to the template.

Set data source in the property DataSource = Number.

۵	Data	
	Data Source	Number 🚽
	FilterExpressi	
	InstanceCour	0
	Sort	(Collection)
	Tag	
	Totals	(Collection)

Select FilterExpression property, click button . to open Script Editor. Enter filtering condition to display only odd numbers: Convert.ToInt32 (GetData("Number.Value")) % 2 != 0"



### Step 15

Press "Detail" button on the Insert tab in the group Container.



Click on the DataBand area to add Detail band inside DataBand.

## Step 16

Go to "DataSources" tab.

DataSources	•	<b>џ</b>	×
Bands Data So	Para	me	t
endataBand1			
Dataitem LineNumber			
Value			
		_	
🚰 Pr ( 🔄 Data ) 🗉	Doc	um	

Drag and drop "Value" field from the dataBand1 tree to the detail1 band. As a result TextBoxes are created. Value property is automatically filled with script loading data from the data source.

dataBand1:DataBand DataSource = Number															
													 	_	
detail1:Detail															
<databa< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></databa<>															
nd1["Val															
end of dataBand1															

## **Step 17**

Save template, close Report Designer.

### Step 18

Add code to display report to the class constructor. Write RenderComplited event handler of the InlineReportSlot object.

```
public Form1()
        {
            InitializeComponent();
            DataRow row;
            for (int i = 0; i < 50; i++)</pre>
            {
                row = dataTable1.NewRow();
                row["Value"] = i;
                dataTable1.Rows.Add(row);
            inlineReportSlot1.RenderCompleted += new
EventHandler(reportSlot RenderCompleted);
        }
        private void reportSlot RenderCompleted(object sender, EventArgs e)
        {
            using (PerpetuumSoft.Reporting.View.PreviewForm previewForm = new
PerpetuumSoft.Reporting.View.PreviewForm(inlineReportSlot1))
            {
                previewForm.WindowState = FormWindowState.Maximized;
                previewForm.ShowDialog(this);
            }
        }
```

### Step 19

Add two buttons onto the form (drag and drop "Button" element from the Toolbox onto the form).



Select Button element on the form, edit Text property on the property grid. Set Text = Template for one button and Text = Report for the other one.

Properties	<b>▲</b> Å	×	Prop	perties		• ₽ ×		
button1 System.Wi	ndows.Forms.Butto	•	button2 System.Windows.Forms.Bu					
2↓ 🔲 🖋				<b>≜</b> ↓ 🔳 🥖				
ImageIndex	(none)	~		ImageIndex	(none)	~		
ImageKey	(none)			ImageKey	(none)			
ImageList	(none)			ImageList	(none)			
RightToLeft	No			RightToLeft	No			
Text	Template 📋 👻	J	0	Text	Report ]	•		
TextAlign	MiddleCenter			TextAlign	MiddleCenter			
TextImageRelati	Overlay			TextImageRelati	Overlay			
UseMnemonic	True			UseMnemonic	True			
UseVisualStyleB	True			UseVisualStyleB	True			
UseWaitCursor	False			UseWaitCursor	False			

Create Click event handlers for the buttons – double click on the Button element on the form. Add code launching report generation to the event handler. For example, use the following code:

```
private void button1_Click(object sender, EventArgs e)
{
    inlineReportSlot1.DesignTemplate();
}
private void button2_Click(object sender, EventArgs e)
{
    inlineReportSlot1.Prepare();
}
```

#### Step 20

Click "Start Debugging" on the Visual Studio toolbar in order to start application.



Click the "Report" button in the opened application window.

🖳 Form1	
Template	leport

Generated report will open with Report Viewer.

🛃 document1 - Preview report	
File View Navigate Document Help	
1	
3	
5	E
7	
9	
11	
13	
15	
17	
19	
21	
23	
25	
27 ✓ Page 1 of 1 - Zoom 158%	

In order to edit template, close Report Viewer and press "Template" on the application form.





# Grouping

Template of a report containing information on customers grouped by the first letter of the company name.

### Step 1

Create new project in Microsoft Visual Studio. Select New\Project from the main menu.



Select Windows Forms Application, set project name – "Group", set directory to save the project to.

New Project					? ×
Recent Templates		.NET Fra	mework 4 🔹 Sort by: Default		Search Installed Templates
Installed Templates  Visual C#			Windows Forms Application V		Type: Visual C# A project for creating an application with a Windows Forms user interface
Windows Web	<b>*</b>	WPF Application	Visual C#		
<ul> <li>Office</li> <li>Cloud</li> <li>Reporting</li> <li>SharePoint</li> <li>Silverlight</li> </ul>			Console Application	Visual C#	
		<b>r</b> c‡	Class Library	Visual C#	
Test WCF		[∞] c≉	WPF Browser Application	Visual C#	
Workflow Other Languages	Workflow Other Languages		Empty Project	Visual C#	
<ul> <li>Other Project Types</li> <li>Database</li> </ul>		<b>_</b> c [#]	Windows Service	Visual C#	
Online Templates		•C [#]	WPF Custom Control Library	Visual C#	
		<b>₹C</b> #	WPF User Control Library	Visual C#	
		<mark>∰</mark> C‡	Windows Forms Control Library	Visual C#	
Name:	Group				
Location:	c:\\documents\visual studio 2010\Projects				Browse
Solution name:	Group				<ul> <li>Create directory for solution</li> <li>Add to source control</li> </ul>
					OK Cancel
Change the project properties. Select the Project\Group Properties... item in the main menu.

00	iro	up -	Microso	oft Vis	ual	Studio (	Administ	rator)			
File	E	Edit	View	Proje	ect	Build	Debug	Team	Data	Format	Tools
🛄 👯 📊 Data So	] - 	· ∷ I≓ orm1	•		Ad Ad Ad Ad	Id Winde Id User ( Id Comp Id Class. Id New I	control control conent  tem	h		Shift+A Ctrl+Shi	lt+C ift+A
urces 🕅 Toolbox				•••	Ad Exc Sh Ad Set Re	ld Existin ow All F Id Refere Id Servic t as Start fresh Pro	ng Item om Projec iles ence e Referen tUp Proje oject Too	ct cce ct Ibox Item	15	Shift+A	lt+A
					Gr	oup Pro	perties			5	

Select the Target framework\.NET Framework4 item in the Application tab.

Configuration: N/A
Assembly name:
SimpleReport
Target framework:
.NET Framework 4 Client Profile 🔹
.NET Framework 2.0 .NET Framework 3.0
.NET Framework 3.5 .NET Framework 3.5 Client Profile
NET Framework 4 NET Framework 4 Client Profile

Press the "Yes" button in the opened window.



Target Fran	mework Change
?	Changing the Target Framework requires that the current project be closed and then reopened. Any unsaved changes within the project will be automatically saved. Changing Target Framework may require manual modification of project files in order to build. Are you sure you want to change the Target Framework for this project?
	Yes No Help

Open main form of the application by double click on the "Form1.cs" in the Solution Explorer.



Click "DataSet" element on the Toolbox and place DataSet onto the form.



Select "Untyped dataset", click "OK"



The component is available in the lower part of the window.



#### Step 4

Select dataSet1 in the form editor. On the property grid, select Tables property, click button  $\Box$  in order to open property editor.

Properties 🝷 무 🗙							
dataSet1 System.Data.DataSet 🔹							
•	≵↓ 🔳 🦸						
	Namespace		*				
	Prefix						
	Relations	(Collection)					
	Tables	(Collection)					
4	Design	N1					
	(Name)	dataSet1					
	GenerateMemb	True	-				
	Modifiers	Private	-				
4	Misc						
	EnforceConstrai	True					
	RemotingForma	Xml	-				
Tables The collection that holds the tables for this DataSet.							

Click "Add" in order to add table. Set property TableName = Customers.

Tables Collection Editor					8
Members:		Cus	stomers Properties:		
0 Customers		۵	Data		
		⊳	(ApplicationSetting		
			Columns	(Collection)	
			Constraints	(Collection)	
			DisplayExpression		
			MinimumCapacity	50	
			Namespace		
			Prefix		
			PrimaryKey	DataColumn[]	
			TableName	Customers	
		۵	Design		
			(Name)	dataTable1	
	×		GenerateMember	True	
			Modifiers	Private	
Add		⊿	Misc		

Select Columns property, click button  $\overline{\square}$  in order to open property editor.

Tables Collection Editor					?	x
Members:		Cus	stomers Properties:			
0 Customers		۵	Data			*
		Þ	(ApplicationSetting:			
			Columns	(Collection)		
			Constraints	(Collection)		
			DisplayExpression			
			MinimumCapacity	50		
			Namespace			=
			Prefix			
			PrimaryKey	DataColumn[]		
			TableName	Customers		
		۵	Design			
			(Name)	dataTable1		
	X		GenerateMember	True		
			Modifiers	Private		
Add		⊿	Misc			Ŧ
					Close	

Click "Add" to add a new column. Add four columns. Set ColumnName property to "CompanyName", "Address", "ContactName", "Phone".

olumns Collection Editor				Ľ	
Members:		Pho	one Properties:		
0 CompanyName		۵	Data		
1 Address		⊳	(ApplicationSetting:		
2 ContactName			AllowDBNull	True	
3 Phone			AutoIncrement	False	
			AutoIncrementSeed	0	
			AutoIncrementStep	1	
			Caption	Phone	
		(	ColumnName	Phone	
			DataType	System.String	·
			DateTimeMode	UnspecifiedLocal	L
			DefaultValue	<dbnull></dbnull>	
			Expression		
	×		MaxLength	-1	
			Namespace		
Add			Prefix		

Right click on the form and select "View Code" in the context menu to view code.

Fo	rm1.cs [Design]* 🗙		
	🖳 Form1		
		F	View Code F7
		۵	Lock Controls
		Ē.	Paste Ctrl+V
		8	Properties

Add the following code to the class constructor in order to fill data source.

```
public Form1()
{
    InitializeComponent();
    DataRow row = dataTable1.NewRow();
    row["CompanyName"] = "Alfreds Futterkiste";
```

```
row["Address"] = "Obere Str. 57";
row["ContactName"] = "Maria Anders";
row["Phone"] = "030-0074321";
dataTable1.Rows.Add(row);
row = dataTable1.NewRow();
row["CompanyName"] = "Ana Trujillo Emparedados y helados";
row["Address"] = "Avda. de la Constitución 2222";
row["ContactName"] = "Ana Trujillo";
row["Phone"] = "(5) 555-4729";
dataTable1.Rows.Add(row);
row = dataTable1.NewRow();
row["CompanyName"] = "Ernst Handel";
row["Address"] = "Kirchgasse 6";
row["ContactName"] = "Roland Mendel";
row["Phone"] = "7675 - 3425";
dataTable1.Rows.Add(row);
row = dataTable1.NewRow();
row["CompanyName"] = "Toms Spezialitäten";
row["Address"] = "Luisenstr. 48";
row["ContactName"] = "Karin Josephs";
row["Phone"] = "0251-031259";
dataTable1.Rows.Add(row);
```

}

Get back to the application form by clicking the "Form1.cs[Design]" tab.



Click on the "ReportManager" on the Toolbox and place this component onto the form. This component is designed to store collections of report templates and data sources.



The component is available in the lower part of the window.



On the property grid, initialize OwnerForm property of the ReportManager by selecting the form it is located on.

Prop	perties	<b>→</b> ‡	×				
reportManager1 PerpetuumSoft.Repo							
•	<b>≵</b> ↓ 🔲 🥖						
	DataSources	Objects	*				
4	Design						
	(Name)	reportManager1					
	GenerateMemb	True					
	Modifiers	Private					
4	Misc		Ξ				
	About	(c) 2002-2011 Perp					
$\triangleright$	OwnerForm	Form1 💌	)				
-	Reports	(Collection)	-				

### Step 9

Double click on ReportManager to open ReportManager editor.

🖳 Form1		3			Y
		ReportManager editor			
	_	6			
	l	Add Delete	Run Designer	ОКС	ancel

Go to "Data sources" tab, click "Add", set data source name – "Customers", select data source value – "dataSet1.Customers".



Add

Edit

Go to "Reports" tab, click "Add" and select "InlineReportSlot".

Delete

OK

Cancel

ReportManager editor	
Reports Data sources	
	OK Cancel
UrlReportSlot	

Set name of the report in the property ReportName – "Group". Click "Run Designer" in order to open template editor - Report Designer.



Create new empty template – select File\New from the main menu.



Select "Blank Report" in the Wizards Gallery and click "OK".

•	PERPETUUM www.perpetuumsoft.com	
	Wizards Gallery	23
	New         Saved           Blank Report         Standard Report           Pivot table Report         Divot table Report	
	Load from file OK Ca	ncel

Click the "Properties" tab of the tool window in the right part of the designer.



You	will	see	properties	of the	e edite	d	template	on	the	"Properties"	tab
						-	1				

Pro	perties	<b>-</b> † ×
doc	um gt1 Docum	ent 🔹
	]≵↓ 🖾	
4	Appearance	
⊳	GraphicsSettings	PerpetuumSoft.Reporting.l
	MasterReport	
	ShowObjectBour	True
۵	Behaviour	
	DoublePass	False
	InvalidRenderLer	ThrowException
۵	Design	
	Name	document 1
۵	Grid Settings	
	GridStep	0,5 cm
	ShowGrid	True
	SnapToGrid	True
۵	Misc	
	DataSources	(Collection)
	DeleteEmptyPage	False
	Description	
	MetricUnit	Centimeter
	Parameters	(Collection)
	Title	
۵	Render	
	StyleSheet	
۵	Script	
	CommonScript	
	CompilerVersion	
	CustomLanguage	
	GenerateScript	
	Imports	
	ScriptLanguage	VisualBasicNET
Co Det Allo	mmonScript termines code of the two you to declare	e main script sections. global script variables a
	Prope 🚝 Dat	aSo 🔚 Document

Set property ScriptLanguage = CSharp.



Press "DataBand" button on the Insert tab in the group Container.



Click on the template area to add DataBand band to the template.

Set data source in the property DataSource = Customers.

17 i 18 i 19	Properties 🔹	ņ	×
	dataBand1 DataBand		•
		_	
	Appearance StyleName		
	ToolTip A Data		
	Data Source Customers		-
(none)			

#### Step 15

Press "GroupBand" button on the Insert tab in the group Container.



IIII BarCode 🧮 WinFormsControl

Illustration

Click on the DataBand area to add GroupBand inside DataBand.

Select GroupExpression property on the "Properties" tab. Click button 🗔 to open property editor - Script Editor.

{
BandContaner

Footer

Container

PivotTable

Properties 👻 🖣	×
groupBand1 GroupBand	•
<b>₽</b> ↓   <b>                   </b>	
⊿ Appearance	
StyleName	
ToolTip	
⊿ Data	
GroupExpression	
Order KeepOriginal	
SortExpression	
Tag	

RTF RichText

Text

New

Page 📄 PageFooter

Page

Enter code to group records by the first letter in the company name: "GetData("Customers.CompanyName").ToString().Substring(0,1)".

Script Editor					23
1     GetData("Customers.CompanyName").ToString().Substring(0,1)     Substring(0,1)	Script Editor				
	Bands	Data Sources	Parar	meters	
	<ul> <li>Customers</li> <li>Address</li> <li>CompanyName</li> <li>ContactName</li> <li>Phone</li> <li>Phone</li> <li>Special Fields</li> </ul>				
		Code Snippets	ОК	Cancel	

Template should look as follows on this stage:

dataBand1:I	DataBan	d Dat	aSou	rce =	= Cus	stom	iers																				
groupBand1	1:GroupB	and C	Group	) = G	etDa	ita("C	Custo	mer	s.Co	mpa	nyN	ame	e").To	oStrii	ng().	Subs	tring	g(0,1	)							1 1	
end of group	pBand1																										
end of dataE	Band1																										

#### **Step 16**

To display header for every group, create Header band – press "Header" button on the Insert tab in the group Container.



Click on the GroupBand area to add Header band inside GroupBand.

### **Step 17**

Press button "TextBox" on the Insert tab in the group Text.



Click on the Header band to add TextBox element to Header.

Set Value property to "Group".

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																																							_		
	1	T		1	1	I.	2	1	3	1	4	T	5	1	6	1	7	1	8	1	9	1	10	T.	11	1	12	1	13	1	14	1	15	1	16	I.	17	I.	18	1	19
Γ																																									
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g	jrou	рВа	nd1:(	Grou	pВа	nd	Gro	oup	= G	etD	ata(	"Cu	ston	ners	.Cor	npa	inyNa	ame	e").To	oStr	ing()	.Su	bstr	ing(	0,1)	)															
h	ead	er1:	Head	er																																				1	
E			<	Gr	ou	p>																																			
e	nd o	of g	roupl	Band	11																																				
е	nd (	of d	ataBa	and1	l i																																				

### Step 18

Press "Detail" button on the Insert tab in the group Container.

File	Home	Insert	Layout Vie	ew					_	_
	PageHeade	er T	TextBox	*	🔀 Shape	ChartControl	📒 DataBand	SideBySide	Header	SubReport
New	👔 PageOverla	ay 🔳 🝸	AdvancedText	Picture	✓ZipCode	🥵 Widget	E GroupBand	🖶 CrossBand	😑 Detail 📐	🔄 Content
Page	📔 PageFoote	r RTF	RichText	, icture	BarCode	WinFormsControl	{🔳 BandContainer		- Footer	PivotTable
	Page		Text		Illust	ration		Containe	er	

Click on the GroupBand area to add Detail band inside GroupBand.

dataBand1:Data	and DataSo	urce = Custo	omers								 1 1					
groupBand1:Gro	JpBand Grou	ip = GetData	("Custome	ers.Com	panyNar	ne").ToS	String().9	Substr	ing(0,1	)						
header1:Header																
<g< th=""><th>roup&gt;</th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th></g<>	roup>															
detail1:Detail															Ţ	
end of groupBan	11															
end of dataBand							1 1						1		<b>_</b>	

Step 19 Go to "DataSources" tab.



Drag and drop "CompanyName", "Address", "ContactName", "Phone" fields from the dataBand1 tree to the detail1 band. As a result TextBoxes are created. Value property is automatically filled with script loading data from the data source. Change size of the elements and locate them in the way shown in the picture below.

PERPEIUUMI	www.pernetuums	off.com		
software	www.perpetuaniet			
dataBand1:DataBand I	DataSource = Customers	8		
groupBand1:GroupBan	d_Group = GetData("Cus	stomers.CompanyName").ToString()	.Substring(0,1)	
header1:Header				
<group< th=""><th>&gt;</th><th></th><th></th><th></th></group<>	>			
detail1:Detail				
<(	lataBand1	<databand1< th=""><th><databand1< th=""><th>dalata Davad 4 (IID)a su a IID</th></databand1<></th></databand1<>	<databand1< th=""><th>dalata Davad 4 (IID)a su a IID</th></databand1<>	dalata Davad 4 (IID)a su a IID
["Com	panyName"]>	["ContactName"]>	["Address"]>	<databand [["phone"]=""></databand>
end of groupBand1				
end of dataBand1				

In order to view template structure, go to "DocumentTree" tab.

DocumentTree	•	<b>џ</b>	×
Document tree			
document1 page1 dataBand1 meader1 metaBox2 metaBox3 metaBox3 metaBox4 metaBox5			
🚰 Proper 🔚 DataSour [ Doc	um	ent'	Γ)



Save template, close Report Designer.

Add code to display report to the class constructor. Write RenderComplited event handler of the InlineReportSlot object

```
public Form1()
      {
            InitializeComponent();
            DataRow row = dataTable1.NewRow();
            row["CompanyName"] = "Alfreds Futterkiste";
            row["Address"] = "Obere Str. 57";
            row["ContactName"] = "Maria Anders";
            row["Phone"] = "030-0074321";
            dataTable1.Rows.Add(row);
            row = dataTable1.NewRow();
            row["CompanyName"] = "Ana Trujillo Emparedados y helados";
            row["Address"] = "Avda. de la Constitución 2222";
            row["ContactName"] = "Ana Trujillo";
            row["Phone"] = "(5) 555-4729";
            dataTable1.Rows.Add(row);
            row = dataTable1.NewRow();
            row["CompanyName"] = "Ernst Handel";
            row["Address"] = "Kirchgasse 6";
            row["ContactName"] = "Roland Mendel";
            row["Phone"] = "7675-3425";
            dataTable1.Rows.Add(row);
            row = dataTable1.NewRow();
            row["CompanyName"] = "Toms Spezialitäten";
            row["Address"] = "Luisenstr. 48";
            row["ContactName"] = "Karin Josephs";
            row["Phone"] = "0251-031259";
            row["Phone"] = "7675-3425";
            dataTable1.Rows.Add(row);
            row = dataTable1.NewRow();
            row["CompanyName"] = "Toms Spezialitäten";
            row["Address"] = "Luisenstr. 48";
            row["ContactName"] = "Karin Josephs";
            row["Phone"] = "0251-031259";
            dataTable1.Rows.Add(row);
            inlineReportSlot1.RenderCompleted += new
EventHandler(reportSlot RenderCompleted);
        }
        private void reportSlot RenderCompleted(object sender, EventArgs e)
        {
            using (PerpetuumSoft.Reporting.View.PreviewForm previewForm = new
PerpetuumSoft.Reporting.View.PreviewForm(inlineReportSlot1))
            {
                previewForm.WindowState = FormWindowState.Maximized;
                previewForm.ShowDialog(this);
            }
        }
```

### Step 21

Add two buttons onto the form (drag and drop "Button" element from the Toolbox onto the form).



Select Button element on the form, edit Text property on the property grid. Set Text = Template for one button and Text = Report for the other one.

Pro	perties	▲ Å ×	Prop	perties	<b>▲</b> Å	×
but	t <b>ton1</b> System.Wi	ndows.Forms.Buttc 👻	but	ton2 System.Wi	ndows.Forms.Butto	-
•	≵↓ 🔲 🖋			<b>≜</b> ↓ 🔲 🥖		
	ImageIndex	(none) 🔺		ImageIndex	(none)	*
	ImageKey	(none)		ImageKey	(none)	
	ImageList	(none)		ImageList	(none)	
	RightToLeft	No		RightToLeft	No	
C	Text	Template 📋 💽	0	Text	Report 👖 👻	
C	Text TextAlign	Template T	0	Text TextAlign	Report ] ▼ MiddleCenter	)
C	Text TextAlign TextImageRelati	Template T T MiddleCenter Overlay	C	Text TextAlign TextImageRelati	Report ] - MiddleCenter Overlay	)
C	Text TextAlign TextImageRelati UseMnemonic	Template j T MiddleCenter Overlay True	C	Text TextAlign TextImageRelati UseMnemonic	Report I - MiddleCenter Overlay True	)
C	Text TextAlign TextImageRelati UseMnemonic UseVisualStyleB	Template T Template T Template T Template T Template T Template True		Text TextAlign TextImageRelati UseMnemonic UseVisualStyleB	Report I - MiddleCenter Overlay True True	)
C	Text TextAlign TextImageRelati UseMnemonic UseVisualStyleB UseWaitCursor	Template T T	C	Text TextAlign TextImageRelati UseMnemonic UseVisualStyleB UseWaitCursor	Report     I     ▼       MiddleCenter     Overlay       True       True       False	

Create Click event handlers for the buttons – double click on the Button element on the form. Add code launching report generation to the event handler. For example, use the following code:

priv {	vate	void	but	ton1	_Click	(objec	t	sender,	EventArgs	e)
}	inli	neRep	port	Slot	1.Desi	gnTemp	lā	ate();		
priv {	vate	void	but	ton2	_Clic}	(objec	t	sender,	EventArgs	e)
}	inli	neRep	port	Slot	1.Prep	oare();				

#### **Step 22**

Click "Start Debugging" on the Visual Studio toolbar in order to start application.

File	Edit	View	Refactor	Project	Build	Debug	Team	Data	Tools	Test	Window	Help	
16	-	- 🞽	🖬 🥥   J	6 🗈 🛍	, <b>  -</b> ) -	• @ • <	<b>-</b> 🕫		Debug		- 🛛 🚈		- 🖂 🛃 😒 🏷 🛃 💶 - 🖕
1	- 🔁 👌	L_ A≳	17   🛊 🕯		2   🗆		Ş2 C3 4	2.3	-, ,				

Click the "Report" button in the opened application window.



Generated report is viewed in the Report Viewer.

🤣 document1 - Preview report		No. of Concession, name		- 0 ×
File View Navigate Document Help	. 158 %	6 6		
Δ				
Alfreds Futterkiste	Maria Anders	Obere Str. 57	030-0074321	
Ana Trujillo Emparedados y helad	Ana Trujillo	Avda. de la Constitución 2222	(5) 555-4729	E
E				
Ernst Handel	Roland Mendel	Kirchgasse 6	7675-3425	
т				
Toms Spezialitäten	Karin Josephs	Luisenstr. 48	7675-3425	
Toms Spezialitäten	Karin Josephs	Luisenstr. 48	0251-031259	
				* X
				r   Perpetuum
<				Þ

In order to edit template, close Report Viewer and press "Template" on the application form.





Similar sample in the Samples Center is Reports \Grouping\Groups.



# Hyperlinks and Bookmarks

Template of a report containing a list of customers grouped by the first letter. Report contains a table of contents with hyperlinks for quick navigation and links to customer websites and emails of contact persons.

### Step 1

Create new project in Microsoft Visual Studio. Select New\Project from the main menu.



Select Windows Forms Application, set project name – "Bookmarks_Hyperlinks", set directory to save the project to.



Change the project properties. Select the Project\Bookmarks_Hiberlinks Properties... item in the main menu.



Select the Target framework\.NET Framework4 item in the Application tab.

•	PE	RPETUUM software	/ww.perpetuumsoft.com					
		Application						
	Build Build Events		Configuration: N/A    Platfo					
			Assembly name:					
			SimpleReport					
	Debug		Target framework:					
R		Resources	.NET Framework 4 Client Profile 🔹					
		Services	.NET Framework 2.0 .NET Framework 3.0 .NET Framework 3.5					
	Settings		.NET Framework 3.5 Client Profile					
		Reference Paths	.NET Framework 4 .NET Framework 4 Client Profile Install other frameworks					

Press the "Yes" button in the opened window.

Target Fran	nework Change
2	Changing the Target Framework requires that the current project be closed and then reopened. Any unsaved changes within the project will be automatically saved. Changing Target Framework may require manual modification of project files in order to build. Are you sure you want to change the Target Framework for this project?
	Yes No Help

### Step 3

Open main form of the application by double click on the ``Form1.cs'' in the Solution Explorer.



Click "DataSet" element on the Toolbox and place DataSet onto the form.



Select "Untyped dataset", click "OK"

Add Dataset	? ×				
Choose a typed or untyped dataset to add to the designer.					
Typed dataset					
Name:	-				
Creates an instance of a typed dataset class already in your project. Choose this option to work with a dataset that has a built-in schema. See Help for details on generating typed datasets.					
Output dataset					
Creates an instance of an untyped dataset class of type System.Data.DataSet. Choose this option when you want a dataset with no schema.					
OK Car	ncel				

The component is available in the lower part of the window.



### Step 4

Select dataSet1 in the form editor. On the property grid, select Tables property, click button  $\overline{\mbox{lm}}$  in order to open property editor.



Click "Add" in order to add table. Set property TableName = Customers.

Tables Collection Editor				, and the second s	X
Members:		Cus	tomers Properties:		
0 Customers		⊿	Data		
		⊳	(ApplicationSetting:		
			Columns	(Collection)	
			Constraints	(Collection)	
			DisplayExpression		
			MinimumCapacity	50	
			Namespace		=
			Prefix		
			PrimaryKey	DataColumn[]	
			TableName	Customers	
		۵	Design		
			(Name)	dataTable1	
	X		GenerateMember	True	
			Modifiers	Private	
Add		۵	Misc		-
				Clo	ose

### Step 5

Select Columns property, click button  $\square$  in order to open property editor.

Tables Collection Editor					?	
Members:		Cus	tomers Properties:			
0 Customers		۵	Data			
		⊳	(ApplicationSetting			
		(	Columns	(Collection)	)	
			Constraints	(Collection)		
			DisplayExpression			
			MinimumCapacity	50		
			Namespace			
			Prefix			
			PrimaryKey	DataColumn[]		
			TableName	Customers		
		⊿	Design			
			(Name)	dataTable1		
	X		GenerateMember	True		
			Modifiers	Private		
Add		۵	Misc			

Click "Add" to add a new column. Add three columns. Set ColumnName property to "CompanyName", "City", and "ContactName".

Columns Collection Editor					?	X
Members:	(	Con	ntactName Properties	8		
0 CompanyName		۵	Data			*
1 City		$\triangleright$	(ApplicationSetting:			
2 ContactName			AllowDBNull	True		-
			AutoIncrement	False		-
			AutoIncrementSeed	0		-
			AutoIncrementStep	1		=
			Caption	ContactName		-
		(	ColumnName	ContactName	$\sim$	-
			DataType	System.String		_
			DateTimeMode	UnspecifiedLoc	al	
			DefaultValue	<dbnull></dbnull>		
			Expression			
X			MaxLength	-1		
			Namespace			
Add			Prefix			-
					Close	

## Step 6

Right click on the form and select "View Code" in the context menu to view code.

PER	ERPETUUM www.perpetuumsoft.com							
F	orm1.cs [Design]* ×	(						
	- Form1							
		View Code F7						
		Lock Controls     Paste Ctrl+V						
		Properties						

Add the following code to the class constructor in order to fill data source.

```
public Form1()
{
    InitializeComponent();
    DataRow row = dataTable1.NewRow();
    row["CompanyName"] = "Alfreds Futterkiste";
    row["City"] = "Boston";
    row["ContactName"] = "Maria Anders";
   dataTable1.Rows.Add(row);
    row = dataTable1.NewRow();
    row["CompanyName"] = "Ana Trujillo Emparedados y helados";
    row["City"] = "London";
    row["ContactName"] = "Ana Trujillo";
   dataTable1.Rows.Add(row);
   row = dataTable1.NewRow();
   row["CompanyName"] = "Ernst Handel";
    row["City"] = "Paris";
    row["ContactName"] = "Roland Mendel";
    dataTable1.Rows.Add(row);
    row = dataTable1.NewRow();
    row["CompanyName"] = "Toms Spezialitäten";
    row["City"] = "Moscow";
    row["ContactName"] = "Karin Josephs";
   dataTable1.Rows.Add(row);
}
```

### Step 7

Get back to the application form by clicking the "Form1.cs[Design]" tab.



Click on the "ReportManager" on the Toolbox and place this component onto the form. This component is designed to store collections of report templates and data sources.

Toolbo	< ▼+	×				
> Olap ModelKit						
Chai	rt ModelKit					
⊳ Instr	umentation ModelKit					
A Report Sharp-Shooter						
k	Pointer					
0	ReportDesigner					
0	DesignerErrorList					
DesignerDataSourcesTree						
TIFF	TiffExportFilter					
PNC	PngExportFilter					
	🚍 DesignerStatusBar					
	ReportManager					
EHF	EmfExportFilt					
	DesignerDocumentTree	Ξ				
	DesignerToolBox					
-	IngEvportFilter					

The component is available in the lower part of the window.

🖻 dataSet1	reportManager1

### Step 8

On the property grid, initialize OwnerForm property of the ReportManager by selecting the form it is located on.



#### Step 9

Double click on ReportManager to open ReportManager editor.

🖳 Form1				
		ReportManager editor	21	
		L3		
	l	Add Delete I	Run Designer	OK Cancel

6

Go to "Data sources" tab, click "Add", set data source name – "Customers", select data source value – "dataSet1.Customers".



Add

Edit

Go to "Reports" tab, click "Add" and select "InlineReportSlot".

Delete

OK

Cancel

ReportManager editor	
Reports Data sources	
Add Delete Run Designer	
FileReportSlot	OK Cancel
InlineReportSlot	
UriReportSlot	

Set name of the report in the property ReportName – "Bookmarks_Hyperlinks".

Click "Run Designer" in order to open template editor - Report Designer.



Create new empty template – select File\New from the main menu.



Select "Blank Report" in the Wizards Gallery and click "OK".

•	PERPETUUM software	ww.perpetuumsoft.com			
	Wizards Galler	у			23
	New Saved Blank Report Standard Report Pivot table Repo	t prt			
			Load from file	ОК	Cancel

Click the "Properties" tab of the tool window in the right part of the designer.





Properties 👻 🕈 🗙					
docum st1 Document 🔹					
4	Appearance				
⊳	GraphicsSettings	PerpetuumSoft.Reporting.			
	MasterReport				
	ShowObjectBour	True			
۵	Behaviour				
	DoublePass	False			
	InvalidRenderLer	ThrowException			
۵	Design				
	Name	document 1			
۵	Grid Settings				
	GridStep	0,5 cm			
	ShowGrid	True			
	SnapToGrid	True			
۵	Misc				
	DataSources	(Collection)			
	Delete EmptyPage	False			
	Description				
	MetricUnit	Centimeter			
	Parameters	(Collection)			
	Title				
۵	Render				
	StyleSheet				
۵	Script				
	CommonScript				
	CompilerVersion				
	CustomLanguage				
	GenerateScript				
	Imports				
	ScriptLanguage	VisualBasicNET			
CommonScript Determines code of the main script sections. Allows you to declare global script variables a					
<b>.</b>	riope 😑 Dat	aso			

Set property ScriptLanguage = CSharp.


Press "DataBand" button on the Insert tab in the group Container.



Click on the template area to add DataBand band to the template.

Set data source in the property DataSource = Customers.

17 i 18 i	19 🕎	Properties 🔹	ņ	×
	Â	dataBand1 DataBand		•
		Appearance     StyleName     ToolTip		
	_	Data     DataSource     Customers		•
(none) 				

#### Step 15

Press "GroupBand" button on the Insert tab in the group Container.



🛄 BarCode 🧮 WinFormsControl

Illustration

{
BandContainer

Footer

Container

PivotTable

Click on the DataBand area to add GroupBand inside DataBand.

Picture

Set property GroupExpression = GetData("Customers.CompanyName").ToString().Substring(0,1).

Pro	perties	<b>-</b> ₽ X
gro	upBand1 GroupBa	nd 🔹
	〕⊉↓ │ <mark>ा</mark> ा ▫₋ │ ा	
۵	Appearance	
	StyleName	
	ToolTip	
۵	Data	
C	Group Expression	GetData("Customers)
	Order	KeepOriginal
	SortExpression	
	Tag	

RTF RichText

Text

## **Step 16**

New

Page 📄 PageFooter

Page

Press "Header" button on the Insert tab in the group Container.

File	Home	Insert	Layout Vie	ew						
	PageHead	er T	TextBox	*	<u>र</u> Shape	ChartControl	📒 DataBand	SideBySide	Header	📒 SubReport
New	PageOverla	ay T	AdvancedText	Picture	ZipCode	🧟 Widget	E GroupBand	🖶 CrossBand	💻 Detail 😽	📑 Content
Page [	PageFoote	r BTF	RichText	ricture	BarCode		{ BandContainer		Footer	PivotTable
	Page		Text		Illust	ration		Containe	er	

Click on the GroupBand area to add Header band inside GroupBand.

#### **Step 17**

Press button "TextBox" on the Insert tab in the group Text.



Click on the Header area to add TextBox element inside Header.

Click "Bindings" button on the "Properties" tab. Set properties Value = "Go to "+dataBand1["CompanyName"].ToString().Substring(0,1), Bookmark = "Letter_"+dataBand1["CompanyName"].ToString().Substring(0,1), Hyperlink = "#" + dataBand1["CompanyName"].ToString().Substring(0,1).

Pro	perties	- † ×
text	Box1 TextBox	•
	) 2 4   📺 🖪 🛙	-
۵	Appearance	
	Angle	
	Border	
	Fill	
	Font	
	Margins	•
	StyleName	2
	TextAlign	•
	TextFill	
	ToolTip	
	Value	"Go to "+dataBand1["C
	Value Data	"Go to "+dataBand1["C
4	Value Data Tag	"Go to "+dataBand1["C
4	Value Data Tag Layout	"Go to "+dataBand1["C
4	Value Uata Tag Layout Location	"Go to "+dataBand1["C
4	Value <b>Data</b> Tag <b>Layout</b> Location Size	"Go to "+dataBand1["C
4	Value Data Tag Layout Location Size Navigation	"Go to "+dataBand1["C
4	Value Data Tag Layout Location Size Navigation Bookmark	"Go to "+dataBand1["C "Letter_"+dataBand1["C
4	Value <b>Data</b> Tag <b>Layout</b> Location Size Navigation Bookmark Hyperlink	"Go to "+dataBand1["C "Letter_"+dataBand1["C "#" + dataBand1["Comp
4 4	Value <b>Data</b> Tag <b>Layout</b> Location Size Navigation Bookmark Hyperlink <b>Render</b>	"Go to "+dataBand1["C "Letter_"+dataBand1["C "#" + dataBand1["Comp
4	Value <b>Data</b> Tag <b>Layout</b> Location Size Navigation Bookmark Hyperlink Hyperlink <b>Kender</b> CanGrow	"Go to "+dataBand1["C "Letter_"+dataBand1["C "#" + dataBand1["Comp
	Value <b>Data</b> Tag <b>Layout</b> Location Size Navigation Bookmark Hyperlink Hyperlink Hender CanGrow CanShrink	"Go to "+dataBand1["C "Letter_"+dataBand1["C "#" + dataBand1["Comp
4	Value	"Go to "+dataBand1["C "Letter_"+dataBand1["C "#" + dataBand1["Comp

The first template page looks as follows:

dataBand1:DataBand DataSource = Customers
groupBand1:GroupBand Group = GetData("Customers.CompanyName").ToString().Substring(0,1).
header1:Header
Go to "+dataBand1
["CompanyName"].To
end of groupBand1
end of dataBand1

## **Step 18**

Press button "NewPage" on the Insert tab in the group Page to add a new template.



### **Step 19**

Add DataBand to the second page. Set property DataSource = Customers.

### Step 20

Add GroupBand to the dataBand2 band. Set property GroupExpression = dataBand2["CompanyName"].ToString().Substring(0,1).



Add Header band to the groupBand2 band. Add TextBox. Click "Bindings" button, set properties Value = dataBand2["CompanyName"].ToString().Substring(0,1), Bookmark = "#" + dataBand2["CompanyName"].ToString().Substring(0,1).

## Step 22

Add one more TextBox element to the header2 band. Set properties Text = Back, Hyperlink = Back.



## Step 23

Press "Detail" button on the Insert tab in the group Container.

File Home In:	sert Layout Vie	ew	
New PageFooter	T TextBox AdvancedText RT RichText	Shape     ChartControl       Picture     ZipCode     Widget       BarCode     WinFormsControl	Image: Side By Side       Image: Side By Side         Image: Side By Side By Side       Image: Side By Side By Side         Image: Side By Side

Click on the groupBand2 area to add Detail band inside groupBand2.

Go to "DataSources" tab.



Drag and drop "CompanyName" and "ContactName" fields from the dataBand1 to the detail1 band. As a result TextBoxes are created. Value property is automatically filled with script loading data from the data source.

## Step 25

Select the first TextBox element. Click "Bindings" button, set property Hyperlink = "http://www." + dataBand2["CompanyName"].ToString() + ".com". Select the second



TextBox element, set property Hyperlink = "mailto:" +

dataBand2["ContactName"].ToString() + "@" + dataBand2["CompanyName"].ToString() + ".com".

The second template page should look as follows:

dataBand2:DataBand DataSource = Customers	
groupBand2:GroupBand Group = dataBand2["CompanyName"].ToString().Substring(0,1)	
header2:Header	
<databand2["companyname"].tostring().subst< td=""><td>Back</td></databand2["companyname"].tostring().subst<>	Back
detail1:Detail	
<pre><databand2["companyname"]> </databand2["companyname"]></pre> <databand2["contactname"]></databand2["contactname"]>	
end of groupBand2	
end of dataBand2	

## Step 26

Save template, close Report Designer.

#### Step 27

Add code to display report to the class constructor. Write RenderComplited event handler of the InlineReportSlot object.

```
public Form1()
        {
            InitializeComponent();
            DataRow row = dataTable1.NewRow();
            row["CompanyName"] = "Alfreds Futterkiste";
            row["City"] = "Boston";
            row["ContactName"] = "Maria Anders";
            dataTable1.Rows.Add(row);
            row = dataTable1.NewRow();
            row["CompanyName"] = "Ana Trujillo Emparedados y helados";
            row["City"] = "London";
            row["ContactName"] = "Ana Trujillo";
            dataTable1.Rows.Add(row);
            row = dataTable1.NewRow();
            row["CompanyName"] = "Ernst Handel";
            row["City"] = "Paris";
            row["ContactName"] = "Roland Mendel";
            dataTable1.Rows.Add(row);
            row = dataTable1.NewRow();
            row["CompanyName"] = "Toms Spezialitäten";
            row["City"] = "Moscow";
            row["ContactName"] = "Karin Josephs";
            dataTable1.Rows.Add(row);
            inlineReportSlot1.RenderCompleted += new
EventHandler(reportSlot RenderCompleted);
        }
        private void reportSlot RenderCompleted(object sender, EventArgs e)
        {
            using (PerpetuumSoft.Reporting.View.PreviewForm previewForm = new
PerpetuumSoft.Reporting.View.PreviewForm(inlineReportSlot1))
            {
                previewForm.WindowState = FormWindowState.Maximized;
                previewForm.ShowDialog(this);
            }
        }
```

#### **Step 28**

Add two buttons onto the form (drag and drop "Button" element from the Toolbox onto the form).



Select Button element on the form, edit Text property on the property grid. Set Text = Template for one button and Text = Report for the other one.

Properties	<b>→</b> ‡ 3	×	Prop	perties		ч×
button1 System.Wi	ndows.Forms.Buttc	-	button2 System.Windows.Forms.Buttc +			
2↓ 3				<b>≜</b> ↓ 🔲 🥖		
ImageIndex	(none)	<b>~</b>		ImageIndex	(none)	*
ImageKey	(none)			ImageKey	(none)	
ImageList	(none)			ImageList	(none)	
RightToLeft	No			RightToLeft	No	_
Text	Template 📋 💌	F	0	Text	Report ]	-)
TextAlign	MiddleCenter			TextAlign	MiddleCenter	
TextImageRelati	Overlay			TextImageRelati	Overlay	
UseMnemonic	True			UseMnemonic	True	
UseVisualStyleB	True			UseVisualStyleB	True	
UseWaitCursor	False			UseWaitCursor	False	

Create Click event handlers for the buttons – double click on the Button element on the form. Add code launching report generation to the event handler. For example, use the following code:

```
private void button1_Click(object sender, EventArgs e)
{
    inlineReportSlot1.DesignTemplate();
}
private void button2_Click(object sender, EventArgs e)
{
    inlineReportSlot1.Prepare();
}
```

#### **Step 29**

Click "Start Debugging" on the Visual Studio toolbar in order to start application.

File	Edit	View	Refactor	Project	Build	Debug	Team	Data	Tools	Test	Window	Help	
16	-	- 🞽	🖬 🥥   J	6 🗈 🛍	, <b>  -</b> ) -	• (* • <	<b>-</b> 🕫		Debug		- 🛛 🚈		- 🖂 🛃 😒 🏷 🛃 💶 - 🖕
1	- 🔁 👌	L_ A≳	17   🛊 🕯		2   🗆		Ş2 C3 4	2.3	-, ,				

Click the "Report" button in the opened application window.



Generated report is viewed in the Report Viewer.

The first page:



You can navigate through the report using hyperlinks – click on the hyperlink to open the corresponding group.

The second page:





Click on the company name and you will open company webpage in the browser. Click on the contact name and mail client will open to send email to this person.

To edit report template, close Report Viewer and click "Template" on the application form.



Similar sample in the Samples Center is Reports\Special features\Hyperlinks & Bookmarks.



## Totals

Template of a report containing a list of products, price of every product and total order price.

### Step 1

Create new project in Microsoft Visual Studio. Select New\Project from the main menu.



Select Windows Forms Application, set project name – "Aggregate", set directory to save the project to.

New Project					<u> १</u> – ×
Recent Templates		.NET Fra	mework 4 🔹 Sort by: Default	- III III	Search Installed Templates
Installed Templates  Visual C#		<b>c</b> ≢	Windows Forms Application	Visual C#	<b>Type:</b> Visual C# A project for creating an application with a
Windows Web		<b>*</b>	WPF Application	Visual C#	Windows Forms user interface
Cloud Reporting			Console Application	Visual C#	
<ul> <li>SharePoint</li> <li>Silverlight</li> </ul>		<b>c</b> ≇	Class Library	Visual C#	
Test WCF		[∞] c≉	WPF Browser Application	Visual C#	
Workflow  Other Languages		C♯	Empty Project	Visual C#	
<ul> <li>Other Project Type</li> <li>Database</li> <li>Test Projects</li> </ul>	s	<b>≣c</b> #	Windows Service	Visual C#	
Online Templates		•Cf	WPF Custom Control Library	Visual C#	
		<b>4</b> C#	WPF User Control Library	Visual C#	
		<mark>⊞</mark> C [#]	Windows Forms Control Library	Visual C#	
Name:	Aggregate				
Location:	c\(		\documents\visual studio 2010\Projects	•	Browse
Solution name:	Aggregate				Create directory for solution
					OK Cancel

Change the project properties. Select the  $\mbox{Project}\$  properties... item in the main menu.

00 A	٩gg	rega	te - Mio	rosof	t Vi	sual Stu	dio (Adm	inistrato	r)		
File	E	dit	View	Proje	ect	Build	Debug	Team	Data	Format	Tools
: C	<b>-</b> ¢	<b>8</b> 20  ₽	• 🚰 옥 릨		Ad Ad	ld Wind ld User ( ld Comr	ows Form Control	I			
p;	Fo	rm1.	.cs [Des	÷.	Ad	ld Class.				Shift+A	lt+C
ita Sourc			Form1	•••• •••	Ad Ad	ld New I Id Existir	item ng Item			Ctrl+Shi Shift+A	ift+A lt+A
e X-T				ð	Exo Sh	clude Fr ow All F	om Proje iles	ct			
polbox					Ad Ad	ld Refere	ence :e Referen	ice			
				49	Set Re	t <mark>as Star</mark> fresh Pro	t <mark>Up Proje</mark> oject Too	<b>ct</b> Ibox Iten	ns		
				E	Ag	igregate	Propertie	25	2	-	

Select item Target framework\.NET Framework4 from the tab Application.

Application	
Build	Configuration: N/A 👻 Plat
Build Events	Assembly name:
	SimpleReport
Debug	Target framework:
Resources	.NET Framework 4 Client Profile 🔹 🗸
Services	.NET Framework 2.0 .NET Framework 3.0
Settings	.NET Framework 3.5 Client Profile
Reference Paths	.NET Framework 4 .NET Framework 4 Client Profile Install other frameworks

In the opened window press the "Yes" button.



Target Fran	mework Change
?	Changing the Target Framework requires that the current project be closed and then reopened. Any unsaved changes within the project will be automatically saved. Changing Target Framework may require manual modification of project files in order to build. Are you sure you want to change the Target Framework for this project?
	Yes No Help

Open main form of the application by double click on the "Form1.cs" in the Solution Explorer.



Click "DataSet" element on the Toolbox and place DataSet onto the form.



Select "Untyped dataset", click "OK"



The component is available in the lower part of the window.



#### Step 4

Select dataSet1 in the form editor. On the property grid, select Tables property, click button  $\Box$  in order to open property editor.

Properties 🔹 무 🗙							
dataSet1 System.Data.DataSet -							
<u>₽</u> 2↓ <b>□</b> <i>¥</i> <b>□</b>							
	Namespace		*				
	Prefix						
	Relations	(Collection)					
	Tables	(Collection)	<b>]</b>				
4	Design	U.					
	(Name)	dataSet1					
	GenerateMemb	True	=				
	Modifiers	Private	-				
4	Misc						
	EnforceConstrai	True					
	RemotingForma	Xml	-				
Tables							
The collection that holds the tables for this DataSet.							

Click "Add" in order to add table. Set property TableName = Order.

Tables Collection Editor				(B)	
Members:		Ord	ler Properties:		
0 Order		۵	Data		
		⊳	(ApplicationSetting		
			Columns	(Collection)	
			Constraints	(Collection)	
			DisplayExpression		
			MinimumCapacity	50	
			Namespace		:
			Prefix		
			PrimaryKey	DataColumn[]	
		(	TableName	Order	
		۵	Design		
			(Name)	dataTable1	
	×		GenerateMember	True	
			Modifiers	Private	
Add		۵	Misc		

 $(\mathbf{S})$ 

Select Columns property, click button  $\overline{\square}$  in order to open property editor.

Tables Collection Editor					? X	
Members:		Ord	ler Properties:			
0 Order		۵	Data		*	
		⊳	(ApplicationSetting			
		(	Columns	(Collection)	)	
			Constraints	(Collection)		
			DisplayExpression			
			MinimumCapacity	50		
			Namespace		E	
			Prefix			
			PrimaryKey	DataColumn[]		
			TableName	Order		
		۵	Design			
			(Name)	dataTable1		
	X		GenerateMember	True		
	••		Modifiers	Private		
Add		۵	Misc		-	
					Close	

Click "Add" to add a new column. Add two columns. Set ColumnName property to "Product", "Price" correspondingly.

Columns Collection Editor				3	
Members:		Pric	e Properties:		
0 Product	7	۵	Data		
1 Price		⊳	(ApplicationSetting:		
			AllowDBNull	True	
			AutoIncrement	False	
			AutoIncrementSeed	0	
			AutoIncrementStep	1	
			Caption	Price	_
		(	ColumnName	Price	
			DataType	System.String	
			DateTimeMode	UnspecifiedLocal	
			DefaultValue	<dbnull></dbnull>	
			Expression		
	X		MaxLength	-1	
			Namespace		
Add			Prefix		

Right click on the form and select "View Code" in the context menu to view code.

Form1.cs [Design]* ×			
🖳 Form1			×
	F	View Code	F7
	8	Lock Controls	
	ß	Paste	Ctrl+V
	2	Properties	

Add the following code to the class constructor in order to fill data source.

```
public Form1()
{
    InitializeComponent();
    DataRow row = dataTable1.NewRow();
    row["Product"] = "Chai";
```

row["Price"]="14.40"; dataTable1.Rows.Add(row); row = dataTable1.NewRow(); row["Product"] = "Chang"; row["Price"] = "15.20"; dataTable1.Rows.Add(row); row = dataTable1.NewRow(); row["Product"] = "Ipoh Coffee"; row["Price"] = "46.00"; dataTable1.Rows.Add(row);

}

Get back to the application form by clicking the "Form1.cs[Design]" tab.

Form1.cs* ×	Form1.cs [Design]*
😤 Aggregate	.Form1
⊡using	System;
using	System.Collection
using	System.Component/
ucing	System Data:

Click on the "ReportManager" on the Toolbox and place this component onto the form. This component is designed to store collections of report templates and data sources.



The component is available in the lower part of the window.

🔊 dataSet1	reportManager1

### Step 8

On the property grid, initialize OwnerForm property of the ReportManager by selecting the form it is located on.



Double click on ReportManager to open ReportManager editor.

Form1 🗆 🗉 🔀	
ReportManager editor	
Reports Data sources	
Add Delete Run Designer	
	OK Cancel
In ataSet1 In reportManager1	

Go to "Data sources" tab, click "Add", set data source name – "Order", select data source value – "dataSet1.Order".



Go to "Reports" tab, click "Add" and select "InlineReportSlot".

Reports       Data sources	ReportManager editor		
	Reports Data sources		
Add Delete Run Designer	Add Delete Run Designer		
FileReportSlot	FileReportSlot	ОК	Cancel
	InlineReportSlot		

Set name of the report in the property ReportName – "Aggregate".

Click "Run Designer" in order to open template editor - Report Designer.

Tables Collection Editor				E	
Members:		Ord	ler Properties:		
0 Order		۵	Data		
		⊳	(ApplicationSetting		
			Columns	(Collection)	
			Constraints	(Collection)	
			DisplayExpression		
			MinimumCapacity	50	
			Namespace		
			Prefix		
			PrimaryKey	DataColumn[]	
		(	TableName	Order	
		۵	Design		
			(Name)	dataTable1	
	×		GenerateMember	True	
			Modifiers	Private	
Add		Δ	Misc		

Create new empty template – select File\New from the main menu.

5 CM	ō, 🗈 🗎		rt Sharp-Sh	ooter Designer
File	Home	Insert	Layout	View
	New		Ctrl+N	
	Open		Ctrl+O	Font
H	Save		Ctrl+S	
B	Save As	Ctr	l+Shift+S	
	Select Langu	iage		
	🖺 Set	ttings 🗙	Exit Design	ner

Select "Blank Report" in the Wizards Gallery and click "OK".

•	PERPETUUM www.perpetuumsoft.com software	
	📴 Wizards Gallery	23
	New Saved	
	Blank Report	
	Standard Report	
	Pivot table Report	
	Load from file OK	Cancel

Click the "Properties" tab of the tool window in the right part of the designer.





Properties 🝷 🖣 🗙									
docum st1 Document									
۵	Appearance								
⊳	GraphicsSettings	PerpetuumSoft.Reporting.							
	MasterReport								
	ShowObjectBour	True							
۵	Behaviour								
	DoublePass	False							
	InvalidRenderLer	ThrowException							
۵	Design								
	Name	document 1							
4	Grid Settings								
	GridStep	0,5 cm							
	ShowGrid	True							
	SnapToGrid	True							
۵	Misc								
	DataSources	(Collection)							
	DeleteEmptyPage	False							
	Description								
	MetricUnit	Centimeter							
	Parameters	(Collection)							
	Title								
۵	Render								
	StyleSheet								
۵	Script								
	CommonScript								
	CompilerVersion								
	CustomLanguage								
	GenerateScript								
	Imports								
	ScriptLanguage	VisualBasicNET							
CommonScript									
Allo	ermines code of the ws you to declare	global script variables a							
2	Prope 🔚 Dat	aSo 📄 Document							

Set property ScriptLanguage = CSharp.



Press "DataBand" button on the Insert tab in the group Container.



Click on the template area to add DataBand band to the template.

Set data source in the property DataSource = Order.

7 I	18	i.	19	5	Properties	•	ņ	×
17 I	18 none)		19	► 123	Properties dataBand1 DataBand Data Data DataSource	•	<b>д</b>	× •

### Step 15

Select Totals property, click button 🗔 to open editor of the Total property collection.

Pro	perties	<b>→</b> ₽ >	¢						
dat	dataBand1 DataBand								
	)≵↓   📰 ª≟   🗉	9							
۵	Appearance								
	StyleName								
	ToolTip								
۵	Data								
	DataSource	Order							
	FilterExpression								
	InstanceCount	0							
	Sort	(Collection)							
	Tag								
(	Totals	(Collection)	J						
4	Design		15						

In the Collection editor, click + button to add aggregation function. Set the following properties: AggregateFunction = Sum, Expression = dataBand1["Price"], Name = Sum.

🕎 Collection Editor	- 8 %
Members	Properties
Sum	✓       Misc         AggregateFunction       Sum         Expression       dataBand1["Price"]. Na         Name       Sum
	Name Name is total
	OK Cancel

## Step 16

Press "Detail" button on the Insert tab in the group Container.

File	Home	Insert	Layout Vie	ew						
	PageHeade	er T	TextBox	*	💽 Shape	ChartControl	{ <b>⊟</b> DataBand	SideBySide	Header	📒 SubReport
New	PageOverla	ay 🔳	AdvancedText	Picture	ZipCode	🧟 Widget	E GroupBand	🖶 CrossBand	😑 Detail	🗲 Content
Page	PageFoote	r RTF	RichText	, icture	BarCode	WinFormsControl	{ BandContainer		Footer	PivotTable
Page Text				Illust	ration	Container				

Click on the DataBand area to add Detail band inside DataBand.

## Step 17

Go to "DataSources" tab.



Drag and drop "Product" and "Price" fields from the dataBand1 tree to the detail1 band. As a result TextBoxes are created. Value property is automatically filled with script loading data from the data source.

Change size of the elements and locate them in the way shown in the picture below.

dataBand1:DataBand DataSource = Order	
detail1:Detail	
<pre><databand1["product"]></databand1["product"]></pre>	<databand1["price"]></databand1["price"]>
end of dataBand1	



To display footer containing summarized value of the Price field, create Footer band – press "Footer" button on the Insert tab in the group Container.

File	Home	Insert	Layout Vi	ew						
	PageHead	er T	TextBox	×	<u> S</u> hape	ChartControl	{ <mark>≡</mark> DataBand	SideBySide	Header	📕 SubReport
New	PageOverla	ay T	AdvancedText	Picture	ZipCode	🕵 Widget	E GroupBand	🖶 CrossBand	💻 Detail	📥 Content
Page [	PageFoote	r RTF	RichText	ricture	BarCode	WinFormsControl	{🔳 BandContainer		Footer	PivotTable
Page Text					Illust	ration		Containe	er 😽	

Click on the DataBand area to add Footer inside DataBand.

### Step 19

Press button "TextBox" on the Insert tab in the group Text.



Click on the Footer band area to add TextBox element inside Footer.

Set Value property to "GetTotal("Sum")".

					0	
Name	textBox3	Binding	Value	- 3	fx	GetTotal("Sum")
		_				· ·

Report Template:

d1["Price"]>
tal("Sum")>

### Step 20

Save template, close Report Designer.

### Step 21

Add code to display report to the class constructor. Write RenderComplited event handler of the InlineReportSlot object.

```
public Form1()
{
    InitializeComponent();
    DataRow row = dataTable1.NewRow();
    row["Product"] = "Chai";
    row["Price"]="14.40";
    dataTable1.Rows.Add(row);
    row = dataTable1.NewRow();
    row["Product"] = "Chang";
    row["Price"] = "15.20";
    dataTable1.Rows.Add(row);
    row = dataTable1.NewRow();
```

```
row["Product"] = "Ipoh Coffee";
row["Price"] = "46.00";
dataTable1.Rows.Add(row);
inlineReportSlot1.RenderCompleted += new
EventHandler(reportSlot_RenderCompleted);
}
private void reportSlot_RenderCompleted(object sender, EventArgs e)
{
using (PerpetuumSoft.Reporting.View.PreviewForm previewForm = new
PerpetuumSoft.Reporting.View.PreviewForm(inlineReportSlot1))
{
previewForm.WindowState = FormWindowState.Maximized;
previewForm.ShowDialog(this);
}
}
```

Add two buttons onto the form (drag and drop "Button" element from the Toolbox onto the form).



Select Button element on the form, edit Text property on the property grid. Set Text = Template for one button and Text = Report for the other one.



Create Click event handlers for the buttons – double click on the Button element on the form. Add code launching report generation to the event handler. For example, use the following code:



Click "Start Debugging" on the Visual Studio toolbar in order to start application.

File	Edit	View	Refactor	Project	Build	Debug	Team	Data	Tools	Test	Window	Help	
16	-	• 💕	🖬 🕼   8	k 🖻 🗎	- <b>-</b>	· (° - ,	<b>F</b> - E,		Debug		· 🛛 🌁 🗌		- 🖂 🕾 💀 💀 🛃 🖘 - 🖕
	- 🔁 🖣	L_ A.≥	1 🗐 🦛 🕯	<b>⊨   '</b> ≣ 1	2 🗆	<b>P Q</b>	Şa 🗛 🗸	2.8	-, ,				

Click the "Report" button in the opened application window.

Generated report is viewed in the Report Viewer.

🐉 document1 - Preview report	
File View Navigate Document Help	
🚔 🎦 📑 🕼 🖬 🇰 🗟 📐 🕎 역, 역, 역(백) 📅 🌅 🛖 158 % 💿 + 🗋 🗮 구 🕇 🕂 🛨 1 😋 😂	
Chai	14.40
Chang	15.20
Ipoh Coffee	46.00
	75,6

To edit report template, close Report Viewer and click "Template" on the application form.





Similar sample in the Samples Center is Reports \Grouping \Group aggregates.



## **Nested Group**

Template of a report containing a list of customers grouped by countries and cities.

#### Step 1

Create new project in Microsoft Visual Studio. Select New\Project from the main menu.



Select Windows Forms Application, set project name – "Group", set directory to save the project to.

New Project					2 <b>X</b>
Recent Templates		.NET Fra	mework 4 🔹 Sort by: Default	▼ III (III)	Search Installed Templates
Installed Templates  Visual C#		<b>_</b> c#	Windows Forms Application	Visual C#	Type: Visual C# A project for creating an application with a
Windows Web		<b>*</b>	WPF Application	Visual C#	Windows Forms user interface
Cloud Reporting			Console Application	Visual C#	
<ul> <li>SharePoint</li> <li>Silverlight</li> </ul>		<b>c</b> ♯	Class Library	Visual C#	
Test WCF		[∞] C#	WPF Browser Application	Visual C#	
Workflow  Other Languages  Other Desired Terror		C#	Empty Project	Visual C#	
<ul> <li>Other Project Type</li> <li>Database</li> <li>Test Projects</li> </ul>	5	<b>≣c</b> #	Windows Service	Visual C#	
Online Templates		•Cf	WPF Custom Control Library	Visual C#	
		<b>•••</b>	WPF User Control Library	Visual C#	
		E CR	Windows Forms Control Library	Visual C#	
Name:	Group				
Location:	c:\	-	\documents\visual studio 2010\Projects	•	Browse
Solution name:	Group				<ul> <li>Create directory for solution</li> <li>Add to source control</li> </ul>
					OK

Change the project properties. Select the Project\Group Properties... item in the main menu.

00	iro	up -	Microso	oft Vis	ual	Studio (	Administ	rator)			
File	E	Edit	View	Proje	ect	Build	Debug	Team	Data	Format	Tools
1	-		• 凒		Ad	ld Wind	ows Form				
1	‡	₽.	후 릐	1	Ad	ld User (	Control				
-	Fo	rm1	cs [Des	7	Ad	ld Comp	ponent				
			.00	~	Ad	ld Class.				Shift+A	t+C
ata S			Earma1	<b>.</b>	Ad	ld New I	item			Ctrl+Shi	ift+A
ourc			Formi	:::	Ad	ld Existir	ng Item			Shift+Alt+A	
8					Exc	clude Fr	om Proje	ct			
Ť				ð	Sh	ow All F	iles				
oolbo					Ad	ld Refere	ence				
×					Ad	ld Servio	e Referen	ice			
					Set	t as Star	tUp Proje	ct			
				49	Re	fresh Pr	oject Too	lbox Item	ns		
					Gr	oup Pro	perties			5	

Select item Target framework\.NET Framework4 from the tab Application.

Application	Configuration: N/A
Build	
Build Events	Assembly name:
Dund Erents	SimpleReport
Debug	Target framework:
Resources	.NET Framework 4 Client Profile 🔹
Services	.NET Framework 2.0 .NET Framework 3.0
Settings	.NET Framework 3.5 Client Profile
Reference Paths	.NET Framework 4 Client Profile
	· · · · ·

In the opened window press the "Yes" button.



Target Fran	nework Change
?	Changing the Target Framework requires that the current project be closed and then reopened. Any unsaved changes within the project will be automatically saved. Changing Target Framework may require manual modification of project files in order to build. Are you sure you want to change the Target Framework for this project?
	Yes No Help

Open main form of the application by double click on the "Form1.cs" in the Solution Explorer.



Click "DataSet" element on the Toolbox and place DataSet onto the form.



Select "Untyped dataset", click "OK"



The component is available in the lower part of the window.



### Step 4

Select dataSet1 in the form editor. On the property grid, select Tables property, click button  $\Box$  in order to open property editor.

Pro	Properties 🔹 후 부 🗙								
dat	dataSet1 System.Data.DataSet 🔹								
<u>₽</u> 2↓ 🔲 🗲 🖂									
	Namespace		*						
	Prefix								
	Relations	(Collection)							
	Tables	(Collection)							
4	Design	20							
	(Name)	dataSet1							
	GenerateMemb	True	=						
	Modifiers	Private	-						
4	Misc								
	EnforceConstrai	True							
	RemotingForma	Xml	-						
Tal	Tables								
The collection that holds the tables for this DataSet.									

Click "Add" in order to add table. Set property TableName = Customers.

Tables Collection Editor					8
Members:		Cus	tomers Properties:		
0 Customers		⊿	Data		
		⊳	(ApplicationSetting		
			Columns	(Collection)	
			Constraints	(Collection)	
			DisplayExpression		
			MinimumCapacity	50	
			Namespace		
			Prefix		
			PrimaryKey	DataColumn[]	
			TableName	Customers	
		۵	Design		
			(Name)	dataTable1	
	×		GenerateMember	True	
			Modifiers	Private	
Add		4	Misc		

Select Columns property, click button  $\overline{\square}$  in order to open property editor.

Tables Collection Editor					? ×	
Members:		Cus	tomers Properties:			
0 Customers		۵	Data	*	]	
		⊳	(ApplicationSetting:			
		(	Columns	(Collection)	)	
			Constraints	(Collection)		
			DisplayExpression			
			MinimumCapacity	50		
			Namespace		E	
			Prefix			
			PrimaryKey	DataColumn[]		
			TableName	Customers		
		۵	Design			
			(Name)	dataTable1		
	X		GenerateMember	True		
			Modifiers	Private		
Add		۵	Misc		-	
					Close	

Click "Add" to add a new column. Add three columns. Set ColumnName property to "Country", "City", "CompanyName" correspondingly.

olumns Collection Editor				(B)	
Members:		Cor	npanyName Properti	es:	
0 Country		۵	Data		
1 City		⊳	(ApplicationSetting:		
2 CompanyName			AllowDBNull	True	
			AutoIncrement	False	
			AutoIncrementSeed	0	
			AutoIncrementStep	1	
			Caption	CompanyName	
		(	ColumnName	CompanyName	
			DataType	System.String	
			DateTimeMode	UnspecifiedLocal	
			DefaultValue	<dbnull></dbnull>	
			Expression		
	×		MaxLength	-1	
			Namespace		
Add			Prefix		

Right click on the form and select "View Code" in the context menu to view code.

Form1.cs [Design]*	×		
🖳 Form1			
		View Code	F7
	۵	Lock Controls	NE
		Paste	Ctrl+V
	<b>P</b>	Properties	
		0	

Add the following code to the class constructor in order to fill data source.

```
public Form1()
{
    InitializeComponent();
    DataRow row = dataTable1.NewRow();
    row["CompanyName"] = "Alfreds Futterkiste";
```



```
row["City"] = "London";
row["Country"] = "England";
dataTable1.Rows.Add(row);
row = dataTable1.NewRow();
row["CompanyName"] = "Ana Trujillo Emparedados y helados";
row["City"] = "Paris";
row["Country"] = "France";
dataTable1.Rows.Add(row);
row = dataTable1.NewRow();
row["CompanyName"] = "Ernst Handel";
row["City"] = "Manchester";
row["Country"] = "England";
dataTable1.Rows.Add(row);
row = dataTable1.NewRow();
row["CompanyName"] = "Prod House";
row["City"] = "Manchester";
row["Country"] = "England";
dataTable1.Rows.Add(row);
row = dataTable1.NewRow();
row["CompanyName"] = "Toms Spezialitäten";
row["City"] = "New York";
row["Country"] = "USA";
dataTable1.Rows.Add(row);
```

}

Get back to the application form by clicking the "Form1.cs[Design]" tab.



Click on the "ReportManager" on the Toolbox and place this component onto the form. This component is designed to store collections of report templates and data sources.




The component is available in the lower part of the window.

🖻 dataSet1	reportManager1

#### Step 8

On the property grid, initialize OwnerForm property of the ReportManager by selecting the form it is located on.



#### Step 9

Double click on ReportManager to open ReportManager editor.

Form1.cs Form	n1.cs (Design) ×	E I					
		Report Dat	nager editor			<b>- - X</b>	
			b				
		Add	Delete	Run Designer			
						OK Cancel	

Go to "Data sources" tab, click "Add", set data source name – "Customers", select data source value – "dataSet1.Customers".



Add

Edit

Go to "Reports" tab, click "Add" and select "InlineReportSlot".

Delete

OK

Cancel

Reports       Data sources	ReportManager editor		
	Reports Data sources		
Add Delete Run Designer	Add Delete Run Designer		
FileReportSlot	FileReportSlot	ОК	Cancel
	InlineReportSlot		

Set name of the report in the property ReportName – "Group".

Click "Run Designer" in order to open template editor - Report Designer.



Create new empty template – select File\New from the main menu.



Select "Blank Report" in the Wizards Gallery and click "OK".

•	PERPETUUM www.perpetuumsoft.com software	
	📴 Wizards Gallery	23
	New Saved	
	Blank Report	
	Standard Report	
	Pivot table Report	
	Load from file OK	Cancel

Click the "Properties" tab of the tool window in the right part of the designer.





Pro	perties	<b>→</b> Å ×									
doc	um gt1 Docum	ent 🔹									
	]⊉↓ 🖻										
4	Appearance										
⊳	GraphicsSettings	PerpetuumSoft.Reporting.									
	MasterReport										
	ShowObjectBour	True									
۵	Behaviour										
	DoublePass	False									
	InvalidRenderLer	ThrowException									
۵	Design										
	Name	document 1									
4	Grid Settings										
	GridStep	0,5 cm									
	ShowGrid	True									
	SnapToGrid	True									
۵	Misc										
	DataSources	(Collection)									
	Delete EmptyPage	False									
	Description										
	MetricUnit Centimeter										
	Parameters	(Collection)									
	Title										
4	Render										
	StyleSheet										
4	Script										
	CommonScript										
	CompilerVersion										
	CustomLanguage										
	GenerateScript										
	Imports										
	ScriptLanguage	VisualBasicNET									
Co Det Allo	mmonScript termines code of th ws you to declare	e main script sections. global script variables a									
<b>***</b>	riope	Boom Document									

Set property ScriptLanguage = CSharp.



Press "DataBand" button on the Insert tab in the group Container.



Click on the template area to add DataBand band to the template.

Set data source in the property DataSource = Customers.

17 i 18 i 19	Properties 🔹	ņ	×
	dataBand1 DataBand		•
		_	
	Appearance StyleName		
	ToolTip A Data		
	Data Source Customers		-
(none)			

#### Step 15

Press "GroupBand" button on the Insert tab in the group Container.

File	Home	Insert	Layout Vie	ew						
	PageHeader	Т	TextBox	*	<u> S</u> hape	ChartControl	{ <b>⊟</b> DataBand	SideBySide	Header	📒 SubReport
New	PageOverlay	r T	AdvancedText	Picture	ZipCode	👩 Widget	E GroupBand	🖶 CrossBand	💻 Detail	📥 Content
Page	PageFooter	BTF	RichText	. icture	BarCode	WinFormsControl	{ BandContainer		- Footer	PivotTable
	Page		Text		Illust	tration		Containe	er	

Click on the DataBand area to add GroupBand inside DataBand.

To group list by country set GroupExpression property on the "Properties" tab to "GetData("Customers.Country")".

2   3   4   5   6   7   8   9   10   11   12   13   14   15   16   17   18   19 👰	Properties 🝷 🖣 🗙
	groupBand1 GroupBand
aSource = Customers	2↓   ■ 3   □
aSource = Customers	Appearance SyleName ToolTip      Data GroupExpression      Z3      Data Sources Parameters
	Code Snippets OK Cancel

Report template on this stage should look as follows:

dataBand1:DataBand DataSource = Customers													
groupBand1 GroupBand_Group = GetData/"Customers County")													
2)													
end of groupBand1													
end of dataBand1													

#### **Step 16**

To display header of every group create Header band - press "Header" button on the Insert tab in the group Container.

File	Home	Insert	Layout Vie	ew						
	PageHead	er T	TextBox	*	🔀 Shape	ChartControl	📒 DataBand	SideBySide	Header	SubReport
New	PageOverl	ay T	AdvancedText	Picture	ZipCode	🧟 Widget	E GroupBand	🖶 CrossBand	💻 Detail 😽	📑 Content
Page [	PageFoote	r BTF	RichText	ricture	BarCode	WinFormsControl	{ BandContainer		Footer	PivotTable
	Page		Text		Illust	ration		Containe	er	

Click on the GroupBand area to add Header band inside GroupBand.

#### **Step 17**

Press button "TextBox" on the Insert tab in the group Text.



Click on the Header area to add TextBox element inside the Header.

#### Set Value property to "Group".

Na	Name textBox1 Binding Val									lue					•	fx	Gr	oup	)														_		_		_		_		
		1 i		1	1	Т	2	1	3	I.	4	1	5	T.	6	T.	7	T.	8	1	9	I.	10	T	11	- I	12	Т	13	Т	14	Т	15	Т	16	Т	17	1	18	i.	19
_	Г																																								
	da	taBan	d1:D	ataB	lanc	l Da	ataS	our	ce =	Cu	stor	ners																													
	gro	oupBa	nd1:	Grou	ıрВ	and	Gro	oup	= G	etD	ata(	'Cus	stom	iers	Cou	intry	")																								
	header1:Header																																								
1	Г				-	Ĭ.,		Ĭ																																	
-				0 <	9	rou	p>	9																																	
2	en	dofa	roup	Ban	d1	0	-	•			-	-	-	-			-	-	-		-	-	-		-	-		-			-	-			-	_		_	_	-	
-		a o f a	at a D	and	1	_	_		_	_	_	_	_	_	_	_	-	_	_		_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_		_
2	en	a or a	alaD	anu	I																																				

### **Step 18**

Press "GroupBand" button on the Insert tab in the group Container.

File	Home	Insert	Layout Vie	w	_				_	_
New	PageHeade PageOverla	r T y T	TextBox AdvancedText	Picture	Shape	ChartControl	{≣ DataBand {☐ GroupBand	E SideBySide	Header	SubReport
Page 🚦	PageFooter	RTF	RichText		BarCode	WinFormsControl	{     BandContainer		- Footer	PivotTable
	Page		Text		Illust	ration		Containe	er	

Click on the GroupBand area to add the second GroupBand inside it.

To group list by city set GroupExpression property on the "Properties" tab to "GetData("Customers.City")".

dataBand1:DataBand DataSource = Customers	
groupBand1:GroupBand Group = GetData("Customers.Country")	
header1:Header	
<group></group>	
groupBand2:GroupBand Group = GetData("Customers.City")	
end of groupBand2	
end of groupBand1	
end of dataBand1	

## Step 19

To display group header add Header band to the groupBand2, add TextBox, set property Value = Group.

#### Step 20

Press "Detail" button on the Insert tab in the group Container.

File	Home	Insert	Layout Vie	ew						
	PageHeade	er T	TextBox	*	🔀 Shape	ChartControl	📒 DataBand	SideBySide	Header	📕 SubReport
New	🚡 PageOverla	ay 🔳	AdvancedText	Picture	ZipCode	🧟 Widget	🔚 GroupBand	🖶 CrossBand	😑 Detail	🗲 Content
Page	📔 PageFoote	r RTF	RichText	. icture	BarCode	WinFormsControl	{ BandContainer		Footer	PivotTable
	Page		Text		Illust	ration		Containe	er	



Click on the groupBand2 area to add Detail band inside groupBand2.

		 	 	1 1 1
dataBand1:DataBand_DataSource = Custome	ers		 	
groupBand1:GroupBand Group = GetData("C	ustomers.Country")			
header1:Header				
<group></group>				
groupBand2:GroupBand Group = GetData("C	ustomers.City")			
header2:Header				
<grou< td=""><td>p&gt;</td><td></td><td></td><td></td></grou<>	p>			
detail1:Detail				
end of groupBand2				
end of groupBand1				
end of dataBand1				

# Step 21

Go to "DataSources" tab.





Drag and drop "CompanyName" field from the dataBand1 tree to the detail1 band. As a result TextBox is created. Value property is automatically filled with script loading data from the data source.

Change size of the elements and locate them in the way shown in the picture below.

8	PERPETUUM software	www.perpetuumsoft.com
	dataBand1:DataBand I	DataSource = Customers
	groupBand1:GroupBan	d Group = GetData("Customers.Country")
	header1:Header	
	<(	Group>
	groupBand2:GroupBan	d Group = GetData("Customers.City")
	header2:Header	
		<group></group>
	detail1:Detail	
		<databand1["companyname"]></databand1["companyname"]>
	end of groupBand2	
	end of groupBand1	
	end of dataBand1	

In order to view template structure, go to "DocumentTree" tab.



PERPETUUM www.perpetuumsoft.com



#### Step 22

Save template, close Report Designer.

#### Step 23

Add code to display report to the class constructor. Write RenderComplited event handler of the InlineReportSlot object.

```
public Form1()
{
    InitializeComponent();
    DataRow row = dataTable1.NewRow();
```



row["CompanyName"] = "Alfreds Futterkiste"; row["City"] = "London"; row["Country"] = "England"; dataTable1.Rows.Add(row); row = dataTable1.NewRow(); row["CompanyName"] = "Ana Trujillo Emparedados y helados"; row["City"] = "Paris"; row["Country"] = "France"; dataTable1.Rows.Add(row); row = dataTable1.NewRow(); row["CompanyName"] = "Ernst Handel"; row["City"] = "Manchester"; row["Country"] = "England"; dataTable1.Rows.Add(row); row = dataTable1.NewRow(); row["CompanyName"] = "Prod House"; row["City"] = "Manchester"; row["Country"] = "England"; dataTable1.Rows.Add(row); row = dataTable1.NewRow(); row["CompanyName"] = "Toms Spezialitäten"; row["City"] = "New York"; row["Country"] = "USA"; dataTable1.Rows.Add(row); inlineReportSlot1.RenderCompleted += new EventHandler(reportSlot RenderCompleted); } private void reportSlot RenderCompleted(object sender, EventArgs e) { using (PerpetuumSoft.Reporting.View.PreviewForm previewForm = new PerpetuumSoft.Reporting.View.PreviewForm(inlineReportSlot1)) { previewForm.WindowState = FormWindowState.Maximized; previewForm.ShowDialog(this); } }

#### Step 24

Add two buttons onto the form (drag and drop "Button" element from the Toolbox onto the form).



Select Button element on the form, edit Text property on the property grid. Set Text = Template for one button and Text = Report for the other one.

)	PE	ERF	PETUUM www.software	w.perpetuumsoft.co	m					
		Dee		- 1		Deer			- 1	V
		Prop	perties	* 1		Prop	berties		Ť	^
		but	ton1 System.Wi	ndows.Forms.Butt	tc 👻	but	ton2 System.Wi	ndows.Form	is.Butto	•
		•	<b>≵↓ 🔲 🖋</b>				<b>≜</b> ↓ 🔲 🥖			
			ImageIndex	(none)	~		ImageIndex	(none)	)	*
			ImageKey	(none)			ImageKey	(none)	)	
			ImageList	(none)			ImageList	(none)		
		_	RightToLeft	No			RightToLeft	No		
		C	Text	Template 📋 🔻			Text	Report		)
			TextAlign	MiddleCenter			TextAlign	MiddleCen	ter	
			TextImageRelati	Overlay			TextImageRelati	Overlay		
			UseMnemonic	True			UseMnemonic	True		
			UseVisualStyleB	True			UseVisualStyleB	True		
			UseWaitCursor	False			UseWaitCursor	False		

Create Click event handlers for the buttons – double click on the Button element on the form. Add code launching report generation to the event handler. For example, use the following code:

```
private void button1_Click(object sender, EventArgs e)
{
    inlineReportSlot1.DesignTemplate();
}
private void button2_Click(object sender, EventArgs e)
{
    inlineReportSlot1.Prepare();
}
```

#### **Step 25**

Click "Start Debugging" on the Visual Studio toolbar in order to start application.



Click the "Report" button in the opened application window.

🖳 Form1	
Template	Report

Generated report is viewed in the Report Viewer.



🤣 document1 - Preview report		
File View Navigate Document Help	፵,戊国岛,158%	
		-
England		
	London	
	Alfreds Futterkiste	
	Manchester	
	Ernst Handel	
	Prod House	
_		_
France		
	Paris	
	Ana Trujillo Emparedados y hela	dos
USA		
	New York	
	Toms Snezialitäten	
<		•

To edit report template, close Report Viewer and click "Template" on the application form.

- Form1	
Template	Report

Similar sample in the Samples Center is Reports\Grouping\Nested Groups.



# Joint Use of Grouping, Sorting, Filtering and Totals

Template of a report containing list of customers grouped by city; for every customer – a list of orders sorted by date. The report will contain orders made after January 1, 2010. Aggregation function will calculate total orders price for every employee.

## Step 1

Create new project in Microsoft Visual Studio. Select New\Project from the main menu.



Select Windows Forms Application, set project name – "Report", set directory to save the project to.



Change the project properties. Select the Project\Report Properties... item in the main menu.



Select item Target framework\.NET Framework4 from the tab Application.

•	PE	RPETUUM www software	v.perpetuumsoft.com
		Application	Configuration: N/A    Platfo
		Build Build Events	Assembly name: SimpleReport
		Debug	Target framework:
		Services	.NET Framework 4 Client Profile   .NET Framework 2.0 .NET Framework 3.0
		Settings	.NET Framework 3.5 .NET Framework 3.5 Client Profile .NET Framework 4
		Reference Paths	NET Framework 4 Client Profile

In the opened window press the "Yes" button.

Target Fran	nework Change
2	Changing the Target Framework requires that the current project be closed and then reopened. Any unsaved changes within the project will be automatically saved. Changing Target Framework may require manual modification of project files in order to build. Are you sure you want to change the Target Framework for this project?
	Yes No Help

## Step 3

Open main form of the application by double click on the "Form1.cs" in the Solution Explorer.



Click "DataSet" element on the Toolbox and place DataSet onto the form.



Select "Untyped dataset", click "OK"

Add Dataset	? ×
Choose a typed or untyped dataset to add to the designer.	
Typed dataset	
Name:	-
Creates an instance of a typed dataset class already in your project. Choose this option to with a dataset that has a built-in schema. See Help for details on generating typed dataset	o work ats.
Output dataset	
Creates an instance of an untyped dataset class of type System.Data.DataSet. Choose this when you want a dataset with no schema.	s option
OK Car	ncel

The component is available in the lower part of the window.



## Step 4

Select dataSet1 in the form editor. On the property grid, select Tables property, click button  $\overline{\mbox{lm}}$  in order to open property editor.



Click "Add" in order to add table. Set property TableName = Customers.

Tables Collection Editor					2	x
Members:		Cus	tomers Properties:			
0 Customers	[	۵	Data			*
		$\triangleright$	(ApplicationSetting:			
			Columns	(Collection)		
			Constraints	(Collection)		
			DisplayExpression			
			MinimumCapacity	50		
			Namespace			Ξ
			Prefix			
			PrimaryKey	DataColumn[]		
			TableName Customers			
		۵	Design			
			(Name) dataTable1			
	X		GenerateMember	True		
			Modifiers	Private		
Add		۵	Misc			Ŧ
					Close	

## Step 5

Select Columns property, click button  $\square$  in order to open property editor.

Tables Collection Editor				? <u> </u>
Members:	Cu	stomers Properties:		
0 Customers	4	4 Data		
		(ApplicationSetting		
		Columns	(Collection)	
		Constraints	(Collection)	
		DisplayExpression		
		MinimumCapacity	50	
		Namespace		=
		Prefix		
		PrimaryKey	DataColumn[]	
		TableName	Customers	
	4	Design		
		(Name)	dataTable1	
×		GenerateMember	True	
		Modifiers	Private	
Add	4	Misc		

Click "Add" to add a new column. Add three columns. Set ColumnName property to "CompanyName", "City", "CustNo" correspondingly. For the "CustNo" column, set the following properties DataType = System.Int32, AllowDBNull = False.

Columns Collection Editor	? ×	
Members:	CustNo Properties:	
0 CompanyName	⊿ Data ▲	
1 City	ApplicationSetting:	
2 CustNo	AllowDBNull False	
	AutoIncrement False	
	AutoIncrementSeed 0	
	AutoIncrementStep 1	
	Caption CustNo	
	ColumnName CustNo	
	DataType System.Int32 -	
	DateTimeMode UnspecifiedLocal —	
	DefaultValue <dbnull></dbnull>	
	Expression	
X	MaxLength -1	
	Namespace	
Add	Prefix	
	Close	4



In the Tables Collection Editor, click "Add" in order to add one more table. Set TableName to "Orders".

Tables Collection Editor				
Members:	C	Orders Properties:		
0 Customers		⊿ Data		*
1 Orders		ApplicationSetting		
		Columns	(Collection)	
		Constraints	(Collection)	
		DisplayExpression		
		MinimumCapacity	50	
		Namespace		=
		Prefix		
		PrimaryKey	DataColumn[]	
		TableName	Orders	
		⊿ Design		
		(Name)	dataTable2	
	X	GenerateMember	True	
		Modifiers	Private	
Add		⊿ Misc		-
				Close

Open Columns property editor. Add four columns, set ColumnName property to "OrderID", "OrderDate", "and OrderSum ", " CustNo". For the "CustNo" column, set the following properties DataType = System.Int32, AllowDBNull = False. For the "OrderDate" column, set property DataType = System.DateTime.

Columns Collection Editor					2
Members:		Cus	tNo Properties:		
0 OrderID		۵	Data		
1 OrderDate		⊳	(ApplicationSetting:		
2 OrderSum			AllowDBNull	False	
3 CustNo			AutoIncrement	False	
			AutoIncrementSeed	0	
			AutoIncrementStep	1	
			Caption	CustNo	
		(	ColumnName	CustNo	
			DataType	System.Int32	] -
			DateTimeMode	UnspecifiedLocal	
			DefaultValue	<dbnull></dbnull>	
			Expression		
×			MaxLength	-1	
			Namespace		
Add			Prefix		

Select the Relations property in the property grid. Click the  $\overline{\Box}$  button in order to open the property editor.

Properties 🔹 🕂 🗙				
dataSet1 System.Data.Da	taSet 👻			
8 2↓ 🔳 🛩 🖻				
⊿ Data				
<ul> <li>(ApplicationSettings)</li> </ul>				
CaseSensitive	False			
DataSetName	NewDataSet _			
Locale	ru-RU =			
Namespace				
Prefix				
Relations	(Collection)			
Tables	(Collection)			
Design				
(Name)	dataSet1 👻			

Press the "Add" button in order to add the binding between the tables.

Relations Collection Editor		? <mark>×</mark>
Members:	Properties:	
Add Edit		
		Close

Set the Name = "CustomersOrders" properties in the Relation opened window. Select the Key Columns and Foreign Key Columns = "CustNo" in Columns. Click "Ok".

Relation					? ×
Name: CustomersOrders Specify the keys that	relate tables in you	r datas	set.		
Parent table:			Child tabl	e:	
Customers		-	Orders		<b></b>
Columns:					
Key Columns		Forei	ign Key Col	umns	
CustNo		Cust	No		•
Update rule:	Cascade				•
Delete rule:	Cascade				<b></b>
Accept/Reject rule:	None				•
				ОК	Cancel

Right click on the form and select "View Code" in the context menu to view code.



Add the following code to the class constructor in order to fill data source.

```
public Form1()
 {
     InitializeComponent();
     DataRow row = dataTable1.NewRow();
     row["CustNo"] = 1;
     row["CompanyName"] = "Bon App'";
     row["City"] = "Paris";
     dataTable1.Rows.Add(row);
     row = dataTable1.NewRow();
     row["CustNo"] = 2;
     row["CompanyName"] = "Chop-suey Chinese";
     row["City"] = "London";
     dataTable1.Rows.Add(row);
     row = dataTable1.NewRow();
     row["CustNo"] = 3;
     row["CompanyName"] = "Maison Dewey";
     row["City"] = "Paris";
     dataTable1.Rows.Add(row);
     row = dataTable2.NewRow();
     row["CustNo"] = 1;
     row["OrderID"] = "00001";
     row["OrderDate"] = "2010,03,21";
     row["OrderSum"] = "50.00";
     dataTable2.Rows.Add(row);
     row = dataTable2.NewRow();
     row["CustNo"] = 1;
     row["OrderID"] = "00002";
     row["OrderDate"] = "2010,02,15";
     row["OrderSum"] = "14.50";
     dataTable2.Rows.Add(row);
     row = dataTable2.NewRow();
     row["CustNo"] = 2;
     row["OrderID"] = "00010";
     row["OrderDate"] = "2010,04,03";
     row["OrderSum"] = "134.00";
     dataTable2.Rows.Add(row);
     row = dataTable2.NewRow();
     row["CustNo"] = 2;
     row["OrderID"] = "00011";
     row["OrderDate"] = "2010,01,15";
     row["OrderSum"] = "45.45";
     dataTable2.Rows.Add(row);
     row = dataTable2.NewRow();
     row["CustNo"] = 2;
     row["OrderID"] = "00013";
     row["OrderDate"] = "2010,02,01";
     row["OrderSum"] = "500.00";
     dataTable2.Rows.Add(row);
     row = dataTable2.NewRow();
     row["CustNo"] = 2;
     row["OrderID"] = "00101";
     row["OrderDate"] = "2009,12,30";
     row["OrderSum"] = "6.03";
     dataTable2.Rows.Add(row);
     row = dataTable2.NewRow();
     row["CustNo"] = 3;
     row["OrderID"] = "00666";
     row["OrderDate"] = "2010,06,06";
     row["OrderSum"] = "66.66";
     dataTable2.Rows.Add(row);
```

}



Get back to the application form by clicking the "Form1.cs[Design]" tab.



Click on the "ReportManager" on the Toolbox and place this component onto the form. This component is designed to store collections of report templates and data sources.



The component is available in the lower part of the window.

in ataSet1	reportManager1

#### **Step 10**

On the property grid, initialize OwnerForm property of the ReportManager by selecting the form it is located on.



Double click on ReportManager to open ReportManager editor.

Form1.cs Form1.cs [Design] ×		Ţ
Form1		
	aReportManager editor	
	Reports Data sources	
	Add Delete Run Designer	
		OK Cancel
and data Set1		

Go to "Data sources" tab, click "Add", set data source name – "CustomersOrders", select data source value – "dataSet1".



Go to "Reports" tab, click "Add" and select "InlineReportSlot".

ReportManager editor	
Reports Data sources	
InlineReportSlot OK	Cancel
UriReportSlot	

Set name of the report in the property ReportName – "Report".

Click "Run Designer" in order to open template editor - Report Designer.



Create new empty template – select File\New from the main menu.



Select "Blank Report" in the Wizards Gallery and click "OK".

ΟK

Cancel

6	PERPETUUM www.perpetuumsoft.com	
	🖳 Wizards Gallery	23
	New Saved	
	Blank Report	
	Standard Report	
	Pivot table Report	
	Load from file OK	Cancel

Click the "Properties" tab of the tool window in the right part of the designer.





Pro	Properties 👻 🕈 🗙				
docum gt1 Document 🔹					
۵	Appearance				
⊳	GraphicsSettings	PerpetuumSoft.Reporting.			
	MasterReport				
	ShowObjectBour	True			
۵	Behaviour				
	DoublePass	False			
	InvalidRenderLer	ThrowException			
۵	Design				
	Name	document 1			
4	Grid Settings				
	GridStep	0,5 cm			
	ShowGrid	True			
	SnapToGrid	True			
۵	Misc				
	DataSources	(Collection)			
	DeleteEmptyPage	False			
	Description				
	MetricUnit	Centimeter			
	Parameters	(Collection)			
	Title				
۵	Render				
	StyleSheet				
۵	Script				
	CommonScript				
	CompilerVersion				
	CustomLanguage				
	GenerateScript				
	Imports				
	ScriptLanguage	VisualBasicNET			
CommonScript					
Allo	ermines code of the ws you to declare	global script variables a			
2	Prope 🔚 Dat	aSo 📄 Document			

Set property ScriptLanguage = CSharp.



Press "DataBand" button on the Insert tab in the group Container.



Click on the template area to add DataBand band to the template.

Set data source in the property DataSource = CustomersOrders.Customers.

Pro	perties	<b>-</b> ₽×							
dataBand1 DataBand									
2↓ 000									
۵	⊿ Appearance								
	StyleName								
	ToolTip								
4 Data									
C	DataSource	CustomersOrders.Cus							
	FilterExpression								
	InstanceCount	0							
	Sort	(Collection)							
	Tag								
	Totals	(Collection)							
4	Design								

## Step 17

Press "GroupBand" button on the Insert tab in the group Container.

File	Home Ins	ert Layout Vi	ew						
New Page	PageHeader PageOverlay PageFooter	T TextBox T AdvancedText RT RichText	Picture	Shape ZipCode BarCode	ChartControl ChartControl Widget WinFormsControl	E DataBand	E SideBySide	Header Detail	SubReport Content PivotTable
Page Text		Illustration		Container					

Click on the DataBand area to add GroupBand inside DataBand.

Select GroupExpression property on the "Properties" tab. Click button  $\Box$  to open property editor – Script Editor.


Set condition to group records by city "GetData("CustomersOrders.Customers.City")".

🕎 Script Editor			23
1  ☐ GetData("CustomersOrders.Customers.City")	Script Editor		
	Bands	Data Sources	Parameters
	CustomersOrders Customers CompanyNa CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO CustomersO Cu	me rders	
		Code Snippets	OK Cancel
dataBand1:DataBand DataSource = CustomersOrders.Customers			
groupBand1:GroupBand Group = GetData("CustomersOrders.Customers.City")			
end of groupBand1			
end of dataBand1			

### **Step 18**

To display header of every page create Header band – press "Header" button on the Insert tab in the group Container.

File	Home	Insert	Layout Vie	w						
	PageHeader	T	TextBox	*	<u> S</u> hape	ChartControl	📒 DataBand	SideBySide	Header	📒 SubReport
New 🛛	PageOverlay	r T	AdvancedText	Picture	✓ZipCode	🥵 Widget	GroupBand	🖶 CrossBand	💻 Detail 😽	🗲 Content
Page 🛓	PageFooter	RTF	RichText	i ictoric	BarCode	WinFormsControl	{ BandContainer		- Footer	PivotTable
	Page		Text		Illust	ration		Containe	r	

Click on the GroupBand area to add Header band inside GroupBand.

### **Step 19**

Press button "TextBox" on the Insert tab in the group Text.

Click on the Header area to add TextBox element inside Header.

### Set Value property to "Group".

ie	text	Box1					Bind	ding	Val	ue					•	fx	Gr	oup	)													
													_																			
	1	1	I	1	Т	2	T	3	Т	4	Т	5	I.	6	Т	7	T	8	I	9	T	10	T	11	1	12	1	13	I.	14	I.	15
d	ataB	and1:	Datal	Band	l Da	itaSi	ourc	e = 1	Cust	tome	ersO	Irder	s.Ci	usto	mei	s																
g	roupl	Band	1:Gro	upBa	and	Grou	up =	Get	Data	a("C	usto	mer	sOr	ders	.Cu	stor	ners	.City	(")													
h	eade	er1:He	ader																													
				<g< td=""><td>rou</td><td>ıp&gt;</td><td></td><td>0</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></g<>	rou	ıp>		0																								
⊨		_	<u> </u>		0		_	<u> </u>		_		_		_	_		_	_	_		_	_	_		_		_				-	_
e	nd of	f grou	pBan	d1																												
e	nd of	f data	Band	1																												
e e	nd of nd of	f grou f data	pBan Band	d1 1	-0-			•	_		_		_			-				-			_		_		-		_	_		

## Step 20

Press "Detail" button on the Insert tab in the group Container.

File	Home	Insert	Layout Vie	ew	_				_	_
New Page	PageHeade PageOverla	er T y T	TextBox AdvancedText RichText	Picture	Shape	ChartControl	{ DataBand GroupBand	SideBySide	Header	SubReport
rage 🛓	Page Page	nır	Text		Illust	ration		Containe	er	

Click on the GroupBand area to add Detail band inside GroupBand.

# Step 21

Go to "DataSources" tab.





Drag and drop "CompanyName" field from the dataBand1 tree to the detail1 band. As a result TextBoxes are created. Value property is automatically filled with script loading data from the data source.

dataBand1:DataBand DataS	urce = CustomersOrders.Customers
groupBand1:GroupBand Gro	up = GetData("CustomersOrders.Customers.City")
header1:Header	
<group< th=""><th>&gt;</th></group<>	>
detail1:Detail	
	<databand1< td=""></databand1<>
	["CompanyName"]>
end of groupBand1	
end of dataBand1	

Add DataBand inside GroupBand. Set property DataSource = CustomersOrders.Customers.CustomresOrders

dataBand1:DataBand DataSource = CustomersOrders.Customers
arousBandi GroupBand _ Croup = CatDate("CustomeroOrders Customero Citu")
groupbandi Groupbandi Group – Gerbata (Customers Customers, Customers, City)
header1:Header
<pre><group></group></pre>
detail1:Detail
<pre><databand1< pre=""></databand1<></pre>
["CompanyName"]>
dataBand2:DataBand DataSource = CustomersOrders.Customers.CustomersOrders
fend of dataBand2
end of groupBand1
end of dataBand1

# Step 23

Select dataBand2, select Sort property, click button  $\Box$  to open Collection Editor – Sort property editor.

Pro	perties	<b>-</b> † X				
dat	aBand2 DataBand	•				
2 4 🔲 B						
⊿	Appearance					
	StyleName					
	ToolTip					
⊿	Data					
	DataSource	CustomersOrders.Orders				
	FilterExpression					
	InstanceCount	0				
(	Sort	(Collection)				
	kjag Totolo	(Collection)				
	Totals	(Collection)				

In the Collections Editor, click + button. Set the following properties: Expression = dataBand2["OrderDate"], Order = Descending to soft orders by date in descending order.



Select dataBand2, select Totals property, click 🗔 to open Collections Editor – Totals property editor.

Pro	perties	<del>-</del> ₽ X						
dat	dataBand2 DataBand							
⊿	Appearance							
	StyleName							
	ToolTip							
⊿	Data							
	DataSource	CustomersOrders.Orders						
	FilterExpression							
	InstanceCount	0						
	Sort	(Collection)						
	Tag							
(	Totals	(Collection)						
۵	Design							

In the Collections Editor click + button. Set the following properties: AggregateFunction = Sum, Expression = dataBand2["OrderSum"], Name = Sum.



Select dataBand2, select FilterExpression property, click button 🗔 to open Script Editor – FilterExpression property editor.

Pro	perties	<b>-</b> ₽ X					
dat	dataBand DataBand						
	) <b>≵↓   🛅 ₽</b> ₴   🗉						
۵	Appearance						
	StyleName						
	ToolTip						
۵	Data						
	DataSource	CustomersOrders Orders					
(	FilterExpression						
	InstanceCount	0					
	Sort	(Collection)					
	Tag						
	Totals	(Collection)					
۵	Design						

Enter the following code:

"((DateTime)dataBand2["OrderDate"]) > new DateTime(2010,01,01)"

### Step 26

Add Detail band to the dataBand2.

### **Step 27**

Go to DataSources tab and drag and drop the following fields: "OrderID", "OrderDate", and "OrderSum" from the dataBand2 tree to the detail2 band.



Select TextBox element with the Value = dataBand2["OrderDate"]. Select TextFormat property, click button in to open form of selecting text format.

ro	perties	<b>→</b> ┦	
ext	Box4 TextBox		
•	]⊉↓   🛅 ▫₋		
۵	Appearance		
	Angle	0	
	Border		
	ClipText	False	
	Fill	[None]	
$\triangleright$	Font	Arial; 12pt	
$\triangleright$	Margins	0; 0; 0; 0 cm	
	RightToLeft	False	
	StringTrimming	Character	
	StyleName		
	Text		
	TextAlign	MiddleCenter	
	TextFill	[None]	
0	TextFormat		
	ToolTip		
۵	Data		
	Tag		
۵	Design		
	Name	textBox4	
۵	Layout	10 5 0	
⊳	Location	12,5; 0 cm	_
⊳	Size	4;1 cm	
۵	Navigation		
	Bookmark		_
	Hyperlink		
۵	Kender	<b>F</b> -l	
	CanGrow	False	_
	Can Shink	False	_
	Grow To Bottom	Taise	_
	Cogint	mue	
2	Generate Seriet		
Te Def	xt Format termines the text fo	mat for the text control.	
101	Proper 🔚 Da	taSour 🞏 Documen	t1

Select "Date" in the "Formats" list; item "dd/MM/yy" in the "Properties" list.



🕎 Format Editor	Σ
Format Editor  Formats  General  Number  Currency  Date  Time  Percentage	Sample 05.11.02 d f
Custom	F dd/MM/yy dd/MM/yyyy
	OK Cancel

In the same way, the select TextBox element with the Value = dataBand2["OrderSum"]. Select the TextFormat property, click the  $\Box$  button to open form of the selected text format.

Select "Currency" in the "Formats" list. Uncheck "Use local settings" in the "Properties" tab. Set the other properties as you need.

🕎 Format Editor			Σ	×
Formats General Number Currency Date Time Percentage Custom	Sample \$123 456.35 Properties Use local settings Decimal places Decimal separator Currency symbol Positive pattern Negative pattern	2 Sn (\$n)		
		(	OK Cancel	



To display footer containing summarized value of the OrderSum field create Footer band – press "Footer" button on the Insert tab in the group Container.

File	Home	Insert	Layout Vie	ew						
	PageHeade	er T	TextBox	*	<u>र</u> Shape	ChartControl	📒 DataBand	SideBySide	Header	📒 SubReport
New	PageOverla	ay T	AdvancedText	Picture	ZipCode	🛃 Widget	🔚 GroupBand	🖶 CrossBand	💻 Detail	📑 Content
Page [	PageFoote	r BTF	RichText	T ICCUTC	BarCode	WinFormsControl	{🔳 BandContainer		Footer	∑ PivotTable
	Page		Text		Illust	ration		Containe	er b3	

Click on the dataBand2 area to add Footer band inside dataBand2.

### **Step 31**

Add the TextBox element inside Footer band, set the Value = GetTotal("Sum") property. Set the element's properties as you did it in step 29.

e textBox6	Binding Value		<ul> <li><i>f</i>_ℓ Get</li> </ul>	Total("	Sum")														
1 1 1	1 2 1 3 1	4 1 5 1 6	1 7 1	8 I	9 i	10	i 11	1	12 i	13	T	14 i	15	T	16 i	17	T	18 i	19
dataBand1:DataBand	.ataBand1:DataBand DataSource = CustomersUrders.Customers																		
groupBand1:GroupBand Group = GetData("CustomersOrders.Customers.City")																			
header1:Header																			
<gr< th=""><th>roup&gt;</th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th></gr<>	roup>																		
detail1:Detail																			
		<datae ["Company"]</datae 	Band1 yName"]>	>															
dataBand2:DataBand	DataSource = Cust	omersOrders.Cus	stomers.Cust	omersOrc	lers													1	
detail2:Detail					_														
					<da nd2</da 	ataE 2["C	3a Ird	["	<da 'Ord</da 	taBa erD	and ate	2 "]>		<da 2["(</da 	itaB Drde	and erSu			
footer1:Footer													-				_		_
end of dataBand2													•	<g ("٤</g 	etTo Sum'	otal ')>	•		
end of grounBand1	and of databand2																		
end of dataBand1						N				_									_

### **Step 32**

Save template, close Report Designer.

### Step 33

Add code to display report to the class constructor. Write RenderComplited event handler of the InlineReportSlot object.

```
public Form1()
{
    InitializeComponent();
    DataRow row = dataTable1.NewRow();
    row["CustNo"] = 1;
    row["CompanyName"] = "Bon App'";
    row["City"] = "Paris";
    dataTable1.Rows.Add(row);
    row = dataTable1.NewRow();
    row["CustNo"] = 2;
    row["CompanyName"] = "Chop-suey Chinese";
    row["City"] = "London";
    dataTable1.Rows.Add(row);
    row = dataTable1.NewRow();
    row["CustNo"] = 3;
    row["CompanyName"] = "Maison Dewey";
```





```
row["City"] = "Paris";
            dataTable1.Rows.Add(row);
            row = dataTable2.NewRow();
            row["CustNo"] = 1;
            row["OrderID"] = "00001";
            row["OrderDate"] = "2010,03,21";
            row["OrderSum"] = "50.00";
            dataTable2.Rows.Add(row);
            row = dataTable2.NewRow();
            row["CustNo"] = 1;
            row["OrderID"] = "00002";
            row["OrderDate"] = "2010,02,15";
            row["OrderSum"] = "14.50";
            dataTable2.Rows.Add(row);
            row = dataTable2.NewRow();
            row["CustNo"] = 2;
            row["OrderID"] = "00010";
            row["OrderDate"] = "2010,04,03";
            row["OrderSum"] = "134.00";
            dataTable2.Rows.Add(row);
            row = dataTable2.NewRow();
            row["CustNo"] = 2;
            row["OrderID"] = "00011";
            row["OrderDate"] = "2010,01,15";
            row["OrderSum"] = "45.45";
            dataTable2.Rows.Add(row);
            row = dataTable2.NewRow();
            row["CustNo"] = 2;
            row["OrderID"] = "00013";
            row["OrderDate"] = "2010,02,01";
            row["OrderSum"] = "500.00";
            dataTable2.Rows.Add(row);
            row = dataTable2.NewRow();
            row["CustNo"] = 2;
            row["OrderID"] = "00101";
            row["OrderDate"] = "2009,12,30";
            row["OrderSum"] = "6.03";
            dataTable2.Rows.Add(row);
            row = dataTable2.NewRow();
            row["CustNo"] = 3;
            row["OrderID"] = "00666";
            row["OrderDate"] = "2010,06,06";
            row["OrderSum"] = "66.66";
            dataTable2.Rows.Add(row);
            inlineReportSlot1.RenderCompleted += new
EventHandler(reportSlot RenderCompleted);
        }
        private void reportSlot RenderCompleted(object sender, EventArgs e)
        {
            using (PerpetuumSoft.Reporting.View.PreviewForm previewForm = new
PerpetuumSoft.Reporting.View.PreviewForm(inlineReportSlot1))
            {
                previewForm.WindowState = FormWindowState.Maximized;
                previewForm.ShowDialog(this);
            }
        }
```

Add two buttons onto the form (drag and drop "Button" element from the Toolbox onto the form).



Select Button element on the form, edit Text property on the property grid. Set Text = Template for one button and Text = Report for the other one.

Pro	perties	<b>▲</b> Å	×	Pro	perties		ч×		
but	t <b>ton1</b> System.Wi	ndows.Forms.Butto	-	button2 System.Windows.Forms.Buttc					
•	≵↓ 🔲 🖋				<b>≵</b> ↓ 🔲 🥖				
	ImageIndex	(none)	*		ImageIndex	(none)	*		
	ImageKey	(none)			ImageKey	(none)			
	ImageList	(none)			ImageList	(none)			
	RightToLeft	No			RightToLeft	No			
C	Text	Template 📋 👻	)	0	Text	Report ]	-)		
	TextAlign	MiddleCenter			TextAlign	MiddleCenter			
	TextImageRelati	Overlay			TextImageRelati	Overlay			
	UseMnemonic	True			UseMnemonic	True			
	UseVisualStyleB	True			UseVisualStyleB	True			
	${\sf UseWaitCursor}$	False			UseWaitCursor	False			

Create Click event handlers for the buttons – double click on the Button element on the form. Add code launching report generation to the event handler. For example, use the following code:

```
private void button1_Click(object sender, EventArgs e)
{
    inlineReportSlot1.DesignTemplate();
}
private void button2_Click(object sender, EventArgs e)
{
    inlineReportSlot1.Prepare();
}
```

### **Step 35**

Click "Start Debugging" on the Visual Studio toolbar in order to start application.

File	Edit	View	Refactor	Project	Build	Debug	Team	Data	Tools	Test	Window	Help	
16	-	- 🞽	🖬 🥥   J	6 🗈 🛍	, <b>  -</b> ) -	• @ • <	<b>-</b> 🕫		Debug		- 🛛 🚈		- 🖂 🛃 😒 🏷 🛃 💶 - 🖕
1	- 🔁 👌	L_ A≳	17   🛊 🕯		2   🗆		Ş2 C3 4	2.3	-, ,				

Click the "Report" button in the opened application window.



Generated report is viewed in the Report Viewer.

🕼 document1 - Preview report	suggest have been been	And in case of the local division of the		and the second	
File View Navigate Document Help					
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Paris					
	Bon App'				
		00001	21.03.10	\$50.00	E
		00002	15.02.10	\$14.50	
				\$64.50	
	Maison Dewey				
		00666	06.06.10	\$66.66	
				\$66.66	
London					
	Chop-suey Chinese				
		00010	03.04.10	\$134.00	
		00013	01.02.10	\$500.00	
		00011	15.01.10	\$45.45	
<				\$679.45	-

To edit report template, close Report Viewer and click "Template" on the application form.





# **Managing Size**

Template of a report containing information on employees – name, phone, note. Size of the TextBox containing a note is changed depending on data.

### Step 1

Create new project in Microsoft Visual Studio. Select New\Project from the main menu.



Select Windows Forms Application, set project name – "Size_Position", set directory to save the project to.

New Project					? <mark>×</mark>
Recent Templates		.NET Fra	amework 4 🔹 Sort by: Default	▼ III (III)	Search Installed Templates
Installed Templates <ul> <li>Visual C#</li> </ul>		<b>_</b> C [#]	Windows Forms Application	Visual C#	Type: Visual C# A project for creating an application with a
Windows Web	Windows Web		WPF Application	Visual C#	Windows Forms user interface
▷ Office Cloud			Console Application	Visual C#	
<ul> <li>Keporting</li> <li>SharePoint</li> <li>Silverlight</li> </ul>		<b>c</b> ≇	Class Library	Visual C#	
Test WCF		°°⊂‡	WPF Browser Application	Visual C#	
Workflow ▷ Other Languages		C# Empty Project		Visual C#	
<ul> <li>Other Project Type</li> <li>Database</li> </ul>	25	<b>c</b> ≇	Windows Service	Visual C#	
<ul> <li>Test Projects</li> <li>Online Templates</li> </ul>		<b>●C</b> #	C [#] WPF Custom Control Library Visual C#		
		<b>~C</b>	WPF User Control Library	Visual C#	
		≞c‡	Windows Forms Control Library	Visual C#	
Name:	Size_Position				
Location:	c:\	-	\documents\visual studio 2010\Projects	•	Browse
Solution name:	Size_Position				<ul><li>Create directory for solution</li><li>Add to source control</li></ul>
					OK Cancel

Change the project properties. Select the Project $Size_Position Properties...$  item in the main menu.



Select item Target framework\.NET Framework4 from the tab Application.

Application	Configuration: N/A
Build	
Build Events	Assembly name:
	SimpleReport
Debug	Target framework:
Resources	.NET Framework 4 Client Profile 🔹
Services	.NET Framework 2.0 .NET Framework 3.0
Settings	.NET Framework 3.5 .NET Framework 3.5 Client Profile
Reference Paths	.NET Framework 4 Client Profile

In the opened window press the "Yes" button.



Target Fran	mework Change
?	Changing the Target Framework requires that the current project be closed and then reopened. Any unsaved changes within the project will be automatically saved. Changing Target Framework may require manual modification of project files in order to build. Are you sure you want to change the Target Framework for this project?
	Yes No Help

Open main form of the application by double click on the "Form1.cs" in the Solution Explorer.



Click "DataSet" element on the Toolbox and place DataSet onto the form.



Select "Untyped dataset", click "OK"



The component is available in the lower part of the window.



### Step 4

Select dataSet1 in the form editor. On the property grid, select Tables property, click button  $\Box$  in order to open property editor.

Pro	perties	<b>→</b> Ĥ	×					
dataSet1 System.Data.DataSet →								
2↓ 🔲 🖋 🖾								
	Namespace		*					
	Prefix							
	Relations	(Collection)						
	Tables	(Collection)						
4	Design	N1						
	(Name)	dataSet1						
	GenerateMemb	True						
	Modifiers	Private						
4	Misc							
	EnforceConstrai	True						
	RemotingForma	Xml	-					
Tal The this	Tables The collection that holds the tables for this DataSet.							

Click "Add" in order to add table. Set property TableName = Employee.

Tables Collection Editor				? ×
Members:		Employee Properties:		
0 Employee		Data     (ApplicationSetting		•
		Columns	(Collection)	
		Constraints DisplayExpression	(Collection)	
		MinimumCapacity	50	
		Namespace		E
		PrimaryKey	DataColumn[]	
		TableName	Employee	
		⊿ Design		
		(Name)	dataTable1	
	X	GenerateMember	True	
		Modifiers	Private	
Add		⊿ Misc		-

Select Columns property, click button  $\overline{\operatorname{Im}}$  in order to open property editor.

Click "Add" to add a new column. Add three columns. Set ColumnName property to "EmployeeName", "HomePhone", and "Note".

Columns Collection Editor			?	×
Members:	Not	te Properties:		
0 EmployeeName	۵	Data		*
1 HomePhone	⊳	(ApplicationSetting:		
2 Note		AllowDBNull	True	
		AutoIncrement	False	
		AutoIncrementSeed	0	
		AutoIncrementStep	1	=
		Caption	Note	
	(	ColumnName	Note	
		DataType	System.String	
		DateTimeMode	UnspecifiedLocal	
		DefaultValue	<dbnull></dbnull>	
		Expression		
		MaxLength	-1	
		Namespace		
Add		Prefix		-
			Clos	e

Right click on the form and select "View Code" in the context menu to view code.

Form1.cs [Design]* ×		
	Y	View Code F7
	8	Lock Controls
	ß	Paste Ctrl+V
	<b>7</b>	Properties

Add the following code to the class constructor in order to fill data source.

```
public Form1()
        {
            InitializeComponent();
            DataRow row = dataTable1.NewRow();
            row["EmployeeName"] = "Nancy Davolio";
            row["HomePhone"] = "(206)555-9857";
            row["Note"] = "Education includes a BA in psychology from
Colorado State University in 1970. She also completed The Art of the Cold
Call. Nancy is a member of Toastmasters International.";
            dataTable1.Rows.Add(row);
            row = dataTable1.NewRow();
            row["EmployeeName"] = "Andrew Fuller";
            row["HomePhone"] = "(206) 555-9482";
            row["Note"] = "Andrew received his BTS commercial in 1974 and a
Ph.D. in international marketing from the University of Dallas in 1981. He
is fluent in French and Italian and reads German. He joined the company as a
sales representative, was promoted to sales manager in January 1992 and to
vice president of sales in March 1993. Andrew is a member of the Sales
Management Roundtable, the Seattle Chamber of Commerce, and the Pacific Rim
Importers Association.";
            dataTable1.Rows.Add(row);
            row = dataTable1.NewRow();
            row["EmployeeName"] = "Anne Dodsworth";
            row["HomePhone"] = "(71) 555-4444";
            row["Note"] = "Anne has a BA degree in English from St. Lawrence
College.
         She is fluent in French and German.";
            dataTable1.Rows.Add(row);
        }
```

# Step 7

Get back to the application form by clicking the "Form1.cs[Design]" tab.



Click on the "ReportManager" on the Toolbox and place this component onto the form. This component is designed to store collections of report templates and data sources.



The component is available in the lower part of the window.



## Step 8

On the property grid, initialize OwnerForm property of the ReportManager by selecting the form it is located on.



Double click on ReportManager to open ReportManager editor.

Form1.cs Form1.cs [Design] ×		Ţ
Form1		
	aReportManager editor	
	Reports Data sources	
	Add Delete Run Designer	
		OK Cancel
and data Set1		

Go to "Data sources" tab, click "Add", set data source name – "Employee", select data source value – "dataSet1.Employee".



Go to "Reports" tab, click "Add" and select "InlineReportSlot".

OK

Cancel

ReportManager editor	
Reports Data sources	
InlineReportSlot OK	Cancel
UriReportSlot	

Set name of the report in the property ReportName – "Size_Position".

Click "Run Designer" in order to open template editor - Report Designer.



Create new empty template – select File\New from the main menu.



Select "Blank Report" in the Wizards Gallery and click "OK".

•	PERPETUUM software	
	Wizards Gallery	23
	New         Saved           Blank Report         Standard Report           Pivot table Report         Pivot table Report	
	Load from file OK C	ancel

Click the "Properties" tab of the tool window in the right part of the designer.





Properties 🝷 👎 🗙					
doc	docum gt1 Document 🔹				
4	Appearance				
⊳	GraphicsSettings	PerpetuumSoft.Reporting.			
	MasterReport				
	ShowObjectBour	True			
۵	Behaviour				
	DoublePass	False			
	InvalidRenderLer	ThrowException			
۵	Design				
	Name	document 1			
4	Grid Settings				
	GridStep	0,5 cm			
	ShowGrid	True			
	SnapToGrid	True			
۵	Misc				
	DataSources	(Collection)			
	Delete EmptyPage	False			
	Description				
	MetricUnit	Centimeter			
	Parameters	(Collection)			
	Title				
4	Render				
	StyleSheet				
4	Script				
	CommonScript				
	CompilerVersion				
	CustomLanguage				
	GenerateScript				
	Imports				
	ScriptLanguage	VisualBasicNET			
CommonScript Determines code of the main script sections. Allows you to declare global script variables a					
<b>***</b>	riope	Boom Document			

Set property ScriptLanguage = CSharp.



#### Set property GridStep = 0,2 cm.



### Step 14

Press "Detail" button on the Insert tab in the group Container.

File	Home	Insert	Layout Vie	ew						
	PageHead	er T	TextBox	*	<u> S</u> hape	ChartControl	{ <b>⊟</b> DataBand	SideBySide	Header	📒 SubReport
New	PageOverl	ay 📑	AdvancedText	Picture	✓ZipCode	🧟 Widget	E GroupBand	🖶 CrossBand	😑 Detail 📐	🗲 Content
Page 🚪	PageFoote	r RTF	RichText	, icture	BarCode	WinFormsControl	{ BandContainer		Footer	PivotTable
	Page		Text		Illust	ration		Containe	er	

Click on the template area to add a band.

### Step 15

Press button "TextBox" on the Insert tab in the group Text.



Click on the Detail band area to add TextBox element inside Detail.

Double click on the TextBox area to open Text editor. Enter the following text: "information about employees".

Change size of the TextBox element by dragging its corner. Set its size to "5,8; 0,6 cm". Changing of the size is visible on the property grid.



Select Detail band. Set Size property to "21; 0,6 cm".



# Step 16

Press "DataBand" button on the Insert tab in the group Container.



Click on the template area to add DataBand to the template.

Set data source in the property DataSource = Employee.

Set CanGrow and CanShrink properties to "True".



Press "Detail" button on the Insert tab in the group Container.

File	Home I	nsert Layout Vi	ew				_	
	PageHeader	T TextBox	🔀 🔽 Sha	pe	E DataBand	SideBySide	Header	SubReport
New	PageOverlay	T AdvancedText	Picture Zip	Code 🧖 Widget	E GroupBand	🖶 CrossBand	😑 Detail	🖙 Content
Page	PageFooter	RTF RichText	Ban	Code  🛅 WinFormsControl	{ BandContainer		Footer	PivotTable
	Page	Text		Illustration		Containe	er	

Click on the DataBand area to add Detail band inside DataBand.

Set CanGrow and CanShrink properties of the Detail band to "True".

**Step 18** 

Go to "DataSources" tab.



Drag and drop "EmployeeName", "HomePhone", "Note" fields from the dataBand1 tree to the detail1 band. As a result TextBoxes are created. Value property is automatically filled with script loading data from the data source.

Change size and position of the DataBand and Detail bands.

Select all TextBox elements, click "Left Alignment" button on the Home tab in the group Alignment. Set Size property of TextBoxes to "8; 0,6 cm".

Aste Objects Delete Objects	$\mathbf{B}  \mathbf{I}  \mathbf{U}  \mathbf{A}^{A} \mathbf{A}^{Y}  \mathbf{\underline{A}}^{Y}$		Fill Border Margin	No Style	÷ A ⇒ Edit ⊽ Style
Clipboard	Font	Alignment	Appearance	Styles	
ame	Binding	* <i>Jz</i>			
1 1 1 1 1	2 1 3 1 4 1 5 1	6 1 7 1 8 1 5	9   10   11	12 i 13 i 14 i 15 i 16	i 17 i 18 i 19
detail1:Detail informati	on about employees	5			
detail2:Detail	0				
GetData	ı("Employee Employ ı("Employee HomeF ı("Employee Note")>	/eeName") Phone")> o			

Select TextBox with dataBand1["Note"]. Set the CanShrink and CanGrow properties to "True" in property grid.

### Step 20

Add one more TextBox to the detail2 band. Change its size and position so that the other three TextBox elements were inside the added element. Select the Border property, click the  $\Box$  button to open Border Editor. Set border for the element.

📴 Border Editor	23
Line drawing	Line type
	None
	OK Cancel

Select the Size property in Binding ToolBar and set the value to "new Vector(textBox5.Size.X, Unit.Convert(1.2,Unit.Centimeter, Unit.InternalUnit) + (double)textBox4.RenderHeight)".

Properties

- 4 X

tex	tBox5 TextBox	-
	] 2 4   <b>= (P-3)</b>	
۵	Appearance	
	Angle	
	Border	
	Fill	
	Font	
	Margins	
	StyleName	
	TextAlign	
	TextFill	
	ToolTip	
	Value	
۵	Data	
	Tag	
۵	Layout	
	Location	
	Size	new Vector(textBox5
۵	Navigation	
	Bookmark	
	Hyperlink	
۵	Render	
	CanGrow	
	CanShrink	
	GrowToBottom	
	Visible	
Siz	ze	
Ind	licates the the size o	of the control.
-		
P	Proper ) Dat	taSour 🔚 DocumentT

# Step 21

Save template, close Report Designer.

## **Step 22**

Add code to display report to the class constructor. Write RenderComplited event handler of the InlineReportSlot object.

```
public Form1()
{
    InitializeComponent();
    DataRow row = dataTable1.NewRow();
```



```
row["EmployeeName"] = "Nancy Davolio";
            row["HomePhone"] = "(206)555-9857";
            row["Note"] = "Education includes a BA in psychology from
Colorado State University in 1970. She also completed The Art of the Cold
Call. Nancy is a member of Toastmasters International.";
            dataTable1.Rows.Add(row);
            row = dataTable1.NewRow();
            row["EmployeeName"] = "Andrew Fuller";
            row["HomePhone"] = "(206) 555-9482";
            row["Note"] = "Andrew received his BTS commercial in 1974 and a
Ph.D. in international marketing from the University of Dallas in 1981. He
is fluent in French and Italian and reads German. He joined the company as a
sales representative, was promoted to sales manager in January 1992 and to
vice president of sales in March 1993. Andrew is a member of the Sales
Management Roundtable, the Seattle Chamber of Commerce, and the Pacific Rim
Importers Association.";
            dataTable1.Rows.Add(row);
            row = dataTable1.NewRow();
            row["EmployeeName"] = "Anne Dodsworth";
            row["HomePhone"] = "(71) 555-4444";
            row["Note"] = "Anne has a BA degree in English from St. Lawrence
College.
          She is fluent in French and German.";
            dataTable1.Rows.Add(row);
            inlineReportSlot1.RenderCompleted += new
EventHandler(reportSlot RenderCompleted);
        }
        private void reportSlot RenderCompleted(object sender, EventArgs e)
        {
            using (PerpetuumSoft.Reporting.View.PreviewForm previewForm = new
PerpetuumSoft.Reporting.View.PreviewForm(inlineReportSlot1))
            {
                previewForm.WindowState = FormWindowState.Maximized;
                previewForm.ShowDialog(this);
            }
        }
```

Add two buttons onto the form (drag and drop "Button" element from the Toolbox onto the form).



Select Button element on the form, edit Text property on the property grid. Set Text = Template for one button and Text = Report for the other one.

)	PE	ERF	PETUUM www.software	vw.perpetuumsoft.c	com					
		Prop	perties	•	Ψ×	Prop	perties		<b>▼</b> ₽	×
		but	ton1 System.Wi	indows.Forms.Bu	ttc 🕶	but	ton2 System.Wi	ndows.Form	s.Buttc	Ŧ
			<u></u> ≹↓ 🗉 🖋	E			<u></u> 2↓ 🗉 🖋	E		
			ImageIndex	(none)			ImageIndex	(none)		*
			ImageKey	(none)			ImageKey	(none)		
			ImageList	(none)			ImageList	(none)		
		_	RightToLeft	No			RightToLeft	No		
		C	Text	Template 📋	-)	C	Text	Report ]	-	)
		-	TextAlign	MiddleCenter			TextAlign	MiddleCent	er	
			TextImageRelati	Overlay			TextImageRelati	Overlay		
			UseMnemonic	True			UseMnemonic	True		
			UseVisualStyleB	True			UseVisualStyleB	True		
			UseWaitCursor	False			UseWaitCursor	False		

Create Click event handlers for the buttons – double click on the Button element on the form. Add code launching report generation to the event handler. For example, use the following code:

```
private void button1_Click(object sender, EventArgs e)
{
    inlineReportSlot1.DesignTemplate();
}
private void button2_Click(object sender, EventArgs e)
{
    inlineReportSlot1.Prepare();
}
```

### **Step 24**

Click "Start Debugging" on the Visual Studio toolbar in order to start application.



Click the "Report" button in the opened application window.

🖳 Form1	
Template	Report

Generated report is viewed in the Report Viewer.



🥔 document1 - Preview report	
File View Navigate Document Help	1 + 10 0
information about employees	
Nancy Davolio	
(206)555-9857	
Education includes a BA in psychology from Colorado State University in 1970. She also completed The Art of the Cold Call. Nancy is a member of Toastmasters International.	E
Andrew Fuller	
(206) 555-9482	
Andrew received his BTS commercial in 1974 and a Ph.D. in international marketing from the University of Dallas in 1981. He is fluent in French and Italian and reads German. He joined the company as a sales representative, was promoted to sales manager in January 1992 and to vice president of sales in March 1993. Andrew is a member of the Sales Management Roundtable, the Seattle Chamber of Commerce, and the Pacific Rim Importers Association. Anne Dodsworth	
(71) 555-4444	
Anne has a BA degree in English from St. Lawrence College. She is fluent in	
	•

To edit report template, close Report Viewer and click "Template" on the application form.




# **Report without Bands**

Template of a card storing information on the customer. The card contains data on company name, address, phone, and name of contact person.

#### Step 1

Create new project in Microsoft Visual Studio. Select New\Project from the main menu.



Select Windows Forms Application, set project name – "WithoutBands", set directory to save the project to.

New Project					? ×
Recent Templates		.NET Fra	mework 4 🔹 Sort by: Default	• III (III)	Search Installed Templates
Installed Templates  Visual C#		<b>c</b> ≢	Windows Forms Application	Visual C#	Type: Visual C# A project for creating an application with a
Windows Web		<b>*</b>	WPF Application	Visual C#	Windows Forms user interface
▷ Office Cloud Reporting		C1	Console Application	Visual C#	
<ul> <li>SharePoint</li> <li>Silverlight</li> </ul>		<b>∵</b> ¢#	Class Library	Visual C#	
Test WCF		[∞] c♯	WPF Browser Application	Visual C#	
Workflow ▷ Other Languages		C#	Empty Project	Visual C#	
<ul> <li>Other Project Type</li> <li>Database</li> <li>Toot Projects</li> </ul>	is	Ę≇	Windows Service	Visual C#	
Online Templates		<b>●</b> C [#]	WPF Custom Control Library	Visual C#	
		<b>₹C</b> #	WPF User Control Library	Visual C#	
		<mark>≣</mark> C [#]	Windows Forms Control Library	Visual C#	
Name:	WithoutBands				
Location: c:\			\documents\visual studio 2010\Projects	•	Browse
Solution name:	WithoutBands				<ul> <li>Create directory for solution</li> <li>Add to source control</li> </ul>
					OK Cancel



Change the project properties. Select the Project\WithoutBands Properties... item in the main menu.



Select item Target framework\.NET Framework4 from the tab Application.

Application	Configuration: N/A
Build	
Build Events	Assembly name:
	SimpleReport
Debug	Target framework:
Resources	.NET Framework 4 Client Profile 🔹
Services	.NET Framework 2.0 .NET Framework 3.0
Settings	.NET Framework 3.5 .NET Framework 3.5 Client Profile
Reference Paths	.NET Framework 4 Client Profile

In the opened window press the "Yes" button.



Target Fra	mework Change
?	Changing the Target Framework requires that the current project be closed and then reopened. Any unsaved changes within the project will be automatically saved. Changing Target Framework may require manual modification of project files in order to build. Are you sure you want to change the Target Framework for this project?
	Yes No Help

Open main form of the application by double click on the "Form1.cs" in the Solution Explorer.



Click "DataSet" element on the Toolbox and place DataSet onto the form.



Select "Untyped dataset", click "OK"



The component is available in the lower part of the window.



#### Step 4

Select dataSet1 in the form editor. On the property grid, select Tables property, click button in order to open property editor.

Properties 🔹 👎 🗙							
dataSet1 System.Data.DataSet →							
2∎ 2↓ 🔲 🖋 🖾							
	Namespace		*				
	Prefix						
	Relations	(Collection)					
	Tables	(Collection)					
4	Design	N1					
	(Name)	dataSet1					
	GenerateMemb	True	-				
	Modifiers	Private	-				
4	Misc						
	EnforceConstrai	True					
	RemotingForma	Xml	-				
Tables The collection that holds the tables for this DataSet.							

Click "Add" in order to add table. Set property TableName = Customers.

Tables Collection Editor					8
Members:		Cus	stomers Properties:		
0 Customers		۵	Data		
		$\triangleright$	(ApplicationSetting		
			Columns	(Collection)	
			Constraints	(Collection)	
			DisplayExpression		
			MinimumCapacity	50	
			Namespace		
			Prefix		
			PrimaryKey	DataColumn[]	
			TableName	Customers	
		4	Design		
			(Name)	dataTable1	
	×		GenerateMember	True	
	· ·		Modifiers	Private	
Add		4	Misc		

Select Columns property, click button  $\overline{\mbox{lm}}$  in order to open property editor.

Tables Collection Editor					? ×
Members:		Cus	tomers Properties:		
0 Customers		۵	Data		*
		Þ	(ApplicationSetting:		
		(	Columns	(Collection)	)
			Constraints	(Collection)	
			DisplayExpression		
			MinimumCapacity	50	
			Namespace		=
			Prefix		
			PrimaryKey	DataColumn[]	
			TableName	Customers	
		۵	Design		
			(Name)	dataTable1	
	X		GenerateMember	True	
			Modifiers	Private	
Add		۵	Misc		-
					Close

Click "Add" to add a new column. Add four columns. Set ColumnName property to "CompanyName", "Address", "ContactName", "Phone" correspondingly.

olumns Collection Editor					
Members:		Pho	one Properties:		
0 CompanyName		۵	Data		
1 Address		$\triangleright$	(ApplicationSetting:		[
2 ContactName			AllowDBNull	True	
3 Phone			AutoIncrement	False	
			AutoIncrementSeed	0	
			AutoIncrementStep	1	
			Caption	Phone	
		(	ColumnName	Phone	
			DataType	System.String	
			DateTimeMode	UnspecifiedLocal	
			DefaultValue	<dbnull></dbnull>	
			Expression		
	×		MaxLength	-1	
			Namespace		
Add			Prefix		

Right click on the form and select "View Code" in the context menu to view code.

Form1.cs [Design]*	×		
🖳 Form1			
		View Code	F7
	•	Lock Controls	45
		Paste	Ctrl+V
	1	Properties	
		0	

Add the following code to the class constructor in order to fill data source.

```
public Form1()
{
    InitializeComponent();
    DataRow row = dataTable1.NewRow();
    row["CompanyName"] = "Alfreds Futterkiste";
```

```
row["Address"] = "Obere Str. 57";
row["ContactName"] = "Maria Anders";
row["Phone"] = "030-0074321";
dataTable1.Rows.Add(row);
row = dataTable1.NewRow();
row["CompanyName"] = "Ana Trujillo Emparedados y helados";
row["Address"] = "Avda. de la Constitución 2222";
row["ContactName"] = "Ana Trujillo";
row["Phone"] = "(5) 555-4729";
dataTable1.Rows.Add(row);
row = dataTable1.NewRow();
row["CompanyName"] = "Ernst Handel";
row["Address"] = "Kirchgasse 6";
row["ContactName"] = "Roland Mendel";
row["Phone"] = "7675-3425";
dataTable1.Rows.Add(row);
row = dataTable1.NewRow();
row["CompanyName"] = "Toms Spezialitäten";
row["Address"] = "Luisenstr. 48";
row["ContactName"] = "Karin Josephs";
row["Phone"] = "0251-031259";
dataTable1.Rows.Add(row);
```

}

Get back to the application form by clicking the "Form1.cs[Design]" tab.



Click on the "DataGridView" on the Toolbox and place this component onto the form.





Select DataGridView element. On the property grid, select DataSource property, click button , select "dataSet1" as a data source.



Select "Customers" table in the DataMember property.

Pro	Properties 🔹 🕈 🖓 🗙							
dat	dataGridView1 System.Windows.Forms.Dat •							
	Visible	True	•					
4	Data							
⊳	(ApplicationSettin							
Þ	(DataBindings)							
6	DataMember	Customers 👻	۱I					
L	DataSource	dataSet1	,					
	Tag							
4	Design							
	(Name)	dataGridView1						
	GenerateMember	True	Ŧ					

Change size of the form and DataGridView element so that all the columns are visible on the form.

ſ	🖳 For	m1			
		CompanyName	Address	ContactName	Phone
	*				
ć	,				

Create a new class. Right click on "WithoutBands" in the Solution Explorer, select Add\Class... in the context menu.

		•	Solution Explorer	<b>т</b> џ х
			🖻 🗿 👩 I	2 🗉 🖧
			Solution 'W	/ithoutBands' (1 project)
[		Build		Bands
	_	Rebuild		ences
		Clean		config
	2	Publish		1.cs
		Add		orm1.Designer.cs
New Item Ctrl+Shift+A		Add Reference		orm1.resx
Existing Item Shift+Alt+A		Add Service Reference		lam.cs
New Folder		Add Service Reference		
Windows Form	\$	View Class Diagram		
🔠 User Control		Set as StartUp Project		
🔁 Component		Debug	+	
Class Shift+Alt+C	1	Add Solution to Source Control		
	<b>~</b>	Cut	Ctrl+X	
	Ē.	Paste	Ctrl+V	
	$\times$	Remove	Del	
		Rename		
		Unload Project		prer 🛛 📷 Team Explorer
	Ĩ	Open Folder in Windows Explorer		<b>-</b> ₽ ×
	Ŀ.	Properties	Alt+Enter	roject Properties 🔹

Set class name – "Customer", click "Add" button.

Installed Templates	Sort by: Default		Search Installed Templates
✓ Visual C# Items Code	Class	Visual C# Items	Type: Visual C# Items An empty class definition
General Web	Interface	Visual C# Items	
Windows Forms WPF	Windows Form	Visual C# Items	
Reporting RSS for SL	User Control	Visual C# Items	
Silverlight SVforRS	Component Class	Visual C# Items	
Workflow Online Templates	User Control (WPF)	Visual C# Items	
	About Box	Visual C# Items	
	ADO.NET Entity Data Model	Visual C# Items	
	ADO.NET EntityObject Generator	Visual C# Items	
	ADO.NET Self-Tracking Entity Gen	erator Visual C# Items	
	Application Configuration File	Visual C# Items	
	Application Manifest File	Visual C# Items	
Name: Customer	Assembly Information File	Visual C# Items	
	_		Add Cancel

```
Class code:
```

{

```
public class Customer
    public Customer()
    {
    }
    private string company = String.Empty;
    public string CompanyName
    {
        get
        {
            return company;
        }
        set
        {
            company = value;
        }
    }
    private string address = String.Empty;
    public string Address
    {
        get
        {
            return address;
        }
        set
        {
            address = value;
        }
    }
    private string phone = String.Empty;
    public string Phone
```

? X

```
{
    get
    {
        return phone;
    }
    set
    {
        phone = value;
    }
}
private string contact = String.Empty;
public string ContactName
{
    get
    {
        return contact;
    }
    set
    {
        contact = value;
    }
}
```

}

Go to the "Form1.cs" tab. Create instance of the Customer class. Write function to fill data source with the values from the DataGridView table.

#### Step 11

Add two buttons onto the form (drag and drop "Button" element from the Toolbox onto the form).



Select Button element on the form, edit Text property on the property grid. Set Text = Template for one button and Text = Report for the other one.

Properties	<b>→</b> †	×	Prop	perties	*	Ψ×
button1 System.Wi	ndows.Forms.Butte	c 🕶	button2 System.Windows.Forms.Buttc +			
🤮 🛃 🔳 🖋 🛛			•	<b>≵↓ 💷 </b> 🖋		
ImageIndex	(none)	~		ImageIndex	(none)	~
ImageKey	(none)			ImageKey	(none)	
ImageList	(none)			ImageList	(none)	
RightToLeft	No			RightToLeft	No	- 01
Text	Template 📋 🔽	) I	0	Text	Report ]	-)
TextAlign	MiddleCenter			TextAlign	MiddleCenter	
TextImageRelati	Overlay			TextImageRelati	Overlay	
UseMnemonic	True			UseMnemonic	True	
UseVisualStyleB	True			UseVisualStyleB	True	
UseWaitCursor	False			UseWaitCursor	False	

Create Click event handlers for the buttons – double click on the Button on the form. Add code launching report generation to the event handler. For example, use the following code:

```
private void button1_Click(object sender, EventArgs e)
{
    SetData();
    inlineReportSlot1.DesignTemplate();
}
private void button2_Click(object sender, EventArgs e)
{
    SetData();
    inlineReportSlot1.Prepare();
}
```

#### **Step 12**

Click on the "ReportManager" on the Toolbox and place this component onto the form. This component is designed to store collections of report templates and data sources.



The component is available in the lower part of the window.

🖳 dataSet1	reportManager1

#### **Step 13**

On the property grid, initialize OwnerForm property of the ReportManager by selecting the form it is located on.



#### Step 14

Double click on ReportManager to open ReportManager editor. On the "Reports" tab, click "Add" and select "InlineReportSlot".

ReportManager editor	
Reports Data sources	
InlineReportSlot OK	Cancel
UriReportSlot	

Set name of the report in the property ReportName – "WithoutBands".

Click "Run Designer" in order to open template editor – "Report Designer".



	Report name = WithoutBands	Ū.	Z 🕴 🔚		
		⊿	Data		I
		$\triangleright$	(ApplicationSettings)		I
		⊿	Design		I
			(Name)	inlineReportSlot1	I.
			GenerateMember	True	
			Modifiers	Private	
		⊿	Misc		I
			Document	Document	
			ExceptionMode	Waming	
			ReportName	Without Bands	
		Re	port Name		
			portruino		
	Aug Delete Chun Designer				
				OK Cancel	
Ľ					1

6

Create new empty template – select File\New from the main menu.



Select "Blank Report" in the Wizards Gallery and click "OK".

PEF	RPETUUM software	www.perpetuumsoft.com			
G	Dwg M.Con and a Col	I			~
	New Saved	lery			23
	Blank Report				
	Standard Rep Pivot table Re	ort port			
			Load from file	ОК	Cancel

Click the "Properties" tab of the tool window in the right part of the designer.





Properties 🝷 🖣 🗙							
docum gt1 Document							
Ĵ] ĝ↓ Î ⊡							
۵	Appearance						
⊳	GraphicsSettings	PerpetuumSoft.Reporting.					
	MasterReport						
	ShowObjectBour	True					
۵	Behaviour						
	DoublePass	False					
	InvalidRenderLer	ThrowException					
۵	Design						
	Name	document 1					
4	Grid Settings						
	GridStep	0,5 cm					
	ShowGrid	True					
	SnapToGrid	True					
۵	Misc						
	DataSources	(Collection)					
	DeleteEmptyPage	False					
	Description						
	MetricUnit	Centimeter					
	Parameters	(Collection)					
	Title						
۵	Render						
	StyleSheet						
۵	Script						
	CommonScript						
	CompilerVersion						
	CustomLanguage						
	GenerateScript						
	Imports						
	ScriptLanguage	VisualBasicNET					
CommonScript							
Allo	ermines code of the ws you to declare	global script variables a					
2	Prope 🔚 Dat	aSo 📄 Document					

Set property ScriptLanguage = CSharp.



Press button "TextBox" on the Insert tab in the group Text.



Click on the template area to add TextBox element to the template. In the same way add three more TextBox elements.

#### **Step 19**

Open Script Browser - press the "Script Browser" button in the Home tab in the Scripts group.

File	Home	Insert	Layou	ut View	Format						
Paste Obje	ects 🔏 C X D	ut Objects opy Object elete Objec	; ts	IUA	× A × A	• А		Fill Border Margin	No Style	<ul> <li>▲</li> <li>✓</li> <li>Edit</li> <li>Style</li> </ul>	Script Browser Check Script
	Clipboar	d		Fo	nt	5	Alignment	Appearance	Styles	5	Scripts

Right click on textBox1 in DocumentTree. Select Bindings\Value in the context menu.



Write the "GetData("Customer.CompanyName")" script in the appeared window.



#### Step 20

Set the Value property to "GetData("Customer.Address")",

"GetData("Customer.ContactName")", "GetData("Customer.Phone")" for other TextBoxes in the same way.

Press the "Save all" button.

T textBox1.Value	 3 🕈	> ^
GetData("Customer.CompanyName")		
T textBox2.Value	-	∍
GetData("Customer.Address")		
T textBox3.Value	-	∍
GetData("Customer.ContactName")		
T textBox4.Value	-	<b>)</b>
GetData("Customer.Phone")		
T textBox4.Value GetData("Customer.Phone")	 -	2 *

Close Script Browser.

### **Step 21**

Press Shift and select all the elements by the left mouse button. Click "Left Alignment" button on the Home tab in the group Alignment.

Change size of the elements and set positions in the following way:

File Ho	me Insert Layout View Format								
Paste Objects	H Cut Objects Copy Objects Copy Objects B I U A A A A A A A A A A A A A A A A A A	Angle	Fill	Border Margin	No Style		Styles		÷ A Edit Style
Name	Binding - fz								
1 1	1 1 2 1 3 1 4 1 5 1 6 1 7 1 8	8 1 9	9 1 1		12 i 13	1 14 1 15	1 16 1	17   1	8 i 19
	● ≪GetData("Customer.CompanyName")> ● ≪GetData("Customer.Address")> ● ≪GetData("Customer.ContactName")> ● ≪GetData("Customer.Phone")> ●		0 0 0 0						• • • • • • •

## Step 22

Save template, close Report Designer.

#### Step 23

Add code to display report to the class constructor. Write RenderComplited event handler of the InlineReportSlot object.

```
public Form1()
{
    InitializeComponent();
    DataRow row = dataTable1.NewRow();
    row["CompanyName"] = "Alfreds Futterkiste";
    row["Address"] = "Obere Str. 57";
    row["ContactName"] = "Maria Anders";
    row["Phone"] = "030-0074321";
    dataTable1.Rows.Add(row);
    row = dataTable1.NewRow();
    row["CompanyName"] = "Ana Trujillo Emparedados y helados";
```





Click "Start Debugging" on the Visual Studio toolbar in order to start application.



On the application form, select any record and click "Report" button to open card with the information on the selected company.

🖳 Fo	rm1			
	CompanyName	Address	ContactName	Phone
	Alfreds Futterkiste	Obere Str. 57	Maria Anders	030-0074321
	Ana Trujillo Empa	Avda. de la Cons	Ana Trujillo	(5) 555-4729
•	Emst Handel	Kirchgasse 6	Roland Mendel	7675-3425
	Toms Spezialitäten	Luisenstr. 48	Karin Josephs	0251-031259
*				
			Templa	te Report

Generated report is viewed in the Report Viewer.



document1 - Preview report	
File View Navigate Document Help	
🚓 🛀 📑 🍺 🖬 🚓 🗟 🗟 🖉 🔍 🔍 🔍 🗮 🛅 🥋 158 %	- I 🔤 🗮 I Ŧ ↑ ↓ ± I @ @
<b>E</b> 111 11	
Ernst Handel	
7075 0 405	
/6/5-3425	
Kirchgasse 6	
Roland Mendel	
4	
Page1 of 1 - Zoom 158%	

To edit report template, close Report Viewer and click "Template" on the application form.

🖳 For	m1							
	CompanyName	Address	ContactName	Phone				
	Alfreds Futterkiste	Obere Str. 57	Maria Anders	030-0074321				
	Ana Trujillo Empa	Avda. de la Cons	Ana Trujillo	(5) 555-4729				
•	Emst Handel	Kirchgasse 6	Roland Mendel	7675-3425				
	Toms Spezialitäten	Luisenstr. 48	Karin Josephs	0251-031259				
*								
	Template Report							

Similar application sample is located in the following folder "\Perpetuum Software\Net ModelKit Suite\ Samples\Report Sharp-Shooter\CSharp\WithoutBands".

Similar sample in the Samples Center is Reports\Simple Reports\Without Bands.



## **Parameterized Report**

Template of a report containing date and time set by the user.

#### Step 1

Create new project in Microsoft Visual Studio. Select New\Project from the main menu.



Select Windows Forms Application, set project name – "Parameters", set directory to save the project to.

New Project					ि <u>×</u>					
Recent Templates		.NET Fra	mework 4 🔹 Sort by: Default	- III III	Search Installed Templates					
Installed Templates  Visual C#		<b></b> ¢#	Windows Forms Application	Visual C#	Type: Visual C# A project for creating an application with a					
Windows Web		< C [#]	WPF Application	Visual C#	windows Forms user interface					
Cloud Reporting			Console Application	Visual C#						
<ul> <li>SharePoint</li> <li>Silverlight</li> </ul>		<b>c</b> ♯	Class Library	Visual C#						
Test WCF		°°C‡	WPF Browser Application	Visual C#						
Workflow ▷ Other Languages		C#	Empty Project	Visual C#						
<ul> <li>Other Project Type</li> <li>Database</li> </ul>	5	Windows Service		Visual C#						
Online Templates		<b>●C</b> #	WPF Custom Control Library	Visual C#						
		<b>•</b> ¢	WPF User Control Library	Visual C#						
		≝c‡	Windows Forms Control Library	Visual C#						
Name:	Parameters									
Location:	c:\	-	\documents\visual studio 2010\Projects	Browse						
Solution name:	Parameters			Create directory for solution     Add to source control						
					OK Cancel					

Change the project properties. Select the Project  $\Parameters$  Properties... item in the main menu.



Select item Target framework\.NET Framework4 from the tab Application.

Application	Configuration: N/A	latte											
Build		aut											
Build Events	Assembly name:												
	SimpleReport												
Debug	Target framework:												
Resources	.NET Framework 4 Client Profile	-											
Services	.NET Framework 2.0 .NET Framework 3.0	٦											
Settings	.NET Framework 3.5 .NET Framework 3.5 Client Profile												
Reference Paths	.NET Framework 4 .NET Framework 4 Client Profile Install other frameworks												
		_											

In the opened window press the "Yes" button.



Target Fran	nework Change
?	Changing the Target Framework requires that the current project be closed and then reopened. Any unsaved changes within the project will be automatically saved. Changing Target Framework may require manual modification of project files in order to build. Are you sure you want to change the Target Framework for this project?
	Yes No Help

Open main form of the application by double click on the "Form1.cs" in the Solution Explorer.



Click on the "ReportManager" on the Toolbox and place this component onto the form. This component is designed to store collections of report templates and data sources.



The component is available in the lower part of the window.



On the property grid, initialize OwnerForm property of the ReportManager by selecting the form it is located on.

Pro	perties	<b>→</b> Ţ	×
rep	ortManager1 P	erpetuumSoft.Repo	•
•	<b>≵</b> ↓ 🔲 🖋		
	DataSources	Objects	*
4	Design		
	(Name)	reportManager1	
	GenerateMemb	[©] True	
	Modifiers	Private	
4	Misc		Ξ
	About	(c) 2002-2011 Perp	
	OwnerForm	Form1 🔷 💌	
	Reports	(Collection)	-

## Step 5

Double click on ReportManager to open ReportManager editor.

🖳 Form1				
	□ Rep	ortManager editor		
	Report	s) Data sources	₽₽₽₽	
		Add Delete Run	Designer	
		FileReportSlot InlineReportSlot		OK Cancel
		UrlReportSlot k		

On the "Reports" tab, click "Add" and select "InlineReportSlot".

## Step 6

Set name of the report in the property ReportName – "Parameters".

Click "Run Designer" in order to open template editor – Report Designer.



	ExceptionMode Warning
	ReportName Parameters
	Panart Nama
	пероплане
Add Delete Bun Designer	
The Delete Thur Designer	
	OK Cancel

Create new empty template – select item File\New from the main menu.



Select "Blank Report" in the Wizards Gallery and click "OK".

•	PERPETUUM software	www.perpetuumsoft.com			
	📴 Wizards Gall	ery			
	New Saved				
	Blank Report				
	Standard Rep	ort			
	Pivot table Re	port			
			Load from file	ОК	Cancel
	·				

23

## Step 8

Click the "Properties" tab of the tool window in the right part of the designer.





Pro	perties	<b>→</b> Å ×
doc	um gt1 Docum	ent 🔹
	]⊉↓ 🖻	
4	Appearance	
⊳	GraphicsSettings	PerpetuumSoft.Reporting.
	MasterReport	
	ShowObjectBour	True
۵	Behaviour	
	DoublePass	False
	InvalidRenderLer	ThrowException
۵	Design	
	Name	document 1
4	Grid Settings	
	GridStep	0,5 cm
	ShowGrid	True
	SnapToGrid	True
۵	Misc	
	DataSources	(Collection)
	Delete EmptyPage	False
	Description	
	MetricUnit	Centimeter
	Parameters	(Collection)
	Title	
4	Render	
	StyleSheet	
4	Script	
	CommonScript	
	CompilerVersion	
	CustomLanguage	
	GenerateScript	
	Imports	
	ScriptLanguage	VisualBasicNET
Co Det Allo	mmonScript termines code of th ws you to declare	e main script sections. global script variables a
<b>***</b>	riope	Boom Document

Set property ScriptLanguage = CSharp.



Select Parameters property, click button 🗔 to open collection editor.

	опар госпа	nue
۵	Misc	
	DataSources	(Collection)
	<b>DeleteEmptyPages</b>	False
	Description	
	MetricUnit	Centimeter
	Parameters	(Collection)
	Title	
4	Render	

In the Collection Editor, click + button to add a new parameter. Set property Name = Date.

In the same way add one more parameter and set property Name = Number.

🕎 Collection Editor		- 8 %
Members		Properties
Date	+)	
Number	x	▲ Misc
	•	Name         Number           Parameter Type         System.String
		Name Determines the parameter name
		OK Cancel



Press "Detail" button on the Insert tab in the group Container.

Click on the template area to add Detail band to the report template.

### Step 11

Press button "TextBox" on the Insert tab in the group Text.



Click on the Detail band area to add TextBox element inside Detail. Set Text property to "Date".

Jetail1:Detail														
Data														
	Ť													

#### Step 12

Add three more TextBox elements to the Detail band. Set the following properties for the first one: set Value = GetParameter("Date").

ne	text	Box4 Binding Value 🔽 fx GetParameter("Number")													)																										
	1	Т		Т	1	Т	2	Т	3	I	4	Т	5	Т	6	1	7	1	8	Т	9	Т	10	Т	11	Т	12	Т	13	Т	14	ı.	15	Т	16	Т	17	Т	18	i.	19
Γ																																									
de	etail	1:D	etail				-														_	_				•							0							•	
ŀ		Date <getparameter< th=""><th>er('</th><th colspan="6">"Date")&gt;</th><th colspan="5">Number o <getf< th=""><th>Pa</th><th colspan="7">⊃arameter("Number")&gt;  ○</th><th></th></getf<></th></getparameter<>							er('	"Date")>						Number o <getf< th=""><th>Pa</th><th colspan="7">⊃arameter("Number")&gt;  ○</th><th></th></getf<>					Pa	⊃arameter("Number")>  ○																			
F											+		-	-	-					•				-		+	•	+		-		-		•							

For the second one, set property Text = Number. For the third one, reset Text property and set Value to "GetParameter("Number")".

#### Step 13

Save template, close Report Designer.

#### **Step 14**

Place two Label elements onto the form (drag and drop "Label" element from the Toolbox to the form).



Select Label element on the form, select Text property. Set Text = Date for the first one, set Text = Number for the second one.

Pro	Properties			X
lab	label1 System.Windows.Forms.Label			•
•=	. <b>2↓</b> 🔲 🖋   🖻			
	ImageKey	(none)		*
	ImageList	(none)		
	RightToLeft	No		
0	Text	Date	-	
	TextAlign	TopLeft		
	UseMnemonic	True		Ξ
	UseWaitCursor	False		

Properties			•	Ŧ	X
label2 System.Windows.Forms.Label					•
	<b>≵</b> ↓   🗉 🥖   🖻	1			
	ImageKey	(none)			*
	ImageList	(none)			
	RightToLeft	No		_	
(	Text	Number		Ŧ	
	TextAlign	TopLeft			1
	UseMnemonic	True			Ε
	UseWaitCursor	False			

#### Step 15

Add two TextBox elements onto the form (drag and drop "TextBox" element from the Toolbox onto the form).



-	Toolbox	u <b>▼</b> -⊨	Х			
Da	⊳ Olap	ModelKit				
ta S	▷ Chart	t ModelKit				
ourc	▷ Instru	umentation ModelKit				
ß	Report Sharp-Shooter					
×	All Windows Forms					
Too	mon Controls					
box	R.	Pointer				
	ab	Button				
	~	CheckBox				
	80	CheckedListBox				
	= 0	ComboBox				
		DateTimePicker				
	Α	Label				
	<u>A</u>	LinkLabel				
	= 0	ListBox				
	9 9 9 9 9	ListView				
	#_	MaskedTextBox				
		MonthCalendar				
	100	NotifyIcon				
	1	NumericUpDown				
	~	PictureBox				
		ProgressBar				
	۲	RadioButton				
		RichTextBox				
	abl	TextBox				
	<u>k</u>	ToolTip	5			
	8	TreeView				
		WebBrowser				

Select TextBox element on the form, edit Name property on the property grid. Set Name = dateTextBox for the first one, set Name = numberTextBox for the second one.

Properties	<b>→</b> Ĥ	×	Pro	perties
dateTextBox System	.Windows.Forms.Text	E 🕶	nur	mberTextE
🤮 🛃 🔳 🗲 🛛				<u></u> ≵↓ 🗉
WordWrap	True	*		WordWrap
⊿ Data			⊿	Data
(ApplicationSettin)			⊳	(Application
<ul> <li>(DataBindings)</li> </ul>			⊳	(DataBind
Tag				Tag
▲ Design			4	Design
(Name)	dateTextBox		C	(Name)
GenerateMember	True			GenerateN
Locked	False	=		Locked
Modifiers	Private			Modifiers



Right click on the form and select "View Code" in the context menu to view code.

Form1.cs [Design]* 🗙			
🖳 Form1			×
	F	View Code	F7
	۵	Lock Controls	
	Ē.	Paste	Ctrl+V
	3	Properties	

Add code to fill form fields and display report to the class constructor. Create RenderComplited event handler of the InlineReportSlot object.

```
public Form1()
        {
            InitializeComponent();
            dateTextBox.Text = DateTime.Now.ToString();
            numberTextBox.Text = Environment.TickCount.ToString();
            inlineReportSlot1.RenderCompleted += new
EventHandler(reportSlot RenderCompleted);
        }
        private void reportSlot RenderCompleted(object sender, EventArgs e)
        {
            using (PerpetuumSoft.Reporting.View.PreviewForm previewForm = new
PerpetuumSoft.Reporting.View.PreviewForm(inlineReportSlot1))
            {
                previewForm.WindowState = FormWindowState.Maximized;
                previewForm.ShowDialog(this);
            }
        }
```

#### Step 17

Add code to pass parameters to the report to the class constructor, create GetReportParameter event handler:



```
private void inlineReportSlot1_GetReportParameter(object sender,
PerpetuumSoft.Reporting.Components.GetReportParameterEventArgs e)
{
    e.Parameters["Date"].Value = dateTextBox.Text;
    e.Parameters["Number"].Value = numberTextBox.Text;
}
```

}

Add two buttons onto the form (drag and drop "Button" element from the Toolbox onto the form).

Toolbox	ĸ	▼⊕X			
⊳ Olap	> Olap ModelKit				
▷ Char	Chart ModelKit				
⊳ Instr	Instrumentation ModelKit				
⊳ Repo	ort Sharp-Shooter				
⊳ All V	All Windows Forms				
⊿ Com	nmon Controls				
k	Pointer				
ab	Button	•			
	CheckBox	5			
	CheckedListBox				
= 0	ComboBox				
	DateTimeDicker				

Select Button element on the form, edit Text property on the property grid. Set Text = Template for one button and Text = Report for the other one.

▼ Ț × Pro	perties	<b>-</b> ↓ ×		
rms.Buttc 🕶 🛛 bu	tton2 System.Wi	ndows.Forms.Buttc 🕶		
	2↓ 🔲 🗲 🖾			
ie) ^	ImageIndex	(none) ^		
e)	ImageKey	(none)		
	ImageList	(none)		
	RightToLeft	No		
	Text	Report 👖 🖃		
enter	TextAlign	MiddleCenter		
	TextImageRelati	Overlay		
	UseMnemonic	True		
	UseVisualStyleB	True		
	UseWaitCursor	False		

Create Click event handlers for the buttons – double click on the Button on the form. Add code launching report generation to the event handler. For example, use the following code:

```
private void button1_Click(object sender, EventArgs e)
{
    inlineReportSlot1.DesignTemplate();
}
private void button2_Click(object sender, EventArgs e)
{
    inlineReportSlot1.Prepare();
```


# }

## **Step 19**

Click "Start Debugging" on the Visual Studio toolbar in order to start application.

File	Edit	View	Refactor	Project	Build	Debug	Team	Data	Tools	Test	Window	Help	
16	-	- 🞽	🖬 😥   8	k 🗈 🗎	, <b>'</b> ,	· (° · .	<b>-</b>		Debug	•	·   🏄		- 🖂 🛃 🐼 🏷 🛃 🖬 - 💡
	- 🗟 🎙	A.≥	17   🚎 🕯		2   🗆	<b>P Q</b>	Şa 🗛 🗸	2.8	-, ,				

Application form appears.



Date and Number fields can be edited. When you click "Report" button, the report is generated and can be viewed in Report Viewer. Values from the fields are passed to the report as parameters.





To edit report template click "Template" on the application form.

- Form1		
Date	8.04.2011 14:55:	14
Number	107556386	
	Template	Report

Similar application sample is located in the following folder "\Perpetuum Software\Net ModelKit Suite\ Samples\Report Sharp-Shooter\CSharp\DocumentParametersUsing".



# **Multicolumn Report**

Template of a report containing a list of clients (company name and phone) in two columns.

#### Step 1

Create new project in Microsoft Visual Studio. Select New\Project from the main menu.



Select Windows Forms Application, set project name – "Columns", set directory to save the project to.

New Project						? ×
Recent Templates		.NET Fra	mework 4 🔹 Sort by: Default	■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■	Search Installed Templates	Q
Installed Templates					Type: Visual C#	
▲ Visual C#	C#		Windows Forms Application	Visual C#	A project for creating an applicat	ion with a
Windows Web			WPF Application	Visual C#	Windows Forms user interface	
▷ Office Cloud		CN	Console Application	Visual C#		
Reporting SharePoint		<b>c</b> ≢	Class Library	Visual C#		
Test WCF		[∞] c♯	WPF Browser Application	Visual C#		
Workflow ▷ Other Languages		C#	Empty Project	Visual C#		
<ul> <li>Other Project Type</li> <li>Database</li> </ul>	es.	<b>_</b> C [#]	Windows Service	Visual C#		
Test Projects Online Templates		•C#	WPF Custom Control Library	Visual C#		
		<b>•</b> C [#]	WPF User Control Library	Visual C#		
		≞c‡	Windows Forms Control Library	Visual C#		
Name:	Columns					
Location:	c:/		\documents\visual studio 2010\Projects	•	Browse	
Solution name:	Columns				Create directory for solution     Add to source control	
					ОК	Cancel

Change the project properties. Select the Project\Columns Properties... item in the main menu.



Select item Target framework\.NET Framework4 from the tab Application.

Application	Configuration: N/A
Build	
Build Events	Assembly name:
	SimpleReport
Debug	Target framework:
Resources	.NET Framework 4 Client Profile 🔹 🔻
Services	.NET Framework 2.0 .NET Framework 3.0
Settings	NET Framework 3.5 NET Framework 3.5 Client Profile
Reference Paths	.NET Framework 4 .NET Framework 4 Client Profile

In the opened window press the "Yes" button.



Target Fra	mework Change
?	Changing the Target Framework requires that the current project be closed and then reopened. Any unsaved changes within the project will be automatically saved. Changing Target Framework may require manual modification of project files in order to build. Are you sure you want to change the Target Framework for this project?
	Yes No Help

Open main form of the application by double click on the "Form1.cs" in the Solution Explorer.



Click "DataSet" element on the Toolbox and place DataSet onto the form.



Select "Untyped dataset", click «OK"



The component is available in the lower part of the window.



#### Step 4

Select dataSet1 in the form editor. On the property grid, select Tables property, click button in order to open property editor.

Pro	perties	<b>▲</b> Å	×		
dataSet1 System.Data.DataSet -					
•	≵↓ 🔳 🦸				
	Namespace		*		
	Prefix				
	Relations	(Collection)			
	Tables	(Collection)			
4	Design	h			
	(Name)	dataSet1			
	GenerateMemb	True	-		
	Modifiers	Private	-		
4	Misc				
	EnforceConstrai	True			
RemotingForma Xml					
Tables The collection that holds the tables for this DataSet.					

Click "Add" in order to add table. Set property TableName = Customers.

Tables Collection Editor					B
Members:		Cus	tomers Properties:		
0 Customers		۵	Data		
		⊳	(ApplicationSetting		
			Columns	(Collection)	
			Constraints	(Collection)	
			DisplayExpression		
			MinimumCapacity	50	
			Namespace		
			Prefix		
			PrimaryKey	DataColumn[]	
			TableName	Customers	
		۵	Design		
			(Name)	dataTable1	
	×		GenerateMember	True	
			Modifiers	Private	
Add		4	Misc		

Select Columns property, click button  $\overline{\square}$  in order to open property editor.

Tables Collection Editor					?	x
Members:		Cus	stomers Properties:			
0 Customers		۵	Data			*
		Þ	(ApplicationSetting:			
			Columns	(Collection)		
			Constraints	(Collection)		
			DisplayExpression			
			MinimumCapacity	50		
			Namespace			=
			Prefix			
			PrimaryKey	DataColumn[]		
			TableName	Customers		
		۵	Design			
			(Name)	dataTable1		
	X		GenerateMember	True		
			Modifiers	Private		
Add		⊿	Misc			Ŧ
					Close	

Click "Add" to add a new column. Add two columns. Set ColumnName property to "CompanyName", "Phone" correspondingly.

Columns Collection Editor				3	×
Members:		Pho	one Properties:		
0 CompanyName	]	۵	Data		
1 Phone		⊳	(ApplicationSetting:		
			AllowDBNull	True	
			AutoIncrement	False	
			AutoIncrementSeed	0	
			AutoIncrementStep	1	Ξ
			Caption	Phone	
		(	ColumnName	Phone	
			DataType	System.String	·
			DateTimeMode	UnspecifiedLocal	_
			DefaultValue	<dbnull></dbnull>	
			Expression		
	X		MaxLength	-1	
			Namespace		
Add			Prefix		-

Right click on the form and select "View Code" in the context menu to view code.

Form1.cs [Design]*	×		
🖳 Form1			
		View Code	F7
	•	Lock Controls	15
		Paste	Ctrl+V
	1	Properties	
		0	

Add the following code to the class constructor in order to fill data source.

```
public Form1()
{
    InitializeComponent();
    DataRow row = dataTable1.NewRow();
    row["CompanyName"] = "Alfreds Futterkiste";
```

```
row["Phone"] = "030-0074321";
dataTable1.Rows.Add(row);
row = dataTable1.NewRow();
row["CompanyName"] = "Ana Trujillo Emparedados y helados";
row["Phone"] = "(5) 555-4729";
dataTable1.Rows.Add(row);
row = dataTable1.NewRow();
row["CompanyName"] = "Ernst Handel";
row["CompanyName"] = "Ernst Handel";
row["Phone"] = "7675-3425";
dataTable1.Rows.Add(row);
row = dataTable1.NewRow();
row = dataTable1.NewRow();
row["CompanyName"] = "Toms Spezialitäten";
row["Phone"] = "0251-031259";
dataTable1.Rows.Add(row);
```

To see how the list is divided into two columns add more data.

# Step 7

Get back to the application form by clicking the "Form1.cs[Design]" tab.

Form1.cs* ×	Form1.cs [Design]*
🔩 Columns.Fo	orm1
⊡using S	ystem;
using S	ystem.Collection
using S	ystem.Component/
using S	vstem Data:

Click on the "ReportManager" on the Toolbox and place this component onto the form. This component is designed to store collections of report templates and data sources.



The component is available in the lower part of the window.

₽ dataSet1	reportManager1



On the property grid, initialize OwnerForm property of the ReportManager by selecting the form it is located on.



# Step 9

Double click on ReportManager to open ReportManager editor.

Form1.cs Form1.cs [Design] ×		•
Form1		
	ReportManager editor          Report       Data sources         Data       Data         Image: State       Image: State         Image: State       Image: State	
		OK Cancel
JataSet1		

Go to "Data sources" tab, click "Add", set Data source name – "Customers", select data source Value – "dataSet1.Customers".

🖳 ReportManager editor	
Reports Data sources	
Data bindings list	
Edit object name	
Value data Set 1. Customers	e only OK Cancel
Add Edit Delete	
	OK Cancel

Go to "Reports" tab, click "Add" and select "InlineReportSlot".

ReportManager editor		
Reports Data sources		
Add Delete Run Designer		
	ОК	Cancel
UriReportSlot		

Set name of the report in the property ReportName – "Columns".

Click "Run Designer" in order to open template editor – Report Designer.

Reports Data sources		
inlineReportSlot1	<b>₽</b> ↓ <b></b>	
	⊿ Data	
	<ul> <li>(Application Settings)</li> </ul>	
	⊿ Design	
	(Name)	inlineReportSlot1
	GenerateMember	True
	Modifiers	Private
	⊿ Misc	
	Document	Document
	ExceptionMode	Waming
	ReportName	Columns
	ReportName	
Ada Delete Kun Designer		
		OK Cancel

5

Create new empty template – select File\New from the main menu.



Select "Blank Report" in the Wizards Gallery and click "OK".

•	PERPETUUM software	/ww.perpetuumsoft.com			
	Wizards Galler	у			23
	New Saved Blank Report Standard Report Pivot table Repo	t prt			
			Load from file	OK	Cancel

Click the "Properties" tab of the tool window in the right part of the designer.





Pro	perties	<b>-</b> † ×					
doo	um gt1 Docum	ent 🔹					
	] <b>≵</b> ↓ 🖻						
4	Appearance						
⊳	GraphicsSettings	PerpetuumSoft.Reporting.					
	MasterReport						
	ShowObjectBour	True					
۵	Behaviour						
	DoublePass	False					
	InvalidRenderLer	ThrowException					
۵	Design						
	Name	document 1					
۵	Grid Settings						
	GridStep	0,5 cm					
	ShowGrid	True					
	SnapToGrid	True					
۵	Misc						
	DataSources	(Collection)					
	DeleteEmptyPage	False					
	Description						
	MetricUnit	Centimeter					
	Parameters	(Collection)					
	Title						
۵	Render						
	StyleSheet						
4	Script						
	CommonScript						
	CompilerVersion						
	CustomLanguage						
	GenerateScript						
	Imports						
	ScriptLanguage	VisualBasicNET					
CommonScript Determines code of the main script sections. Allows you to declare global script variables a							
:							

Set property ScriptLanguage = CSharp.



Press "DataBand" button on the Insert tab in the group Container.



Click on the template area to add DataBand section to the template.

Set data source in the property DataSource = Customers.

Set the following properties: ColumnsCount = 2, ColumnsGap = 0,5 cm.



## Step 15

Press "Detail" button on the Insert tab in the group Container.

Click on the DataBand area to add Detail band inside DataBand.

## Step 16

Go to "DataSources" tab.



Drag and drop "CompanyName", "Phone" fields from the dataBand1 tree to the detail1 band. As a result TextBoxes are created. Value property is automatically filled with script loading data from the data source.

# Change size of the elements and locate them so that they don't exceed the red line determining column border.

data Dan 44 Data Dan 4 Data Council - Avertain and		 				 _	 1
dataBand1:DataBand_DataSource = Customers							
detail1:Detail							
<databand1< th=""><th><databand1< th=""><th></th><th></th><th></th><th></th><th></th><th></th></databand1<></th></databand1<>	<databand1< th=""><th></th><th></th><th></th><th></th><th></th><th></th></databand1<>						
["CompanyName"]>	["Phone"]>						
end of dataBand1							

## Step 17

Save template, close Report Designer.

#### Step 18

Add code to display report to the class constructor. Write RenderComplited event handler of the InlineReportSlot object.

```
public Form1()
      {
            InitializeComponent();
            DataRow row = dataTable1.NewRow();
            row["CompanyName"] = "Alfreds Futterkiste";
            row["Phone"] = "030-0074321";
            dataTable1.Rows.Add(row);
            row = dataTable1.NewRow();
            row["CompanyName"] = "Ana Trujillo Emparedados y helados";
            row["Phone"] = "(5) 555-4729";
            dataTable1.Rows.Add(row);
            row = dataTable1.NewRow();
            row["CompanyName"] = "Ernst Handel";
            row["Phone"] = "7675-3425";
            dataTable1.Rows.Add(row);
            row = dataTable1.NewRow();
            row["CompanyName"] = "Toms Spezialitäten";
            row["Phone"] = "0251-031259";
            dataTable1.Rows.Add(row);
            inlineReportSlot1.RenderCompleted += new
EventHandler(reportSlot RenderCompleted);
        }
        private void reportSlot RenderCompleted (object sender, EventArgs e)
        {
            using (PerpetuumSoft.Reporting.View.PreviewForm previewForm = new
PerpetuumSoft.Reporting.View.PreviewForm(inlineReportSlot1))
            {
                previewForm.WindowState = FormWindowState.Maximized;
                previewForm.ShowDialog(this);
            }
        }
```

#### **Step 19**

Add two buttons onto the form (drag and drop "Button" element from the Toolbox onto the form).



Select Button element on the form, edit Text property on the property grid. Set Text = Template for one button and Text = Report for the other one.

Pro	perties	<b>▲</b> Å	×	Pro	perties	*	Ψ×
but	t <b>ton1</b> System.Wi	ndows.Forms.Butto	-	but	t <b>ton2</b> System.Wi	ndows.Forms.B	uttc 🕶
•	≵↓ 🔲 🖋			•	<b>≵</b> ↓ 🔲 🥖		
	ImageIndex	(none)	-		ImageIndex	(none)	~
	ImageKey	(none)			ImageKey	(none)	
	ImageList	(none)			ImageList	(none)	
	RightToLeft	No			RightToLeft	No	
C	Text	Template 📋 👻	F	0	Text	Report ]	-)
	TextAlign	MiddleCenter			TextAlign	MiddleCenter	
	TextImageRelati	Overlay			TextImageRelati	Overlay	
	UseMnemonic	True			UseMnemonic	True	
	UseVisualStyleB	True			UseVisualStyleB	True	
	UseWaitCursor	False			UseWaitCursor	False	

Create Click event handlers for the buttons – double click on the Button element on the form. Add code launching report generation to the event handler. For example, use the following code:

```
private void button1_Click(object sender, EventArgs e)
{
    inlineReportSlot1.DesignTemplate();
}
private void button2_Click(object sender, EventArgs e)
{
    inlineReportSlot1.Prepare();
}
```

#### Step 20

Click "Start Debugging" on the Visual Studio toolbar in order to start application.

File	Edit	View	Refactor	Project	Build	Debug	Team	Data	Tools	Test	Window	Help	
16	-	- 🞽	🖬 🥥   J	6 🗈 🛍	, <b>  -</b> ) -	• @ • <	<b>-</b> 🕫		Debug		- 🛛 🚈		- 🖂 🛃 😒 🏷 🛃 💶 - 🖕
1	- 🔁 👌	L_ A≳	17   🛊 🕯		2   🗆		Ş2 C3 4	2.3	-, ,				

Click the "Report" button in the opened application window.



Generated report is viewed in the Report Viewer.

🤣 document1 - Preview report				- 0 ×
File View Navigate Document Help	150 9/	12.5		
		9		
Alfreds Futterkiste	030-0074321	Toms Spezialitäten	0251-031259	
Ana Trujillo Emparedados y helad	(5) 555-4729	Ana Trujillo Emparedados y helad	(5) 555-4729	
Ernst Handel	7675-3425	Ernst Handel	7675-3425	=
Toms Spezialitäten	0251-031259	Toms Spezialitäten	0251-031259	
Ana Trujillo Emparedados y helad	(5) 555-4729			
Ernst Handel	7675-3425			
Toms Spezialitäten	0251-031259			
Ana Trujillo Emparedados y helad	(5) 555-4729			
Ernst Handel	7675-3425			
Toms Spezialitäten	0251-031259			
Ana Trujillo Emparedados y helad	(5) 555-4729			
Ernst Handel	7675-3425			
Toms Spezialitäten	0251-03 <mark>1</mark> 259			
Ana Trujillo	(5) 555-4729			-

Page 1 of 1 • Zoom 158%

To edit report template, close Report Viewer and click "Template" on the application form.





 $Similar \ sample \ in \ the \ Samples \ Center \ is \ Reports \ Simple \ Reports \ MultiColumn.$ 



# **Horizontal List**

Template of a report containing positive whole numbers in a line.

#### Step 1

Create new project in Microsoft Visual Studio. Select New\Project from the main menu.



Select Windows Forms Application, set project name – "CrossBand", set directory to save the project to.

New Project					? ×
Recent Templates		.NET Fra	mework 4 🔹 Sort by: Default	▼ III (III)	Search Installed Templates
Installed Templates <ul> <li>Visual C#</li> </ul>		¢#	Windows Forms Application	Visual C#	Type: Visual C# A project for creating an application with a
Windows Web		Ś	WPF Application	Visual C#	Windows Forms user interface
Cloud Cloud		CI	Console Application	Visual C#	
<ul> <li>SharePoint</li> <li>Silverlight</li> </ul>		<b>c</b> ♯	Class Library	Visual C#	
Test WCF		°°C≉	WPF Browser Application	Visual C#	
Workflow ▷ Other Languages		C#	Empty Project	Visual C#	
<ul> <li>Other Project Type</li> <li>Database</li> </ul>	25	<b>_</b> c [#]	Windows Service	Visual C#	
Test Projects Online Templates		<b>●</b> C#	WPF Custom Control Library	Visual C#	
		<b>~C</b>	WPF User Control Library	Visual C#	
		<mark>⊞</mark> C‡	Windows Forms Control Library	Visual C#	
Name	CrossBand				
Location:	C(\		\documents\visual studio 2010\Proiects	•	Browse
Solution name:	CrossBand			Create directory for solution	
					OK Cancel

Change the project properties. Select the  $\ensuremath{\mathsf{Project}}\xspace\ensuremath{\mathsf{Properties}}\xspace$  ... item in the main menu.

00	<ul> <li>CrossBand - Microsoft Visual Studio (Administrator)</li> </ul>											
File	e	Edit	View	Proje	ect	Build	Debug	Team	Data	Format	Tools	
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4	1	ļ.	후 릐		Ad	ld User (	Control					
	E.	4	10	<b>B</b> J	Ad	ld Comp	onent					
D.	FO	orm1.	.cs [Des	₹	Ad	ld Class.				Shift+A	t+C	
ata S				<b>*::</b>	Ad	ld New I	tem			Ctrl+Shi	ift+A	
ourc			Form1	:::	Ad	ld Existir	ng Item			Shift+Alt+A		
8 >A					Exe	clude Fr	om Proje	ct				
₹ To				ð	Sh	ow All F	iles					
ollo					Ad	ld Refere	ence					
×					Ad	ld Servic	e Referen	ice				
					Se	t as Starl	tUp Proje	ct				
				49	Re	fresh Pr	oject Too	lbox Iten	ns			
					Cr	ossBand	Propertie	es	3			

Select item Target framework\.NET Framework4 from the tab Application.

Application	Configuration: N/A
Build	Configuration.
Build Events	Assembly name:
	SimpleReport
Debug	Target framework:
Resources	.NET Framework 4 Client Profile
Services	.NET Framework 2.0 .NET Framework 3.0
Settings	.NET Framework 3.5 .NET Framework 3.5 Client Profile
Reference Paths	.NET Framework 4 Client Profile
	· · · · ·

In the opened window press the "Yes" button.



Target Fran	nework Change
?	Changing the Target Framework requires that the current project be closed and then reopened. Any unsaved changes within the project will be automatically saved. Changing Target Framework may require manual modification of project files in order to build. Are you sure you want to change the Target Framework for this project?
	Yes No Help

Open main form of the application by double click on the "Form1.cs" in the Solution Explorer.



Click on the "ReportManager" on the Toolbox and place this component onto the form. This component is designed to store collections of report templates and data sources.



The component is available in the lower part of the window.



On the property grid, initialize OwnerForm property of the ReportManager by selecting the form it is located on.

Pro	perties	<b>→</b> Ţ	×
rep	ortManager1 P	erpetuumSoft.Repo	•
•	<b>≵</b> ↓ 🔲 🖋		
	DataSources	Objects	*
4	Design		
	(Name)	reportManager1	
	GenerateMemb	[©] True	
	Modifiers	Private	
4	Misc		Ξ
	About	(c) 2002-2011 Perp	
	OwnerForm	Form1 🔷 💌	
	Reports	(Collection)	-

## Step 5

Double click on ReportManager to open ReportManager editor.

Form1.cs [Design]* ×		
🖳 Form1	ReportManager editor	
	Add Delete Run Designer	
	UriReportSlot UriReportSlot	

On the "Reports tab", click "Add" and select "InlineReportSlot".

# Step 6

Set name of the report in the property ReportName – "CrossBand".

Click "Run Designer" in order to open template editor - Report Designer.



**Report Name** 

## Step 7

Add

Delete

Create new empty template – select item File\New from the main menu.

Run Designer



Select "Blank Report" in the Wizards Gallery and click "OK".

OK

Cancel

•	PERPETUUM software	www.perpetuumsoft.com			
	📴 Wizards Galle	ry			
	New Saved				
	Blank Report				
	Standard Repo	t			
	Pivot table Rep	ort			
			Load from file	ОК	Cancel
	· · · · · · · · · · · · · · · · · · ·				

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# Step 8

Click the "Properties" tab of the tool window in the right part of the designer.





Pro	perties	<b>→</b> Å ×							
doc	um gt1 Docum	ent 🔹							
	]⊉↓ 🖻								
4	Appearance								
⊳	GraphicsSettings	PerpetuumSoft.Reporting.							
	MasterReport								
	ShowObjectBour	True							
۵	Behaviour								
	DoublePass	False							
	InvalidRenderLer	ThrowException							
۵	Design								
	Name	document 1							
4	Grid Settings								
	GridStep	0,5 cm							
	ShowGrid	True							
	SnapToGrid	True							
۵	Misc								
	DataSources	(Collection)							
	Delete EmptyPage	False							
	Description								
	MetricUnit	Centimeter							
	Parameters	(Collection)							
	Title								
4	Render								
	StyleSheet								
4	Script								
	CommonScript								
	CompilerVersion								
	CustomLanguage								
	GenerateScript								
	Imports								
	ScriptLanguage	VisualBasicNET							
Co Det Allo	CommonScript Determines code of the main script sections. Allows you to declare global script variables a								
<b>***</b>	riope	Boom Document							

Set property ScriptLanguage = CSharp.



Press "Detail" button on the Insert tab in the group Container.



Click on the template area to add Detail band to the template.

## Step 10

Press "CrossBand" button on the Insert tab in the group Container.



Click on the Detail band area to add CrossBand inside Detail.

Set property InstanceCount = 10



## Step 11

Press button "TextBox" on the Insert tab in the group Text.

Page

Click on the CrossBand area to add TextBox element inside CrossBand. Set property Value = crossBand1.LineNumber.

Report template should look as follows:

Text

ie t	extBo	x1				B	Bindi	ng	Valu	ue					•	fz	cr	033	Bar	nd1.	Li	neNı	umb	er																
	1 (		1	1	I.	2	1	3	I.	4	1	5	Т	6	1	7	1	8	1	9	T.	10	1	11	ı.	12	T.	13	1	14	1	15	ı.	16	I.	17	1	18	i.	19
det	ail1:[	Det Cr	rossi Cro	Banc SSS	i Ba	-										_		_	_			_			_		_	_				_								
		i r	nd1	Lir.	ne																																			

#### **Step 12**

Save template, close Report Designer.

#### **Step 13**

Right click on the application form and select "View Code" in the context menu to view code.

orm1.cs [Design]*	×		
🖳 Form1			
	E	View Code	F7
	8	Lock Controls	;
		Paste	Ctrl+V
	1	Properties	
	_		

Add code to display report to the class constructor. Create RenderComplited event handler of the InlineReportSlot object.



Get back to the application from by clicking "Form1.cs[Design]" tab.

Form1.cs* × Form1.cs [Design]*
🔧 CrossBand.Form1
<b>□using</b> System;
using System.Collectior
using System.ComponentA
using System Data:

Add two buttons onto the form (drag and drop "Button" element from the Toolbox onto the form).



Select Button element on the form, edit Text property on the property grid. Set Text = Template for one button and Text = Report for the other one.

)	PE	RF	PETUUM www.software	w.perpetuumsoft.con	n				
	,					_			-
		Prop	perties	<b>▲</b> ṫ	×	Pro	perties		ų×
		but	t <b>ton1</b> System.Wi	ndows.Forms.Butto		but	t <b>ton2</b> System.Wi	ndows.Forms.B	uttc 🕶
		•	≵↓ 💷 🖋			•	≵↓ 💷 🥖		
			ImageIndex	(none)	~		ImageIndex	(none)	
			ImageKey	(none)			ImageKey	(none)	
			ImageList	(none)			ImageList	(none)	
			RightToLeft	No	<b>C</b> 11		RightToLeft	No	_
		C	Text	Template 📋 💌	F	0	Text	Report ]	-)
			TextAlign	MiddleCenter			TextAlign	MiddleCenter	
			TextImageRelati	Overlay			TextImageRelati	Overlay	
			UseMnemonic	True			UseMnemonic	True	
			UseVisualStyleB	True			UseVisualStyleB	True	
			UseWaitCursor	False			UseWaitCursor	False	

Create Click event handlers for the buttons – double click on the Button on the form. Add code launching report generation to the event handler. For example, use the following code:

```
private void button1_Click(object sender, EventArgs e)
{
    inlineReportSlot1.DesignTemplate();
}
private void button2_Click(object sender, EventArgs e)
{
    inlineReportSlot1.Prepare();
}
```

#### **Step 15**

Click "Start Debugging" on the Visual Studio toolbar in order to start application.



Click the "Report" button in the opened application window.

- Form1	
Template Report	
	-

Generated report is viewed in the Report Viewer.



To edit report template, close Report Viewer and click "Template" on the application form.





# Matrix

Template of a report containing multiplication table as matrix.

#### Step 1

Create new project in Microsoft Visual Studio. Select New\Project from the main menu.



Select Windows Forms Application, set project name – "Matrix", set directory to save the project to.

New Project					2 <b>X</b>			
Recent Templates		.NET Fra	mework 4 🔹 Sort by: Default		Search Installed Templates			
Installed Templates  Visual C#		<b>_</b> c#	Windows Forms Application	Visual C#	Type: Visual C# A project for creating an application with a			
Windows Web		<b>*</b>	WPF Application	Visual C#	Windows Forms user interface			
Cloud Reporting		CI CI	Console Application	Visual C#				
<ul> <li>SharePoint</li> <li>Silverlight</li> </ul>		C#	Class Library	Visual C#				
Test WCF		[∞] c♯	WPF Browser Application	Visual C#				
Workflow  Other Languages  Other Desired Trans	_	C#	Empty Project	Visual C#				
<ul> <li>Other Project Type</li> <li>Database</li> <li>Test Projects</li> </ul>	5	<b>≣c</b> #	Windows Service	Visual C#				
Online Templates		•••	WPF Custom Control Library	Visual C#				
		•••	WPF User Control Library	Visual C#				
		E C 8	Windows Forms Control Library	Visual C#				
Name:	Matrix							
Location:	c:\		\documents\visual studio 2010\Projects	•	Browse			
Solution name:	Matrix			<ul> <li>Create directory for solution</li> <li>Add to source control</li> </ul>				
					OK Cancel			

Change the project properties. Select the Project\Matrix Properties... item in the main menu.

00	Иat	rix -	Microso	oft Vis	ual	Studio (	Administ	rator)			
File	E	dit	View	Proje	ect	Build	Debug	Team	Data	Format	Tools
File 🛄 🛄 🛐 Data Sources 🎌 Toolbox	E - - Fo	idit	View  View  Solution  Solution  Form1	Proje	Ad Ad Ad Ad Ad Ad Ad Sh Ad Sh	Build Id Wind Id User ( Id Comp Id Class. Id Ress Id Ress Id Existin clude Fro ow All F Id Refero Id Service t as Start	Debug ows Form Control oonent item ig Item om Projec iles ence te Referen tUp Proje	Team h ct	Data	Format Shift+A Ctrl+Shi Shift+A	Tools lt+C ift+A lt+A
				44	Refresh Project Toolbox Items						
				E	M	atrix Pro	perties		6	}	

Select item Target framework\.NET Framework4 from the tab Application.

Application	Configuration: N/A						
Build							
Build Events	Assembly name:						
	SimpleReport						
Debug	Target framework:						
Resources	.NET Framework 4 Client Profile 🔹						
Services	.NET Framework 2.0 .NET Framework 3.0						
Settings	.NET Framework 3.5 .NET Framework 3.5 Client Profile						
Reference Paths	.NET Framework 4 .NET Framework 4 Client Profile						

In the opened window press the "Yes" button.


Target Fran	nework Change
?	Changing the Target Framework requires that the current project be closed and then reopened. Any unsaved changes within the project will be automatically saved. Changing Target Framework may require manual modification of project files in order to build. Are you sure you want to change the Target Framework for this project?
	Yes No Help

Open main form of the application by double click on the "Form1.cs" in the Solution Explorer.



Click on the "ReportManager" on the Toolbox and place this component onto the form. This component is designed to store collections of report templates and data sources.



The component is available in the lower part of the window.



On the property grid, initialize OwnerForm property of the ReportManager by selecting the form it is located on.

Pro	perties	<b>-</b> ↓	×
rep	ortManager1 P	erpetuumSoft.Repo	•
•	<b>≵</b> ↓ 📃 🖋		
	DataSources	Objects	*
4	Design		
	(Name)	reportManager1	
	GenerateMemb	^d True	
	Modifiers	Private	
4	Misc		Ξ
	About	(c) 2002-2011 Perp	
	OwnerForm	Form1 🔵 👻	
	Reports	(Collection)	-

# Step 5

Double click on ReportManager to open ReportManager editor.

Form1.cs [Design]* ×	]			
	ReportManager editor			
	Reports Data sources			
	Add Delete	Run Designer		
	FileReportSlot InlineReportSlot UrlReportSlot		(	OK Cancel
	-			

On the "Reports tab", click "Add" and select "InlineReportSlot".

# Step 6

Set name of the report in the property ReportName – "Matrix".

Click "Run Designer" in order to open template editor - Report Designer.



Create new empty template – select item File\New from the main menu.



Select "Blank Report" in the Wizards Gallery and click "OK".

•	PERPETUUM software	www.perpetuumsoft.com			
	📴 Wizards Gal	ery			
	New Saved				
	Blank Report				
	Standard Rep	ort			
	Pivot table Re	port			
			Load from file	ОК	Cancel

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## Step 8

Click the "Properties" tab of the tool window in the right part of the designer.





Pro	perties	<b>→</b> Å ×									
doc	um gt1 Docum	ent 🔹									
	]⊉↓ 🖻										
4	Appearance										
⊳	GraphicsSettings	PerpetuumSoft.Reporting.									
	MasterReport										
	ShowObjectBour	True									
۵	Behaviour										
	DoublePass	False									
	InvalidRenderLer	ThrowException									
۵	Design										
	Name	document 1									
4	Grid Settings										
	GridStep	0,5 cm									
	ShowGrid	True									
	SnapToGrid	True									
۵	Misc										
	DataSources	(Collection)									
	Delete EmptyPage	False									
	Description										
	MetricUnit	Centimeter									
	Parameters	(Collection)									
	Title										
4	Render										
	StyleSheet										
4	Script										
	CommonScript										
	CompilerVersion										
	CustomLanguage										
	GenerateScript										
	Imports										
	ScriptLanguage	VisualBasicNET									
Co Det Allo	CommonScript Determines code of the main script sections. Allows you to declare global script variables a										
<b>***</b>	riope	Boom Document									

Set property ScriptLanguage = CSharp.



Press "Detail" button on the Insert tab in the group Container.



Click on the template area to add Detail band to the template.

## Step 10

Press "CrossBand" button on the Insert tab in the group Container.



Click on the Detail band area to add CrossBand inside Detail. Set InstanceCount property to "1".



## Step 11

Press button "TextBox" on the Insert tab in the group Text.



Click on the CrossBand area to add TextBox element inside CrossBand.

```
Set property Text = X * Y.
```

Pro	perties		• 4 ×
	D 1 T 1D		
text	Box1 LextBox		•
•	]⊉↓   🛅 ª≟		
۵	Appearance		
	Angle	0	_
(	Border		
	ClipText	False	
	Fill	[None]	
$\triangleright$	Font	Arial; 12pt	
$\triangleright$	Margins	0; 0; 0; 0 cm	
	RightToLeft	False	
	StringTrimming	Character	
	StyleName		
(	Text	X"Y	
	TextAlign	MiddleCenter	
	TextFill	[None]	

Select Border property. Click button 🔤 to open Border Editor. Set element border.

📴 Border Editor	23
Line drawing	Line type
	None
	OK Cancel

## Step 12

Add another CrossBand inside detail1 band on the right of crossBand1. Set InstanceCount property to "8".

## Step 13

Add TextBox element inside crossBand2. Set property Value = crossBand2.LineNumber+1.

ie	text	lox2				1	Bindi	ing	Valu	Je					•	fz	C	ros	sBa	nd2	.Li	neN	ımb	er+	1	)														
	1	I	T	1	I.	2	I.	3	I.	4	1	5	Т	6	Т	7	T	8	Т	9	Т	10	Т	11	Т	12	T	13	I.	14	I.	15	I.	16	I.	17	Т	18	I	19
de	etail1	:Det C	Cross	Ban	d	Cro	ossE	Band	d																															
		CrossBa	X	(*Y	CIOSDA	] <   n	cro d2	ss Lir	Ba ne	Ĭ																														
		д			ā	r -		Ť		Ť																														

Set Border property as shown in step 10.



Press "DataBand" button on the Insert tab in the group Container.



Click template area to add DataBand to the template. Set property InstanceCount = 8.



#### Step 15

Add Detail band inside dataBand1. In detail2, add CrossBand so that it is positioned left below crossBand1. Set property InstanceCount = 1.



## Step 16

Add TextBox element to the crossBand3. Set Value property to dataBand1.LineNumber+1. Set Border property as shown in step 10.

ie	textBox3	Binding Value	• fx dataBar	nd1.LineNumber+1	
	1 1 1 1 2	13141516	17181	9 i 10 i 11 i 12	12 i 13 i 14 i 15 i 16 i 17 i 18 i 19
de	etail1:Det CrossBand	ProssBand			
		<crossba nd2.Line</crossba 			
da	lataBand1:DataBand				
de	etail2:Det CrossBand				
er	nd of dataBand1				

## **Step 17**

Add another CrossBand inside detail2 so that it is located right below crossBand2. Set property InstanceCount = 8.

#### **Step 18**

Add TextBox to the crossBand4. Set Value property to

(dataBand1.LineNumber+1)*(crossBand4.LineNumber+1). Set Border property as shown in the Step 11.



Report template should look as follows:

detail1:DetaCrossBand CrossBand			
🔓 🗙 🔭 🔓 <crossba< th=""><th></th><th></th><th></th></crossba<>			
🚆 🏠 ' 🖁 nd2.Line			
<u>a</u> <u>a</u>			
dataBand1:DataBand			
detail2:DeteCrossBand CrossBand			
୍ଟି <databaର୍ଟ୍ଣ <<="" th=""><th></th><th></th><th></th></databaର୍ଟ୍ଣ>			
👹 nd1.Line 🚆 (dataBan			
end of dataBand1			

To view template structure go to "DocumentTree" tab.

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#### Step 19

Save template, close Report Designer.

### Step 20

Right click on the application form and select "View Code" in the context menu to view code.

Form1.cs [Design]* ×	Form1.cs [Design]* ×	PEF	RPETUUM software	www.per	petuun	nsoft.com		
Form1 View Code F7 Lock Controls Paste Ctrl+V	Form1 View Code F7 Lock Controls Paste Ctrl+V Properties	ſ	Form1.cs [Desig	n]* ×				
View Code     F7       Image: Controls     Image: Controls       Image: Controls     Paste       Image: Controls     Image: Controls	View Code     F7       Image: Controls     Image: Controls       Image: Paste     Ctrl+V       Image: Properties     Image: Controls		🖳 Form1					
Lock Controls	Lock Controls Ctrl+V Paste Ctrl+V Properties				F	View Code	F7	
Paste Ctrl+V	Paste Ctrl+V Properties				۵	Lock Controls	NS	
1 Uroportion	Properties					Paste	Ctrl+	·V
						J		

Add code to display report to the class constructor. Create RenderComplited event handler of the InlineReportSlot object.

```
public Form1()
{
    InitializeComponent();
    inlineReportSlot1.RenderCompleted += new
EventHandler(reportSlot_RenderCompleted);
    }
    private void reportSlot_RenderCompleted(object sender, EventArgs e)
    {
        using (PerpetuumSoft.Reporting.View.PreviewForm previewForm = new
PerpetuumSoft.Reporting.View.PreviewForm(inlineReportSlot1))
        {
            previewForm.WindowState = FormWindowState.Maximized;
            previewForm.ShowDialog(this);
        }
    }
}
```

#### Step 21

Get back to the application form by clicking "Form1.cs[Design]" tab.

Form1.cs* × Form1.cs [Design]* Matrix.Form1 □using System; using System.Collection using System.ComponentA using System Data:

Add two buttons onto the form (drag and drop "Button" element from the Toolbox onto the form).



Select Button element on the form, edit Text property on the property grid. Set Text = Template for one button and Text = Report for the other one.

Prop	perties	<b>→</b> ‡ 3	×	Pro	perties		Υ
but	ton1 System.Wi	ndows.Forms.Buttc	-	but	t <b>ton2</b> System.Wi	ndows.Forms.B	uttc 🕶
	<b>≵↓ 🔲 </b> 🖋				<b>≵↓</b> 📃 🖋		
	ImageIndex	(none)	^		ImageIndex	(none)	*
	ImageKey	(none)			ImageKey	(none)	
	ImageList	(none)			ImageList	(none)	
	RightToLeft	No			RightToLeft	No	_
C	Text	Template 📋 💌	F	0	Text	Report ]	-)
	TextAlign	MiddleCenter			TextAlign	MiddleCenter	
	TextImageRelati	Overlay			TextImageRelati	Overlay	
	UseMnemonic	True			UseMnemonic	True	
	UseVisualStyleB	True			UseVisualStyleB	True	
	UseWaitCursor	False			UseWaitCursor	False	

Create Click event handlers for the buttons – double click on the Button on the form. Add code launching report generation to the event handler. For example, use the following code:



#### **Step 22**

Click "Start Debugging" on the Visual Studio toolbar in order to start application.



Click the "Report" button in the opened application window.



Generated report is viewed in the Report Viewer.

🕎 document1 -	Preview report		A PROPERTY AND	and then reading to	-	1000				- 0 ×
File View	Navigate Documen	t Help	158 %		1 + 6 6					
			1002 100 70		V L U U					<u>^</u>
										.
	X*Y	2	3	4	5	6	7	8	9	
	2	4	6	8	10	12	14	16	18	
	3	6	9	12	15	18	21	24	27	E
	4	8	12	16	20	24	28	32	36	
	5	10	15	20	25	30	35	40	45	
	6	12	18	24	30	36	42	48	54	
	7	14	21	28	35	42	49	56	63	
	8	16	24	32	40	48	56	64	72	
	9	18	27	36	45	54	63	72	81	
l										-
Dage 1 of 1 -	700m 159%									•

To edit report template, close Report Viewer and click "Template" on the application form.





Similar sample in the Samples Center is ReportsSpecial FeaturesCross-tab report.



# **Pivot Table**

Template of a report containing pivot table with sales data. Vertical header contains information on categories and goods, horizontal header – customer names, table data – goods price considering amount and discount.

### Step 1

Create new project in Microsoft Visual Studio. Select New\Project from the main menu.



Select Windows Forms Application, set project name – "PivotTable", set directory to save the project to.



Change the project properties. Select the Project\PivotTable Properties... item in the main menu.



Select item Target framework\.NET Framework4 from the tab Application.

•	PE	RPETUUM www software	v.perpetuumsoft.com
		Application	Configuration: N/A    Platfo
		Build Build Events	Assembly name: SimpleReport
		Debug	Target framework:
	Services		.NET Framework 4 Client Profile   .NET Framework 2.0 .NET Framework 3.0
		Settings	.NET Framework 3.5 .NET Framework 3.5 Client Profile .NET Framework 4
		Reference Paths	NET Framework 4 Client Profile

In the opened window press the "Yes" button.

Target Fran	nework Change
2	Changing the Target Framework requires that the current project be closed and then reopened. Any unsaved changes within the project will be automatically saved. Changing Target Framework may require manual modification of project files in order to build. Are you sure you want to change the Target Framework for this project?
	Yes No Help

### Step 3

Open main form of the application by double click on the ``Form1.cs'' in the Solution Explorer.



Click "DataSet" element on the Toolbox and place DataSet onto the form.



Select "Untyped dataset", click "OK".

Add Dataset			
Choose a typed or untyped dataset to add to the designer.			
Typed dataset			
Name:			
Creates an instance of a typed dataset class already in your project. Choose this option to work with a dataset that has a built-in schema. See Help for details on generating typed datasets.			
Ontyped dataset			
Creates an instance of an untyped dataset class of type System.Data.DataSet. Choose this option when you want a dataset with no schema.			
OK Cancel			

The component is available in the lower part of the window.



## Step 4

Select dataSet1 in the form editor. On the property grid, select Tables property, click button  $\overline{\mbox{lm}}$  in order to open property editor.



Click "Add" in order to add table. Set property TableName = Sales.

Tables Collection Editor					
Members:		Sale	es Properties:		
0 Sales		۵	Data		*
		⊳	(ApplicationSetting:		
		(	Columns	(Collection)	)
			Constraints	(Collection)	
			DisplayExpression		
			MinimumCapacity	50	
			Namespace		E
			Prefix		
			PrimaryKey	DataColumn[]	
		(	TableName	Sales	
		۵	Design		
			(Name)	dataTable1	
	X		GenerateMember	True	
	<u> </u>		Modifiers	Private	
Add		۵	Misc		-
					Close

#### Step 5

Select Columns property, click button 🔤 in order to open property editor.

Click "Add" to add a new column. Add six columns. Set ColumnName property to "CompanyName", "CategoryName", "ProductName", "UnitPrice", "Quantity", "Discount" correspondingly. For the "UnitPrice", "Quantity", "Discount" columns set DataType property to "System.Double".



Right click on the form and select "View Code" in the context menu to view code.

Form1.cs [Design]* $\times$			
🖳 Form1			×
	Y	View Code	F7
	8	Lock Controls	
	ß	Paste	Ctrl+V
	<b>7</b>	Properties	

Add the following code to the class constructor in order to fill data source.

```
public Form1()
{
    InitializeComponent();
    DataRow row = dataTable1.NewRow();
    row["CompanyName"] = "Alfreds Futterkiste";
```

row["CategoryName"] = "Beverages"; row["ProductName"] = "Chai"; row["UnitPrice"] = 35.5; row["Quantity"] = 15; row["Discount"] = 0.05; dataTable1.Rows.Add(row); row = dataTable1.NewRow(); row["CompanyName"] = "Alfreds Futterkiste"; row["CategoryName"] = "Beverages"; row["ProductName"] = "Steeleye Stout"; row["UnitPrice"] = 105; row["Quantity"] = 5; row["Discount"] = 0; dataTable1.Rows.Add(row); row = dataTable1.NewRow(); row["CompanyName"] = "Alfreds Futterkiste"; row["CategoryName"] = "Confections"; row["ProductName"] = "Maxilaku"; row["UnitPrice"] = 2.6; row["Quantity"] = 50; row["Discount"] = 0; dataTable1.Rows.Add(row); row = dataTable1.NewRow(); row["CompanyName"] = "Alfreds Futterkiste"; row["CategoryName"] = "Dairy Products"; row["ProductName"] = "Geitost"; row["UnitPrice"] = 15.8; row["Quantity"] = 10; row["Discount"] = 0.02; dataTable1.Rows.Add(row); row = dataTable1.NewRow(); row["CompanyName"] = "Alfreds Futterkiste"; row["CategoryName"] = "Dairy Products"; row["ProductName"] = "Flotemysost"; row["UnitPrice"] = 240; row["Quantity"] = 10; row["Discount"] = 0.06; dataTable1.Rows.Add(row); row = dataTable1.NewRow(); row["CompanyName"] = "Alfreds Futterkiste"; row["CategoryName"] = "Dairy Products"; row["ProductName"] = "Raclette Courdavault"; row["UnitPrice"] = 62.5; row["Quantity"] = 15; row["Discount"] = 0; dataTable1.Rows.Add(row); row = dataTable1.NewRow(); row["CompanyName"] = "Karkki Oy"; row["CategoryName"] = "Beverages"; row["ProductName"] = "Chai"; row["UnitPrice"] = 35.5; row["Quantity"] = 15; row["Discount"] = 0.04; dataTable1.Rows.Add(row); row = dataTable1.NewRow(); row["CompanyName"] = "Karkki Oy"; row["CategoryName"] = "Beverages"; row["ProductName"] = "Ipoh Coffee"; row["UnitPrice"] = 50.5; row["Quantity"] = 20; row["Discount"] = 0; dataTable1.Rows.Add(row); row = dataTable1.NewRow();

```
row["CompanyName"] = "Karkki Oy";
row["CategoryName"] = "Grains/Cereals";
row["ProductName"] = "Filo Mix";
row["UnitPrice"] = 14;
row["Quantity"] = 25;
row["Discount"] = 0.05;
dataTable1.Rows.Add(row);
```

}

Get back to the application form by clicking the "Form1.cs[Design]" tab.

Form1.cs* ×	Form1.cs [Design]*
🔩 Pivot Table	.Form1
⊡using	System;
using	System.Collectior
using	System.ComponentN
using	System Data:

Click on the "ReportManager" on the Toolbox and place this component onto the form. This component is designed to store collections of report templates and data sources.



The component is available in the lower part of the window.

■ dataSet1	reportManager1

#### Step 8

On the property grid, initialize OwnerForm property of the ReportManager by selecting the form it is located on.



Double click on ReportManager to open ReportManager editor.

Form1.cs Form1.cs [Design] ×		Ţ
Form1		
	a. ReportManager editor	
	Reports Data sources	
	Add Delete Run Designer	
		OK Cancel
and data Set1		

Go to "Data sources" tab, click "Add", and set data source name – "Sales", select data source value – "dataSet1.Sales".



Go to "Reports" tab, click "Add" and select "InlineReportSlot".

ReportManager editor	
Reports Data sources	
InlineReportSlot OK	Cancel
UriReportSlot	

Set name of the report in the property ReportName – "PivotTable".

Click "Run Designer" in order to open template editor – Report Designer.



Add

Delete

Create new empty template – select File\New from the main menu.

Run Designer



Select "Blank Report" in the Wizards Gallery and click "OK".

ΟK

Cancel

•	PERPETUUM software	/ww.perpetuumsoft.com			
	Wizards Galler	у			23
	New Saved Blank Report Standard Report Pivot table Repo	t prt			
			Load from file	OK	Cancel

Click the "Properties" tab of the tool window in the right part of the designer.





Pro	Properties 👻 🕈 🗙			
docum st1 Document				
4	Appearance			
⊳	GraphicsSettings	PerpetuumSoft.Reporting.		
	MasterReport			
	ShowObjectBour	True		
۵	Behaviour			
	DoublePass	False		
	InvalidRenderLer	ThrowException		
۵	Design			
	Name	document 1		
4	Grid Settings			
	GridStep	0,5 cm		
	ShowGrid	True		
	SnapToGrid	True		
۵	Misc			
	DataSources	(Collection)		
	Delete EmptyPage	False		
	Description			
	MetricUnit	Centimeter		
	Parameters	(Collection)		
	Title			
4	Render			
	StyleSheet			
4	Script			
	CommonScript			
	CompilerVersion			
	CustomLanguage			
	GenerateScript			
	Imports			
	ScriptLanguage	VisualBasicNET		
CommonScript Determines code of the main script sections. Allows you to declare global script variables a				
<b>***</b>	riope	Boom Document		

Set property ScriptLanguage = CSharp.



Create style for the pivot table.

Press the "Edit Style" button on the Home tab in the group Styles.

File	Home Insert La	ayout View	_				
Paste Obje	Cut Objects Copy Objects Copy Objects Copy Objects Copy Objects	B I U A A A	• I		Fill Border Margin	No Style	<ul> <li>▲</li> <li>↓</li> <li>Edit</li> <li>↓</li> <li>Style</li> </ul>
	Clipboard	Font	E.	Alignment	Appearance	Style	s

🕎 Style Sheet Editor	ß
Styles AaBbCcDdEe PivotTable	Properties
	Border Determines the border defined by the style.
	OK Cancel

In the Style Sheet Editor, click 🕂 button to add a new style.

Set property Name = PivotTable. Select Border property, click button  $\boxed{\square}$  to open property editor. Set borders.

📴 Border Editor	23
Line drawing	Line type
	None
	Color Width 1.0
	OK Cancel

Press "PivotTable" button on the Insert tab in the group Container.

File	Home I	nsert	Layout Vie	ew						
	PageHeader	Τ	TextBox	×	<u> S</u> hape	ChartControl	{ <mark>॑</mark> DataBand	SideBySide	Header	SubReport
New	👔 PageOverlay	T	AdvancedText	Picture	✓ZipCode	👩 Widget	E GroupBand	🖶 CrossBand	💻 Detail	Content
Page	PageFooter	RTF	RichText		BarCode	WinFormsControl	{ BandContainer		Footer	I PivotTable
	Page		Text		Illust	ration		Containe	er	63

Click on the template area to add PivotTable to the template.

Set data source in the property DataSource = Sales.

📴 Source Fields					X
<b>* 8</b>					
Data source	DataCube fields			-	
	Inactive fields	- <b>+</b> -	X dimension fields	÷	
		x		X	
		个		ŕ	
		Ţ	10	į,	
	V dimension fields		Eacts fields		
	a dimension neids	T.		t	
		X	4	X	
		T		T	
		÷		÷.	
					OK Cancel



Drag and drop "CompanyName" field from the "Source fields" list to "X dimension fields". Drag and drop "CategoryName" and "ProductName" to "Y dimension fields". Edit Caption property and set only "Company", "Category", "Product".

🕎 Source Fields						X
1						
Data source		DataCube fields				
Sales	-	Inactive fields	-	X dimension fields —	-	Appearance
Source Fields			x	Company	x	Caption Product
CompanyName	i		4		•	Format ShowPercent False
CategoryName	<b>—</b>		Ľ.			Show Total True
ProductName			*		-	SortOrder Ascending
UnitPrice						TotalLabel
Quantity						⊿ Data
Discount						Aggregate Sum
						DisplayExpres:
		V dimension fields		Facts fields	.	Expression GetData("Sales.Pro
		Catagony				
		Product	X		X	
		Product	1		1	
			4		Ŧ	
						Caption
						Determines the field caption.
			]	L		
						OK Cancel

#### **Step 17**

In the Source fields editor, click 🕂 button for the "Facts fields". A new field will be added and its properties will be visible in the right part of the window.



Set the following properties:

Caption = Sales sum

Format = 0.00

TotalLabel = Total price

Width = 150.

Select Expression property, click button 🗔 to open Script Editor.

Set the following expression in the editor: "(double)GetData("Sales.UnitPrice")*(double)GetData("Sales.Quantity")*(1-(double)GetData("Sales.Discount"))"

P	Scrip	t Editor						23
	1 📮	tPrice")*(double)	GetData("Sales.Quanti	.ty") * (1- (double) Ge	tData("Sales.Discount"))	Script Editor		
						Bands	Data Sources	Parameters
						⊕ Sales ⊕ Special Fields		
	•			ш	4			
ľ							Code Snippets	OK Cancel

Select PivotTable element. Expand Style list on the property grid. Select PivotTable style for all types of cells. Set the TableCaption property = Sales.



Report template should look as follows:

		Sa	les	
		Company		
		ltem	Total	
Category	Product	Sales sum	Sales sum	
	Item 1	0.0	0.0	
Group	ltem 2	0.0	0.0	
	Total	0.0	0.0	
Т	otal	0.0	0.0	

Save template, close Report Designer.

#### Step 20

Add code to display report to the class constructor.

```
public Form1()
{
    InitializeComponent();
    DataRow row = dataTable1.NewRow();
    row["CompanyName"] = "Alfreds Futterkiste";
    row["CategoryName"] = "Beverages";
    row["ProductName"] = "Chai";
    row["UnitPrice"] = 35.5;
    row["Quantity"] = 15;
    row["Discount"] = 0.05;
    dataTable1.Rows.Add(row);
    row = dataTable1.NewRow();
    row["CompanyName"] = "Alfreds Futterkiste";
    row["CategoryName"] = "Beverages";
    row["ProductName"] = "Steeleye Stout";
    row["UnitPrice"] = 105;
    row["Quantity"] = 5;
    row["Discount"] = 0;
    dataTable1.Rows.Add(row);
    row = dataTable1.NewRow();
    row["CompanyName"] = "Alfreds Futterkiste";
    row["CategoryName"] = "Confections";
    row["ProductName"] = "Maxilaku";
    row["UnitPrice"] = 2.6;
    row["Quantity"] = 50;
    row["Discount"] = 0;
    dataTable1.Rows.Add(row);
    row = dataTable1.NewRow();
    row["CompanyName"] = "Alfreds Futterkiste";
    row["CategoryName"] = "Dairy Products";
    row["ProductName"] = "Geitost";
    row["UnitPrice"] = 15.8;
    row["Quantity"] = 10;
    row["Discount"] = 0.02;
    dataTable1.Rows.Add(row);
    row = dataTable1.NewRow();
    row["CompanyName"] = "Alfreds Futterkiste";
    row["CategoryName"] = "Dairy Products";
    row["ProductName"] = "Flotemysost";
    row["UnitPrice"] = 240;
    row["Quantity"] = 10;
    row["Discount"] = 0.06;
    dataTable1.Rows.Add(row);
```

```
row = dataTable1.NewRow();
            row["CompanyName"] = "Alfreds Futterkiste";
            row["CategoryName"] = "Dairy Products";
            row["ProductName"] = "Raclette Courdavault";
            row["UnitPrice"] = 62.5;
            row["Quantity"] = 15;
            row["Discount"] = 0;
            dataTable1.Rows.Add(row);
            row = dataTable1.NewRow();
            row["CompanyName"] = "Karkki Oy";
            row["CategoryName"] = "Beverages";
            row["ProductName"] = "Chai";
            row["UnitPrice"] = 35.5;
            row["Quantity"] = 15;
            row["Discount"] = 0.04;
            dataTable1.Rows.Add(row);
            row = dataTable1.NewRow();
            row["CompanyName"] = "Karkki Oy";
            row["CategoryName"] = "Beverages";
            row["ProductName"] = "Ipoh Coffee";
            row["UnitPrice"] = 50.5;
            row["Quantity"] = 20;
            row["Discount"] = 0;
            dataTable1.Rows.Add(row);
            row = dataTable1.NewRow();
            row["CompanyName"] = "Karkki Oy";
            row["CategoryName"] = "Grains/Cereals";
            row["ProductName"] = "Filo Mix";
            row["UnitPrice"] = 14;
            row["Quantity"] = 25;
            row["Discount"] = 0.05;
            dataTable1.Rows.Add(row);
            using (PerpetuumSoft.Reporting.View.PreviewForm previewForm = new
PerpetuumSoft.Reporting.View.PreviewForm(inlineReportSlot1))
            {
                previewForm.WindowState = FormWindowState.Maximized;
                inlineReportSlot1.RenderDocument();
                previewForm.ShowDialog(this);
            }
        }
```

Add two buttons onto the form (drag and drop "Button" element from the Toolbox onto the form).


Select Button element on the form, edit Text property on the property grid. Set Text = Template for one button and Text = Report for the other one.

Pro	perties	<b>→</b> Ĥ	×	Pro	perties		γ Ͳ ×
but	ton1 System.Wi	ndows.Forms.Butto	•	but	t <b>ton2</b> System.Wi	ndows.Forms.B	uttc 🕶
•	<b>≵↓ 💷 </b> 🖋			•	≵↓ 🔲 🖋		
	ImageIndex	(none)	~		ImageIndex	(none)	~
	ImageKey	(none)			ImageKey	(none)	
	ImageList	(none)			ImageList	(none)	
	RightToLeft	No			RightToLeft	No	
C	Text	Template 📋 💌	) I	C	Text	Report ]	•)
	TextAlign	MiddleCenter			TextAlign	MiddleCenter	
	TextImageRelati	Overlay			TextImageRelati	Overlay	
	UseMnemonic	True			UseMnemonic	True	
	UseVisualStyleB	True			UseVisualStyleB	True	
	UseWaitCursor	False			UseWaitCursor	False	

Create Click event handlers for the buttons – double click on the Button on the form. Add code launching report generation to the event handler. For example, use the following code:

```
private void button1_Click(object sender, EventArgs e)
{
    inlineReportSlot1.DesignTemplate();
}
private void button2_Click(object sender, EventArgs e)
{
    inlineReportSlot1.Prepare();
}
```

### Step 22

Click "Start Debugging" on the Visual Studio toolbar in order to start application.



Click the "Report" button in the opened application window.

P Form1	
Template Report	

Generated report is viewed in the Report Viewer.

#### 2) document1 - Preview report File View Navigate Document Help ಈ 🎦 🛱 🐊 🔟 🎊 🗟 💽 👰 🔍 🔍 🗮 📅 🔚 💭 158 % 🔹 🖓 📑 🕇 ↓ ± । 😋 😂

		Sales			
		Company			
Category	Product	Alfreds Futterkiste	Karkki Oy	Total	
	Chai	505,88	511,20	1017,08	
Povoragos	Ipoh Coffee		1010,00	1010,00	
Develages	Steeleye Stout	525,00		525,00	
	Total	1030,88	1521,20	2552,08	
Confections	Maxilaku	130,00		130,00	
Confections	Total	130,00		130,00	
	Flotemysost	2256,00		2256,00	
Dain / Draduata	Geitost	154,84		154,84	
Daily Ploducis	Raclette Courdavault	937,50		937,50	
	Total	3348,34		3348,34	
Craine/Coroole	Filo Mix		332,50	332,50	
Grains/Celeals	Total		332,50	332,50	
Total	•	4509,22	1853,70	6362,92	

To edit report template, close Report Viewer and click "Template" on the application form.



Page 1 of 1 • Zoom 158%

Similar application sample is located in the following folder "\Perpetuum Software\Net ModelKit Suite\Samples\Report Sharp-Shooter\CSharp\PivotTableGettingStarted".

- 0 ×



# **Subreports**

Template of a report containing three subreports – reports containing charts, gauges and shapes. Any report can be used as subreport. Before you create master report, design necessary templates and save them to files.

## Step 1

Create new project in Microsoft Visual Studio. Select New\Project from the main menu.



Select Windows Forms Application, set project name – "SubReport", set directory to save the project to.



Change the project properties. Select the Project\SubReport Properties... item in the main menu.



Select item Target framework\.NET Framework4 from the tab Application.

•	PE	RPETUUM www software	v.perpetuumsoft.com
		Application	Configuration: N/A    Platfo
		Build Build Events	Assembly name: SimpleReport
		Debug	Target framework:
		Services	.NET Framework 4 Client Profile   .NET Framework 2.0 .NET Framework 3.0
		Settings	.NET Framework 3.5 .NET Framework 3.5 Client Profile .NET Framework 4
		Reference Paths	NET Framework 4 Client Profile

In the opened window press the "Yes" button.

Target Fran	nework Change
2	Changing the Target Framework requires that the current project be closed and then reopened. Any unsaved changes within the project will be automatically saved. Changing Target Framework may require manual modification of project files in order to build. Are you sure you want to change the Target Framework for this project?
	Yes No Help

# Step 3

Open main form of the application by double click on the "Form1.cs" in the Solution Explorer.



Click on the "ReportManager" on the Toolbox and place this component onto the form. This component is designed to store collections of report templates and data sources.



The component is available in the lower part of the window.

n reportManager1
------------------

## Step 4

i.

On the property grid, initialize OwnerForm property of the ReportManager by selecting the form it is located on.

Pro	perties	<b>-</b> ↓	×
rep	ortManager1 P	erpetuumSoft.Repo	•
•	<b>≵↓</b> 📃 🖋		
	DataSources	Objects	*
4	Design		
	(Name)	reportManager1	
	GenerateMemb	True	
	Modifiers	Private	
4	Misc		Ξ
	About	(c) 2002-2011 Perp	
	OwnerForm	Form1 🔵 👻	
	Reports	(Collection)	Ŧ

### Step 5

Double click on ReportManager to open ReportManager editor.

8	PERPETUUM software	www.perpetuumsoft.com
	Form1.cs [Design]* ×	

On the "Reports" tab, click "Add" and select "FileReportSlot".

# Step 6

Set name of the report in property ReportName = "ChartTypes". Select FilePath property, click button  $\boxed{}$  to open dialog to select report template.

Select previously saved report template "ChartTypes" and click "OK".



In the same way add two more report templates previously saved, set properties ReportName = InstrumentsType and ReportName = Shapes.

### Step 7

Click "Add" and select "InlineReportSlot".



Set property ReportName = SubReport.



Click "Run Designer" in order to open template editor - Report Designer.

### Step 8

Create new empty template – select item File\New from the main menu.



Select "Blank Report" in the Wizards Gallery and click "OK".

•	PERPETUUM software	www.perpetuumsoft.com			
	📴 Wizards Gall	ery			
	New Saved				
	Blank Report				
	Standard Repo	ort			
	Pivot table Re	port			
			Load from file	ОК	Cancel

23

# Step 9

Click the "Properties" tab of the tool window in the right part of the designer.





Pro	perties	<b>→</b> Å ×
doc	um gt1 Docum	ent 🔹
	]⊉↓ 🖻	
4	Appearance	
⊳	GraphicsSettings	PerpetuumSoft.Reporting.
	MasterReport	
	ShowObjectBour	True
۵	Behaviour	
	DoublePass	False
	InvalidRenderLer	ThrowException
۵	Design	
	Name	document 1
4	Grid Settings	
	GridStep	0,5 cm
	ShowGrid	True
	SnapToGrid	True
۵	Misc	
	DataSources	(Collection)
	Delete EmptyPage	False
	Description	
	MetricUnit	Centimeter
	Parameters	(Collection)
	Title	
4	Render	
	StyleSheet	
4	Script	
	CommonScript	
	CompilerVersion	
	CustomLanguage	
	GenerateScript	
	Imports	
	ScriptLanguage	VisualBasicNET
Co Det Allo	mmonScript termines code of th ws you to declare	e main script sections. global script variables a
<b>***</b>	riope	Boom Document

Set property ScriptLanguage = CSharp.



Press "Detail" button on the Insert tab in the group Container.



Click on the template area to add Detail band to the template.

### Step 11

Press button "TextBox" on the Insert tab in the group Text.



# **Step 12**

Click on the Detail band area to add TextBox element inside it. Set the following properties: Text = "ModelKit Suite", Font.Size = 30.



### Step 13

Press "SubReport" button on the Insert tab in the group Container.

Header SubRep T TextBox 🔀 Shape 📒 DataBand SideBySide PageHeader × ChartControl 🗲 Content PageOverlay E GroupBand 🖶 CrossBand T AdvancedText 💋 ZipCode 👩 Widget 💻 Detail New Picture Page 📄 PageFooter BarCode 🧮 WinFormsControl ∑ PivotTable RTF RichText {
 BandContainer Footer Text Page Illustration Container

Click on the template area to add SubReport band to the template.

Set property TemplateName = "ChartTypes".

1 1 1 1 2 1 3 1 4 1 5 1 6 1 7 1 8 1 9 1 10 1 11 1 12 1 13 1 14 1 15 1 16 1 17 1 18 1 19	6 P	properties	<b>-</b> ₽ X
	^ s	ubReport1 SubRepo	rt 💌
detail1:Detail		<b>≣ 2</b> ↓ 🔲 ₽3   !	2
Madal/it Suita		Appearance	
		StyleName	
		⊿ Data	
		Tag	
subReport 1:SubReport		⊿ Design	
ChartTypec		Name	subReport 1
Chartiypes		ShowCaption	True
> •		⊿ Layout	
	E	Location	0; 3 cm
		Size	21; 1 cm
		⊿ Misc	
		Parameters	(Collection)
		Shift	0.cm
		Template Name	Chart Types 📃
		A Navigation	

# Step 14

In the same way add two more SubReport bands. Set property TemplateName to "InstrumentsTypes" and "Shapes".



# Step 15

Save template, close Report Designer.

# Step 16

Right click on the application form and select "View Code" in the context menu to view code.

PERPETUUM software	PETUUM www.perpetuumsoft.com		
Form1.cs [Desig	n]* ×		
🖳 Form1			
	E	View Code	F7
		Lock Controls	43
		Paste	Ctrl+V
	1	Properties	

Add code to display report to the class constructor. Create RenderComplited event handler of the InlineReportSlot object.

```
public Form1()
{
    InitializeComponent();
    inlineReportSlot1.RenderCompleted += new
EventHandler(reportSlot_RenderCompleted);
    }
    private void reportSlot_RenderCompleted(object sender, EventArgs e)
    {
        using (PerpetuumSoft.Reporting.View.PreviewForm previewForm = new
PerpetuumSoft.Reporting.View.PreviewForm(inlineReportSlot1))
        {
            previewForm.WindowState = FormWindowState.Maximized;
            previewForm.ShowDialog(this);
        }
    }
}
```

### **Step 17**

Get back to the application form by clicking "Form1.cs[Design]" tab.

Form1.cs* × Form1.cs [Design]*
🕸 SubReport.Form1
<b>□using</b> System;
using System.Collectior
using System.ComponentA
using System Data:

Add two buttons onto the form (drag and drop "Button" element from the Toolbox onto the form).



Select Button element on the form, edit Text property on the property grid. Set Text = Template for one button and Text = Report for the other one.

Prop	perties	<b>→</b> Ĥ :	×	Pro	perties		Ϋ́
but	ton1 System.Wi	ndows.Forms.Buttc	-	but	t <b>ton2</b> System.Wi	ndows.Forms.B	uttc 🕶
	<b>≵↓ 🔲 </b> 🖋				<b>≵↓</b> 📃 🖋		
	ImageIndex	(none)	^		ImageIndex	(none)	*
	ImageKey	(none)			ImageKey	(none)	
	ImageList	(none)			ImageList	(none)	
	RightToLeft	No			RightToLeft	No	_
C	Text	Template 📋 👻	F	0	Text	Report ]	-)
	TextAlign	MiddleCenter			TextAlign	MiddleCenter	
	TextImageRelati	Overlay			TextImageRelati	Overlay	
	UseMnemonic	True			UseMnemonic	True	
	UseVisualStyleB	True			UseVisualStyleB	True	
	UseWaitCursor	False			UseWaitCursor	False	

Create Click event handlers for the buttons – double click on the Button on the form. Add code launching report generation to the event handler. For example, use the following code:



#### **Step 18**

Click "Start Debugging" on the Visual Studio toolbar in order to start application.



Click the "Report" button in the opened application window.



Generated report is viewed in the Report Viewer.



To edit report template, close Report Viewer and click "Template" on the application form.





Similar sample in the Samples Center is ReportsSub-ReportsThe use of sub-reports.



# **Master Report**

Application provides the ability to select header and contents of the report.

### Step 1

Create new project in Microsoft Visual Studio. Select New\Project from the main menu.



Select Windows Forms Application, set project name – "MasterReport", set directory to save the project to.

New Project					? ×	
Recent Templates		.NET Fra	mework 4 🔹 Sort by: Default	▼ III (III)	Search Installed Templates	
Installed Templates <ul> <li>Visual C#</li> </ul>		<b>c</b> ≉	Windows Forms Application		<b>Type:</b> Visual C# A project for creating an application with a	
Windows Web		<b>*</b>	WPF Application	Visual C#	Windows Forms user interface	
Diffice Cloud		ci Ci	Console Application	Visual C#		
<ul> <li>SharePoint</li> <li>Silverlight</li> </ul>		<b>c</b> ♯	Class Library	Visual C#		
Test WCF		[∞] c♯	WPF Browser Application	Visual C#		
Workflow ▷ Other Languages		C#	Empty Project	Visual C#		
<ul> <li>Other Project Type</li> <li>Database</li> </ul>	25	Ę≇	Windows Service	Visual C#		
Test Projects Online Templates		<b>●</b> C#	WPF Custom Control Library	Visual C#		
		<b>•</b> C [#]	WPF User Control Library	Visual C#		
		<mark>⊞</mark> C [#]	Windows Forms Control Library	Visual C#		
Name:	MasterReport					
Location:	c\		\documents\visual studio 2010\Projects	•	Browse	
Solution name:	MasterReport			<ul> <li>Create directory for solution</li> <li>Add to source control</li> </ul>		
					OK Cancel	

Change the project properties. Select the Project Master Report Properties... item in the main menu.



Select item Target framework\.NET Framework4 from the tab Application.

Application	Configuration: N/A
Build	
Build Events	Assembly name:
	SimpleReport
Debug	Target framework:
Resources	.NET Framework 4 Client Profile
Services	.NET Framework 2.0 .NET Framework 3.0
Settings	.NET Framework 3.5 .NET Framework 3.5 Client Profile
Reference Paths	.NET Framework 4 Client Profile

In the opened window press the "Yes" button.



Target Fran	nework Change
?	Changing the Target Framework requires that the current project be closed and then reopened. Any unsaved changes within the project will be automatically saved. Changing Target Framework may require manual modification of project files in order to build. Are you sure you want to change the Target Framework for this project?
	Yes No Help

Open main form of the application by double click on the "Form1.cs" in the Solution Explorer.



Click on the "ReportManager" on the Toolbox and place this component onto the form. This component is designed to store collections of report templates and data sources.



The component is available in the lower part of the window.



On the property grid, initialize OwnerForm property of the ReportManager by selecting the form it is located on.

Pro	perties	<b>→</b> Ţ	×						
rep	reportManager1 PerpetuumSoft.Repo -								
2↓ 🔲 🗲 🖻									
	DataSources	Objects	*						
4	Design								
	(Name)	reportManager1							
	GenerateMemb	[©] True							
	Modifiers	Private							
4	Misc		Ξ						
	About	(c) 2002-2011 Perp							
	OwnerForm	Form1 🔷 💌							
	Reports	(Collection)	-						

# Step 5

Double click on ReportManager to open ReportManager editor.

Form1					
	Report	:Manager editor Data sources			
			<b>2</b> ↓ □		
	Add	Delete Run Des	igner		
		nlineReportSlot		UK [	Cancel

On the "Reports" tab, click "Add" and select "InlineReportSlot".

Set name of the report in property ReportName = Master1. Click "Run Designer" in order to open template editor - ReportDesigner.



Create new empty template – select item File\New from the main menu.



Select "Blank Report" in the Wizards Gallery and click "OK".

OK

Cancel

PERPETU softw	UM /are	.perpetuumsoft.com					
🖳 Wizaro	ls Gallery						23
New S	aved						
Blank Re	eport						
Standar	d Report						
Pivot ta	ble Report						
			L	oad from file	0	ĸ	Cancel

Click the "Properties" tab of the tool window in the right part of the designer.





Pro	perties	<b>→</b> Å ×						
doc	docum st1 Document							
	]⊉↓ 🖻							
4	Appearance							
⊳	GraphicsSettings	PerpetuumSoft.Reporting.						
	MasterReport							
	ShowObjectBour	True						
۵	Behaviour							
	DoublePass	False						
	InvalidRenderLer	ThrowException						
۵	Design							
	Name	document 1						
4	Grid Settings							
	GridStep	0,5 cm						
	ShowGrid	True						
	SnapToGrid	True						
۵	Misc							
	DataSources	(Collection)						
	Delete EmptyPage	False						
	Description							
	MetricUnit	Centimeter						
	Parameters	(Collection)						
	Title							
4	Render							
	StyleSheet							
4	Script							
	CommonScript							
	CompilerVersion							
	CustomLanguage							
	GenerateScript							
	Imports							
	ScriptLanguage	VisualBasicNET						
CommonScript Determines code of the main script sections. Allows you to declare global script variables a								
<b>***</b>	riope	Boom Document						

Set property ScriptLanguage = CSharp.



Press "Detail" button on the Insert tab in the group Container.



Click on the template area to add Detail band to the template.

### Step 9

Press button "TextBox" on the Insert tab in the group Text.



Click on the Detail band area to add TextBox element inside it. Set property Text = Master Report.

### Step 10

Press "Picture" button on the Insert tab in the group Illustration.



Click on the Detail band area to add Picture element inside Detail.

Select Image property, click button .

Pro	Properties 👻 🗸							
pic	picture1 Picture							
	) ≵↓   🛅 ▫₃   🖻							
۵	Appearance							
	Angle	0						
	Border							
	Fill	[None]	_					
C	Image	(none)						
	ImageAlign	TopLeft						
$\triangleright$	Margins	0; 0; 0; 0 cm						
	SizeMode	Stretch						
	StyleName							
	ToolTip							
4	Data							

#### Select file.

detail1:Datail		
	O	Report
0	Master Report	• • • • • • • • • • • • • • • • • • •
•	0	0

### **Step 11**

Press "Content" button on the Insert tab in the group Container.

File	Home	Insert	Layout Vie	2W						
	🖹 PageHeade	er T	TextBox	*	<u>र</u> Shape	ChartControl	📒 DataBand	E SideBySide	Header	SubReport
New	🖹 PageOverla	y T	AdvancedText	Picture	✓ZipCode	🐼 Widget	E GroupBand	🖶 CrossBand	💻 Detail	Content
Page	🖹 PageFooter	RTF	RichText		BarCode	WinFormsControl	{🔳 BandContainer		Footer	∑ PivotTabh§
	Page		Text		Illust	ration		Containe	er	

Click on the template area to add this band to the template.



## Step 12

Save template, close Report Designer.

### **Step 13**

Add one more template in the ReportManager editor. Open Report Designer. Set property ReportName = Master2. Open Report Designer.



	ß
	Report Name
Add Delete Run Designer	OK Cancel

Create a template similar to the first one, but without a picture. Report template should look as follows:



Save template, close Report Designer.

# Step 15

Add one more template in the ReportManager editor. Set property ReportName = Shapes.

### **Step 16**

Open Report Designer. Open report properties. Set property MasterReport = Master.

Pro	perties	<b>▼</b> ₽	×
document1 Document			
	]⊉↓   🖻		
۵	Appearance		
⊳	GraphicsSettings	PerpetuumSoft.Reporting	DO
	MasterReport	Master	-
	ShowObjectBounds	True	-

Add Detail bands to the template, add Shape and TextBox elements inside Detail bands. Save template, close Report Designer.

### **Step 17**

Add one more template in the ReportManager editor. Open Report Designer. Set property Name = Instruments. Open report properties. Set property MasterReport = Master. Add Detail bands to the template, add TextBox and Widget elements inside Detail bands. Click on the Widget element and open Instrumentation ModelKit, design widget. Save template, close Report Designer.



### **Step 18**

Right click on the application form and select "View Code" in the context menu to view code.

PEF	RPETUUM www.perpetuumsoft.com software					
ſ	Form1.cs [Desig	jn]* ×				
	🖳 Form1				• •	
			F	View Code	► F7	
			۵	Lock Controls	45	
			Ē.	Paste	Ct	rl+V
			<b>P</b>	Properties		
	L			J		⁶

Add code to display report to the class constructor. Create RenderComplited event handler of the InlineReportSlot object.

```
public Form1()
        {
            InitializeComponent();
            inlineReportSlot3.RenderCompleted += new
EventHandler(reportSlot RenderCompleted);
            inlineReportSlot4.RenderCompleted += new
EventHandler(reportSlot RenderCompleted);
        }
        private void reportSlot RenderCompleted(object sender, EventArgs e)
        {
            using (PerpetuumSoft.Reporting.View.PreviewForm previewForm = new
PerpetuumSoft.Reporting.View.PreviewForm((PerpetuumSoft.Reporting.Components.
IReportSource) sender) )
            {
                previewForm.WindowState = FormWindowState.Maximized;
                previewForm.ShowDialog(this);
            }
        }
```

### **Step 19**

Get back to the application form by clicking "Form1.cs[Design]" tab.

Form1.cs* ×	[Form1.cs [Design]*
😤 Master Rep	oort.Form1
⊡using	System;
using	System.Collectior
using	System.ComponentN
using	Suctom Data:

### Step 20

Add two Label elements onto the form (drag and drop "Label" element from the Toolbox onto the form).



Select Label on the form, edit Text property on the property grid. Set Text = Caption for one label and Text = Report for the second.

### Step 21

Add two ComboBox elements onto the form (drag and drop "ComboBox" element from the Toolbox onto the form).



1	Toolbox	(	<b>*</b> -Þ	X	
Da	> Olap ModelKit				
ta S	Chart ModelKit				
	Instrumentation ModelKit				
ß	▷ Repo	ort Sharp-Shooter			
×	⊳ All W	/indows Forms			
0	⊿ Com	mon Controls			
Š	1	Pointer			
	ab	Button			
		CheckBox			
		CheckedListBox			
	= -	ComboBox			
		DateTimePicker	15		
	Α	Label			
	<u>A</u>	LinkLabel			
	E ListBox				
	End of the second secon				
	#- MaskedTextBox				
	MonthCalendar				
	405	NotifyIcon			
	1 0	NumericUpDown		≡	
	~	PictureBox			
	🚥 ProgressBar				
	RadioButton				
	RichTextBox				
	abl TextBox				
	🖕 ToolTip				
	8	TreeView			
		WebBrowser			

Place elements so that comboBox1 is located next to the "Caption" label and comboBox2 is located next to the "Report" label.

- Form1	
Caption	•
Report	•

View code and add class constructor to fill lists.

```
public Form1()
{
    InitializeComponent();
    comboBox1.Items.Add("With logo");
    comboBox1.Items.Add("Without logo");
    comboBox2.Items.Add("Shapes");
    comboBox2.Items.Add("Instruments");
    inlineReportSlot3.RenderCompleted += new
EventHandler(reportSlot_RenderCompleted);
    inlineReportSlot4.RenderCompleted += new
EventHandler(reportSlot_RenderCompleted);
}
```

# Step 22

Add three buttons onto the form (drag and drop "Button" element from the Toolbox onto the form).



Select the second Button element on the form, edit its Text property. For the first and second one, set Text = Template; for the third, set Text = Report.



Create Click event handlers – double click on the Button element on the form. Add code launching report generation. Depending on the selected values in ComboBox elements, Template buttons will open different templates in the Report Designer. Final report will be generated depending on the selected values.

```
private void button1 Click(object sender, EventArgs e)
        {
            if (comboBox1.SelectedIndex == 0)
inlineReportSlot1.DesignTemplate();
           if (comboBox1.SelectedIndex == 1)
inlineReportSlot2.DesignTemplate();
        }
        private void button2 Click(object sender, EventArgs e)
        {
            if (comboBox2.SelectedIndex == 0)
inlineReportSlot3.DesignTemplate();
           if (comboBox2.SelectedIndex == 1)
inlineReportSlot4.DesignTemplate();
        }
        private void button3 Click(object sender, EventArgs e)
        {
            if (comboBox1.SelectedIndex == 0)
            {
                inlineReportSlot1.ReportName = "Master";
                inlineReportSlot2.ReportName = "Master2";
            }
            else
            {
                inlineReportSlot1.ReportName = "Master1";
                inlineReportSlot2.ReportName = "Master";
            }
            if (comboBox2.SelectedIndex == 0) inlineReportSlot3.Prepare();
            if (comboBox2.SelectedIndex == 1) inlineReportSlot4.Prepare();
        }
```

Click "Start Debugging" on the Visual Studio toolbar in order to start application.



Application form runs.

- Form1		
Caption	With logo	✓ Template
Report	Instruments	▼ Template
		Report



Click "Template" button and you will open Report Designer with a template selected in the corresponding ComboBox.

Click "Report" button and the final report will be generated; and document header will be generated by the template selected in the Caption section, and the document itself will be generated by the template selected in the Report section.



Similar sample in the Samples Center is Reports\Master Report.


## **Side by Side Report**

Template of a report containing a table – first column contains numbers from 1 to 20, and the second one contains numbers from 1 to 10.

#### Step 1

Create new project in Microsoft Visual Studio. Select New\Project from the main menu.



Select Windows Forms Application, set project name – "SideBySide", set directory to save the project to.

New Project					2 ×
Recent Templates		.NET Fra	mework 4 🔹 Sort by: Default	■	Search Installed Templates
Installed Templates  Visual C#		_ <b>c</b> #	Windows Forms Application	Visual C#	Type: Visual C# A project for creating an application with a
Windows Web		<b>*</b>	WPF Application	Visual C#	Windows Forms user interface
Office Cloud Proofing		c:\	Console Application	Visual C#	
<ul> <li>Keporting</li> <li>SharePoint</li> <li>Silverlight</li> </ul>		<b>c</b> ♯	Class Library	Visual C#	
Test WCF		[∞] c≇	WPF Browser Application	Visual C#	
Workflow ▷ Other Languages		C#	Empty Project	Visual C#	
<ul> <li>Other Project Type</li> <li>Database</li> <li>Test Device to</li> </ul>	es	<b>_</b> c [#]	Windows Service	Visual C#	
Online Templates		•C	WPF Custom Control Library	Visual C#	
		<b>€C</b> #	WPF User Control Library	Visual C#	
		±C‡	Windows Forms Control Library	Visual C#	
Name:	SideBySide				
Location:	c/		\documents\visual studio 2010\Projects	•	Browse
Solution name:	SideBySide				<ul> <li>Create directory for solution</li> <li>Add to source control</li> </ul>
					OK Cancel

Change the project properties. Select the Project SideBySide Properties... item in the main menu.

👓 Sia	deBySi	de - Mi	crosot	ft Vi	sual Stu	dio (Adm	inistrato	r)		
File	Edit	View	Proje	ect	Build	Debug	Team	Data	Format	Tools
File 🛺 拱 📮 Data Sources 🞌 Toolbox	Edit  Edit  Form1	View  View  Control  Control	Proje	Act Act Act Act Act Act Act Sh Act	Build Id Wind Id User ( Id Comp Id Class, Id New I Id Existir clude Fro ow All F Id Refero	Debug ows Form Control oonent item ig Item om Projec iles ence	Team h	Data	Format Shift+A Ctrl+Shi Shift+A	Tools lt+C ift+A lt+A
			4y	Ac Se Re Sic	t as Star fresh Pro leBySide	tUp Project oject Too Propertio	ice ct Ibox Iten es	ns Do		

Select item Target framework\.NET Framework4 from the tab Application.

Application	Configuration: N/A						
Build							
Build Events	Assembly name:						
	SimpleReport						
Debug	Target framework:						
Resources	.NET Framework 4 Client Profile						
Services	.NET Framework 2.0 .NET Framework 3.0						
Settings	.NET Framework 3.5 .NET Framework 3.5 Client Profile						
Reference Paths	.NET Framework 4 Client Profile						

In the opened window press the "Yes" button.



Target Fran	nework Change
?	Changing the Target Framework requires that the current project be closed and then reopened. Any unsaved changes within the project will be automatically saved. Changing Target Framework may require manual modification of project files in order to build. Are you sure you want to change the Target Framework for this project?
	Yes No Help

Open main form of the application by double click on the "Form1.cs" in the Solution Explorer.



Click on the "ReportManager" on the Toolbox and place this component onto the form. This component is designed to store collections of report templates and data sources.



The component is available in the lower part of the window.



On the property grid, initialize OwnerForm property of the ReportManager by selecting the form it is located on.

Pro	perties	<b>→</b> Ţ	×				
rep	reportManager1 PerpetuumSoft.Repo -						
•	<b>≵</b> ↓ 🔲 🖋						
	DataSources	Objects	*				
4	Design						
	(Name)	reportManager1					
	GenerateMemb	[©] True					
	Modifiers	Private					
4	Misc		Ξ				
	About	(c) 2002-2011 Perp					
	OwnerForm	Form1 🔷 💌					
	Reports	(Collection)	-				

## Step 5

Double click on ReportManager to open ReportManager editor.

Form1.cs	[Design]* ×						
P. Fo	xm1		ReportManager edit eports Data sources Data sources FileReportSlot UriReportSlot UriReportSlot	r te Run Designer		OK Cancel	
Di reș	D portManager1	)	Urikeportsiot				

On the "Reports" tab, click "Add" and select "InlineReportSlot".

## Step 6

Ć

Set name of the report in the property ReportName – "SideBySide".

Click "Run Designer" in order to open template editor – Report Designer.



Add

Delete

Create new empty template – select item File\New from the main menu.

Run Designer



Select "Blank Report" in the Wizards Gallery and click "OK".

OK

Cancel

•	PERPETUUM software	www.perpetuumsoft.com			
	📴 Wizards Gall	ery			
	New Saved				
	Blank Report				
	Standard Repo	ort			
	Pivot table Re	port			
			Load from file	ОК	Cancel

23

## Step 8

Click the "Properties" tab of the tool window in the right part of the designer.



You	will	see	properties	of the	edited	template	on	the	"Properties"	tab
_										

Pro	perties	<b>→</b> ₽ X						
doo	um gt1 Docum	ent 🔹						
۵	Appearance							
⊳	GraphicsSettings	PerpetuumSoft.Reporting.						
	MasterReport							
	ShowObjectBour	True						
۵	Behaviour							
	DoublePass	False						
	InvalidRenderLer	ThrowException						
۵	Design							
	Name	document1						
۵	Grid Settings							
	GridStep	0,5 cm						
	ShowGrid	True						
	SnapToGrid	True						
۵	Misc							
	DataSources	(Collection)						
	Delete EmptyPage	False						
	Description							
	MetricUnit	Centimeter						
	Parameters	(Collection)						
	Title							
4	Render							
	StyleSheet							
4	Script							
	CommonScript							
	CompilerVersion							
	CustomLanguage							
	GenerateScript							
	Imports							
	ScriptLanguage	Visual Basic NE I						
Co	mmonCorint							
Det	termines code of the ws you to declare	e main script sections. global script variables a						
7	Prope 🚞 Dat	aSo 🔄 Document						

Set property ScriptLanguage = CSharp.



Press "SideBySide" button on the Insert tab in the group Container.



Click on the template area to add this band to the template

#### Step 10

Press "DataBand" button on the Insert tab in the group Container.

File	Home	Insert	Layout Vie	ew					_	
	PageHeader	T	TextBox	*	🔀 Shape	ChartControl	E DataBand	SideBySide	Header	SubReport
New	🖹 PageOverlay	۲ <mark>۲</mark>	AdvancedText	Picture	ZipCode	🛃 Widget	GroupBand	🖶 CrossBand	💻 Detail	🗲 Content
Page [	PageFooter	RTF	RichText		BarCode	WinFormsControl	{ BandContainer		- Footer	PivotTable
	Page		Text		Illust	ration		Containe	er	

Click on the SideBySide band area to add DataBand inside SideBySide band.

#### Set property InstanceCount = 20.

Properties - 4 X
🔺 dataBand1 DataBand 🔍
⊿ Appearance
StyleName
ToolTip
⊿ Data
DataSource
FilterExpression
InstanceCount 20
Sort (Collection)
Tag
Totals (Collection)

## Step 11

Press "Detail" button on the Insert tab in the group Container.

File Home In:	sert Layout Vie	ew	
New PageFooter	T TextBox T AdvancedText RT RichText	Image: Shape       Image: ChartControl         Picture       Image: ZipCode       Image: WinFormsControl         Image: BarCode       Image: WinFormsControl	Image: Side By Side     Image: Side By Side     Image: Band Side By Side     Image: Sid

Click on the DataBand area to add Detail band inside DataBand.

#### **Step 12**

Press button "TextBox" on the Insert tab in the group Text.



Click on the Detail band area to add TextBox element inside Detail band.

Select Border property, click button 🗔 to open Border Editor.

Set borders of the TextBox element.

📴 Border Editor	×
Line drawing	Line type
	None
	Color Width 1.0

Change TextBox size. Set property Value = dataBand1.LineNumber.

e	textB	ox1						Bin	ndin	g	Valu	Je					•	fz	d	atal	Ban	d1.	Lir	1eN1	umb	er		)														
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er	d of	dat	aBa	and1																																						

#### **Step 13**

Add one more DataBand inside sideBySide1 band. Set InstanceCount = 10.

#### Step 14

Add Detail band inside dataBand2. Add TextBox element so that it is located on the right of the TextBox from the dataBand1, set Border property. Set Value = dataBand2.LineNumber. Change element size.

Report template should look as follows:

sideBySide1:SideBySide	
dataBand1:DataBand	
detail1:Detail	
<databand1.linenumber></databand1.linenumber>	
end of dataBand1	
dataBand2:DataBand	
detail2:Detail	
	<databand2.linenumber></databand2.linenumber>
end of dataBand2	

Save template, close Report Designer.

#### Step 16

Right click on the application form and select "View Code" in the context menu to view code.

Form1.cs [Design]* ×			
🖳 Form1		-	
	Ŧ	View Code	F7
4	8	Lock Controls	
C.	2	Paste	Ctrl+V
	7	Properties	

Add code to display report to the class constructor. Create RenderComplited event handler of the InlineReportSlot object.

```
public Form1()
{
    InitializeComponent();
    inlineReportSlot1.RenderCompleted += new
EventHandler(reportSlot_RenderCompleted);
    private void reportSlot_RenderCompleted(object sender, EventArgs e)
    {
        using (PerpetuumSoft.Reporting.View.PreviewForm previewForm = new
PerpetuumSoft.Reporting.View.PreviewForm(inlineReportSlot1))
        {
            previewForm.WindowState = FormWindowState.Maximized;
            previewForm.ShowDialog(this);
        }
    }
}
```



Get back to the application form by clicking "Form1.cs[Design]" tab.



Add two buttons onto the form (drag and drop "Button" element from the Toolbox onto the form).



Select Button element on the form, edit Text property on the property grid. Set Text = Template for one button and Text = Report for the other one.

Prop	perties	<b>→</b> 中	×	Pro	perties		▼ ₽ ×
but	t <b>ton1</b> System.Wi	ndows.Forms.Butto	-	but	t <b>ton2</b> System.Wi	ndows.Forms.	Buttc 🕶
•	<b>≵</b> ↓ 🔲 🥖				<b>≵</b> ↓ 📃 🖋		
	ImageIndex	(none)	~		ImageIndex	(none)	*
	ImageKey	(none)			ImageKey	(none)	
	ImageList	(none)			ImageList	(none)	
	RightToLeft	No			RightToLeft	No	_
C	Text	Template 📋 💌	F	0	Text	Report ]	-)
	TextAlign	MiddleCenter			TextAlign	MiddleCenter	
	TextImageRelati	Overlay			TextImageRelati	Overlay	
	UseMnemonic	True			UseMnemonic	True	
	UseVisualStyleB	True			UseVisualStyleB	True	
	UseWaitCursor	False			UseWaitCursor	False	

Create Click event handlers for the buttons – double click on the Button on the form. Add code launching report generation to the event handler. For example, use the following code:

private void button1 Click(object sender, EventArgs e) { inlineReportSlot1.DesignTemplate(); } private void button2_Click(object sender, EventArgs e)





Click "Start Debugging" on the Visual Studio toolbar in order to start application.



Click the "Report" button in the opened application window.



Generated report is viewed in the Report Viewer.

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-	3		_
	4	2	
	5	3	
	6	3	
	7	4	
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-	12	6	
	13	7	
	14	1	
	15	8	
	16		_
-	18	9	
-	19		-
F	20	- 10	

To edit report template, close Report Viewer and click "Template" on the application form.



Similar application sample is located in the following folder "\Perpetuum Software\Net ModelKit Suite\Samples\Report Sharp-Shooter\CSharp\SideBySideUsing.rst".



# Using MS Charts in Report Sharp-Shooter 5.3+

In this example we will illustrate how to use MS Charts in Report Sharp Shooter.

#### Step 1

Create a new project in Microsoft Visual Studio. Select New\Project from the main menu.

File	Edit View Debug Team Dat	a Tools	Test	Wind	dow Help		
	New		•	67	Project		Ctrl+Shift+N
	Open		•	۵	Web Site		Shift+Alt+N
	Close			5	Team Project		
Ē	Close Solution			<b>*</b>	File		Ctrl+N
	Save Selected Items	Ctrl+S			Project From Existin	ig Code	
	Save Selected Items As			-			
Ø	Save All	Ctrl+Shift	+S		1		
	Export Template				Get Started	Guidance	and Resources
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	Page Setup						
8	Print	Ctrl+P			Protect Restriction In the protection of the State State State State In the State State State State State State State State In the State State State State State State State State In the State State State State State State State State In the State State State State State State State State State In the State Stat	(a) (ga (1))	📰 What's Nev
	Recent Files		•		The second secon		Learn about 1
	Recent Projects and Solutions		•		1111	5	Visual Studio
	Exit	Alt+F4					What's New i What's New i

Select Windows Forms Application, set name of the project – "MSChartSamples" and set directory to save the project to.



Change the project properties. Select the Project\MSChartSamples Properties... item in the main menu.



Select the Target framework\.NET Framework4 item in the Application tab.

PE	RPETUUM www software	w.perpetuumsoft.com	
	Application	Configuration: N/A 🔻 Pla	atfo
	Build Build Events	Assembly name: SimpleReport	_
	Debug	Target framework: .NET Framework 4 Client Profile	-
	Services	.NET Framework 2.0 .NET Framework 3.0 .NET Framework 3.5	1
	Settings	.NET Framework 3.5 Client Profile	
	Reference Paths	.NET Framework 4 Client Profile	

Press the "Yes" button in the opened window.

Target Fran	nework Change
2	Changing the Target Framework requires that the current project be closed and then reopened. Any unsaved changes within the project will be automatically saved. Changing Target Framework may require manual modification of project files in order to build. Are you sure you want to change the Target Framework for this project?
	Yes No Help

#### Step 3

Open main form of the application in the editor by double click on "Form1.cs" in the Solution Explorer.



Click "DataSet" element in the Toolbox and place it onto the form.





Select "Untyped dataset", click "OK".

Add Dataset
Choose a typed or untyped dataset to add to the designer.
Typed dataset
Name:
Creates an instance of a typed dataset class already in your project. Choose this option to work with a dataset that has a built-in schema. See Help for details on generating typed datasets.
Output dataset
Creates an instance of an untyped dataset class of type System.Data.DataSet. Choose this option when you want a dataset with no schema.
OK Cancel

The component is displayed in the lower part of the window.



## Step 4

Select dataSet1 component in the form editor. On the property grid, select "Tables" property, press button in order to open Tables Collection Editor.



Press button "Add" in order to add a table. Set Name = tempOfSalesTable, TableName = TempOfSales.

Tables Collection Editor				\$	X
<u>M</u> embers:	Ţ	Ten	npOfSales <u>P</u> roperties:		
0 TempOfSales		⊿	Data		
		$\triangleright$	(ApplicationSetting:		
			Columns	(Collection)	
			Constraints	(Collection)	
	_		DisplayExpression		
			MinimumCapacity	50	
			Namespace		=
			Prefix		
			PrimaryKey	DataColumn[]	
			TableName	TempOfSales	
		۵	Design		
			(Name)	tempOfSalesTable	
	ĸ		GenerateMember	True	
	·		Modifiers	Private	
Add		۵	Misc		-
				Close	•

## Step 5

Add the following columns: Year and Value are of the Int32 type.

Columns Collection Editor				?	-2
Members:		Yea	r <u>P</u> roperties:		
0 Year		۵	Data		
1 Value		$\triangleright$	(ApplicationSetting:		
			AllowDBNull	True	
			AutoIncrement	False	
			AutoIncrementSeed	0	
			AutoIncrementStep	1	:
			Caption	Year	
			ColumnName	Year	
			DataType	System.Int32	
			DateTimeMode	UnspecifiedLocal	_
			DefaultValue	<dbnull></dbnull>	
			Expression		
	X		MaxLength	-1	
			Namespace		
Add			Prefix		

Right click on the form and select "View Code" in the context menu in order to view code.

Form1.cs [Design]* ×			
🖳 Form1			
	E	View Code	F7
	8	Lock Controls	
	ß	Paste	Ctrl+V
	3	Properties	
	0		

Fill the DataSource with random information for a period from 2000 till current year-1. Add the FillDataSource function for this purpose:

```
public Form1()
{
    InitializeComponent();
```

```
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     software
    FillDataSource();
  }
  private void FillDataSource()
  {
    // Let's add some data
    Random random = new Random();
    for (int year = 2000; year < DateTime.Now.Year; year++)</pre>
    {
      DataRow row = tempOfSalesTable.NewRow();
      row["Year"] = year;
      row["Value"] = random.Next(1000);
      tempOfSalesTable.Rows.Add(row);
    }
  }
```

Get back to the application form by clicking the "Form1.cs[Design]" tab.



Click "ReportManager" element on the Toolbox and place it onto the form. This element is designed to store collections of report templates and data sources. Then click "MSChartSupport" element on the Toolbox and place it onto the form.



Components are displayed in the lower part of the window.



#### Step 8

Double click on the ReportManager component and open ReportManager editor.

Form1			
Report Data sour	editor		
		2↓ □	
Add	Delete Run Design	er	
			OK Cancel

Go to "Data sources" tab, press "Add", set name of the data source – "tempOfSales", select data source value – "tempOfSalesTable".

E	dit obj	ect name
	Name	tempOfSales
	Value	TempOfSalesTable   DataSource only
		OK Cancel

### Step 9

Go to "Reports" tab of the ReportManager editor, press "Add" and select "InlineReportSlot".

Reports Data sources	ReportManager editor		
Add Delete Run Designer FileReportSlot NineReportSlot OK Cancel	Reports Data sources		
Add Delete Run Designer FileReportSlot OK Cancel			
Add Delete Run Designer FileReportSlot OK Cancel			
Add Delete Run Designer FileReportSlot OK Cancel			
Add       Delete       Run Designer         FileReportSlot       OK       Cancel			
Add       Delete       Run Designer         FileReportSlot       OK       Cancel			
Add Delete Run Designer FileReportSlot InlineReportSlot			
Add Delete Run Designer FileReportSlot OK Cancel			
Add Delete Run Designer FileReportSlot OK Cancel			
Add Delete Run Designer FileReportSlot OK Cancel			
Add Delete Run Designer FileReportSlot OK Cancel			
Add Delete Run Designer FileReportSlot OK Cancel			
Add Delete Run Designer FileReportSlot OK Cancel			
Add Delete Run Designer FileReportSlot OK Cancel			
Add Delete Run Designer FileReportSlot OK Cancel			
Add Delete Run Designer FileReportSlot OK Cancel			
FileReportSlot OK Cancel	Add Delete Run Designer		
InlineReportSlot	FileReportSlot	OK	Cancel
	InlineReportSlot		

Set name of the report to "MsCharts" in the ReportName property.

Click "Run Designer" in order to open template editor – Report Designer.



Create new empty template – select File\New in the main menu.

50	ō, 🗈 📒		rt Sharp-Sh	oote	r Designer
File	Home	Insert	Layout	Vi	ew
	New		Ctrl+N		
F	Open		Ctrl+O	15	Font
H	Save		Ctrl+S		
B	Save As	Ctr	l+Shift+S		
	Select Lang	uage			
	🖹 Se	ttings 🗙	Exit Desig	ner	

Select "Blank Report" in the Wizards Gallery and click "OK".

0	🖳 Wizards Gallery	23
	New Saved	
	Blank Report	
	Standard Report	
	Pivot table Report	
	Load from file OK Cance	

Click the "Properties" tab of the tool window in the right part of the designer.

File Harry Jacob Lauret Mary
Home Insert Layout View
Paste Objects       B       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       I       <
Name Binding file
1   1   2   3   4   5   6   7   8   9   10   11   12   13   14   15   16   17   18   19 🕎 DataSources 🗸 🗸
- Bands Data Sources Parameters
E Employee S Special Fields
page1

You will see properties of the edited template on the "Properties" tab

Pro	perties	<b>→</b> ₽ X
doo	cument1 Docum	ient 🔽 🔽
	] <b>2</b> ↓ 📼	6
6	Appearance	
⊳	GraphicsSettings	PerpetuumSoft.Reporting
	MasterReport	
	ShowObjectBou	True
۵	Behaviour	
L	DoublePass	False
	InvalidRenderLe	ThrowException
۵	Design	
	Name	document1
۵	Grid Settings	
L	GridStep	0.5 cm
L	ShowGrid	True
	SnapToGrid	True
۵	Misc	
L	DataSources	(Collection)
L	Delete EmptyPag	False
L	Description	
L	MetricUnit	Centimeter
L	Parameters	(Collection)
	Title	
⊿	Render	
	StyleSheet	
۵	Script	
L	CommonScript	
L	CompilerVersion	
L	CustomLanguag	
L	GenerateScript	
L	Imports	
	ScriptLanguage	VisualBasicNET
Со	mmonScript	
De	termines code of t	he main script sections.
Allo	ws you to declare	global script variables
2	Prop 🔚 Dat	aSo 🔚 Document

Set property ScriptLanguage = CSharp.



#### Step 13

Press "MicrosoftChart" button on the Insert tab in the Illustration Container.



Select the "tempOfSales" as the DataSource property value.



#### Step 15

Open the ChartAreas collection and add a Chart Area, keep all the parameters by default.



Open Series collection and add a series. Select "Year" as XValueMember, "Value" as YValueMember, set Name = Temp of sales. The ChartArea is set automatically as "ChartArea1" after the editor is closed.



Open the Titles collection, add a new Title, set Text = Temp of sales.

Title-Title1			Appearance       (Text)       (Misible)       BackColor       BackGradientStyle       BackHatchStyle       BackImage       BackImage       BackImage       BackImageTransparer	Temp of sale True None None TopLeft	13	
		4	Appearance (Text) (Visible) BackColor BackGradientStyle BackHatchStyle BackImage BackImageAlignment BackImageTransparei	Temp of sale True None None	is)	
			(Text) (Visible) BackColor BackGradientStyle BackHatchStyle BackImage BackImageAlignment BackImageTransparer	Temp of sale True None None TopLeft		
			(Visible) BackColor BackGradientStyle BackHatchStyle BackImage BackImageAlignment BackImageTransparer	True None None TopLeft		
			BackColor BackGradientStyle BackHatchStyle BackImage BackImageAlignment BackImageTransparer	None None TopLeft		
	7		BackGradientStyle BackHatchStyle BackImage BackImageAlignment BackImageTransparer	None None		
			BackHatchStyle BackImage BackImageAlignment BackImageTransparer	None TopLeft		
			BackImage BackImageAlignment BackImageTransparer	TopLeft		
			BackImageAlignment BackImageTransparer	TopLeft		
			BackImageTransparer			
			BackImageWrapMode	Tile		
			BackSecondaryColor			
			BorderColor			
			BorderDashStyle	Solid		
			BorderWidth	1		
		$\triangleright$	Font	Microsoft Sans	Serif, 8pt	
			ForeColor	Black		
		⊳	Position	Auto		
			ShadowColor	128, 0, 0,	0	
			ShadowOffset	0		
			TextOrientation	Auto		
			TextStyle	Default		
		۵	Docking			

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Select the "FrameThin1" as the BorderSkin.SkinStyle.

Pro	perties			•	Ţ	×
mic	rosoftChart1 Micro	soft	Chart			•
	)⊉↓   🛅 ▫²   🖻	1				
	BackImageTranspa					*
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⊿	BorderSkin	Рего	etuumSoft.Re	eport	ing	
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	BackColor		Gray			
	BackGradientS		None			
	BackHatchStyle		None			
	BackImage					
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	BackImageTrar					
	BackImageWra	Tile				
	BackSecondan					
	BorderColor		Black			-
	BorderDashStyl	Not	Set			=
	BorderWidth	1				
	PageColor		White			
	Palette	Brigh	ntPastel			
	PaletteCustomColor					
	RightToLeft	No				
	StyleName					
	ToolTip					

Save the template and close the Report Designer.

# Step 20

Add ReportViewer onto the form.



Set the Source to inlineReportSlot1.





In order to display the report on the startup, add the form's Load event handler:

```
private void Form1_Load(object sender, EventArgs e)
{
    inlineReportSlot1.Prepare();
}
```

## Step 22

Run the application.



## **Configuring charts in Report Sharp-Shooter scripts.**

There is some information to know in order to successfully work with Microsoft Charts using Report Sharp-Shooter scripts:

The implementation of Charts in Report Sharp-Shooter isn't our own implementation. It uses standard charts in the System.Windows.Forms.DataVizualization.Charting.Chart library. A "wrapper" for all used classes is implemented for support integration. It allows the user to use Charts inside Report Sharp-Shooter. Most of the wrapper-classes are inherited from the standard classes and they add interfaces to Report Sharp-Shooter. Therefore there are some requirements in order to successfully use the Charts.

# Use the PerpetuumSoft.Reporting.MSChart.ChartModel namespace with the same type names instead of the System.Windows.Forms.DataVisualization.Charting namespace.



*Try to avoid the use of functions used to add objects into collections that automatically create an object. In this case the object of a standard type will be created instead of the wrapped object.* 

It is not recommended to setup a chart using scripts if there is a possibility to do this without scripts.

#### An example of configuring a chart using scripts.

In order to configure the chart using scripts as described above, use the following code. For example, add the second chart to your report template and in the GenerateScript of the chart you will have:

```
microsoftChart2.DataSource = "tempOfSales";
PerpetuumSoft.Reporting.MSChart.ChartModel.ChartArea chartArea = new
PerpetuumSoft.Reporting.MSChart.ChartModel.ChartArea();
chartArea.Name = "ChartArea1";
microsoftChart2.ChartAreas.Add(chartArea);
PerpetuumSoft.Reporting.MSChart.ChartModel.Series series = new
PerpetuumSoft.Reporting.MSChart.ChartModel.Series();
series.Name = "One more series";
series.XValueMember = "Year";
series.YValueMembers = "Value";
microsoftChart2.Series.Add(series);
PerpetuumSoft.Reporting.MSChart.ChartModel.Title title = new
PerpetuumSoft.Reporting.MSChart.ChartModel.Title ();
title.Text = "Temp of sales";
microsoftChart2.Titles.Add(title);
```

```
microsoftChart2.BorderSkin.SkinStyle =
System.Windows.Forms.DataVisualization.Charting.BorderSkinStyle.FrameThin1;
```