Part 2 - Repeat Blocks

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Intro

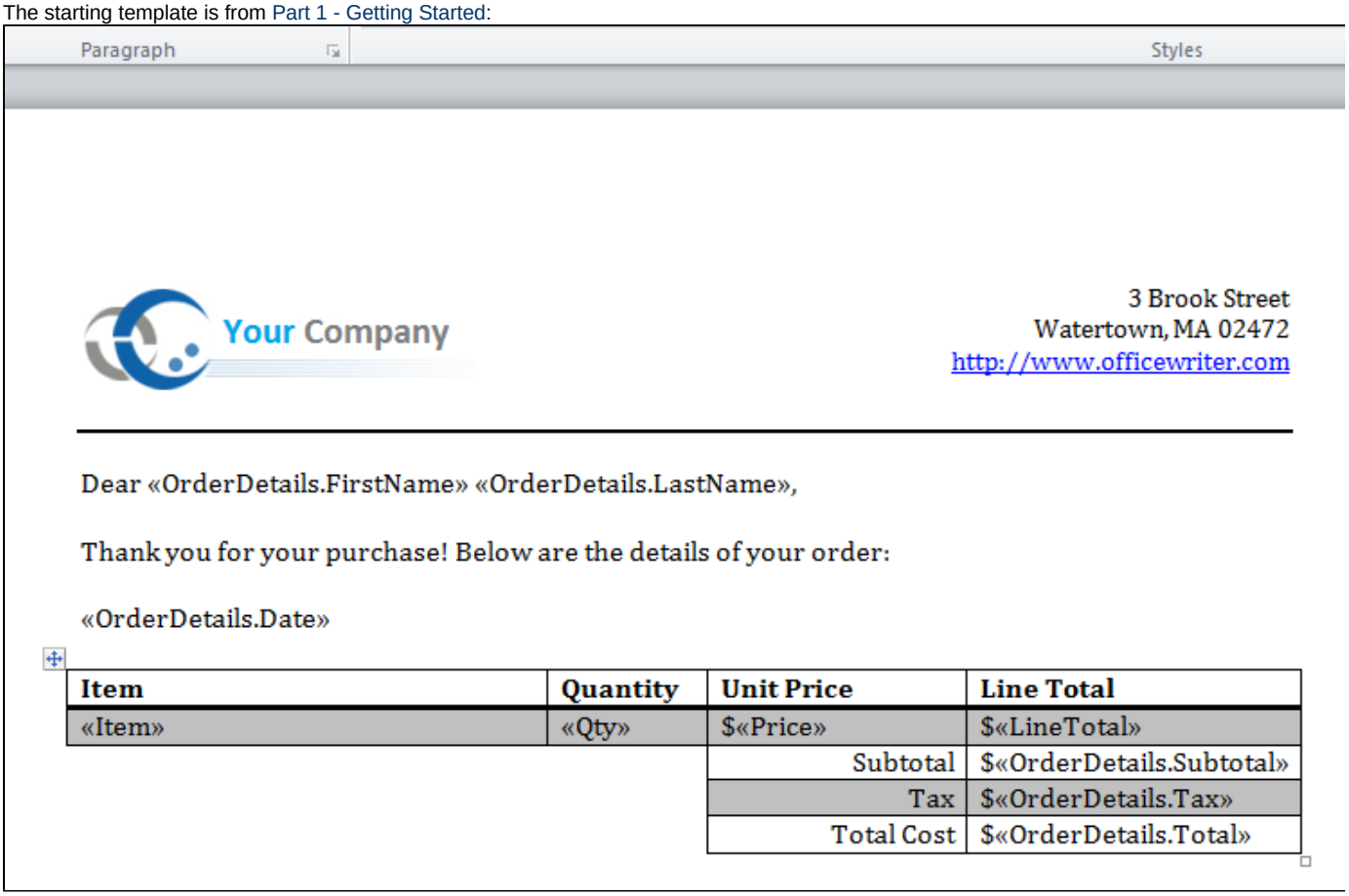
This is Part 2 of a 2-part tutorial series for the Sales Invoice scenario. It is recommended that you complete Part 1 - Getting Started befo re starting this section.

Following the Sample
There is a downloadable WordWriter_Basic_Tutorials.zip with completed templates and code. The completed example of the template is available under *templates/Part2_Invoice_Template.xlsx*. The code for this part of the tutorial can be found in *Part2.aspx.cs*.

This part focuses on adding repeating data to an order summary. There are slight modifications to the template and code from Part 1.

Changing the Template

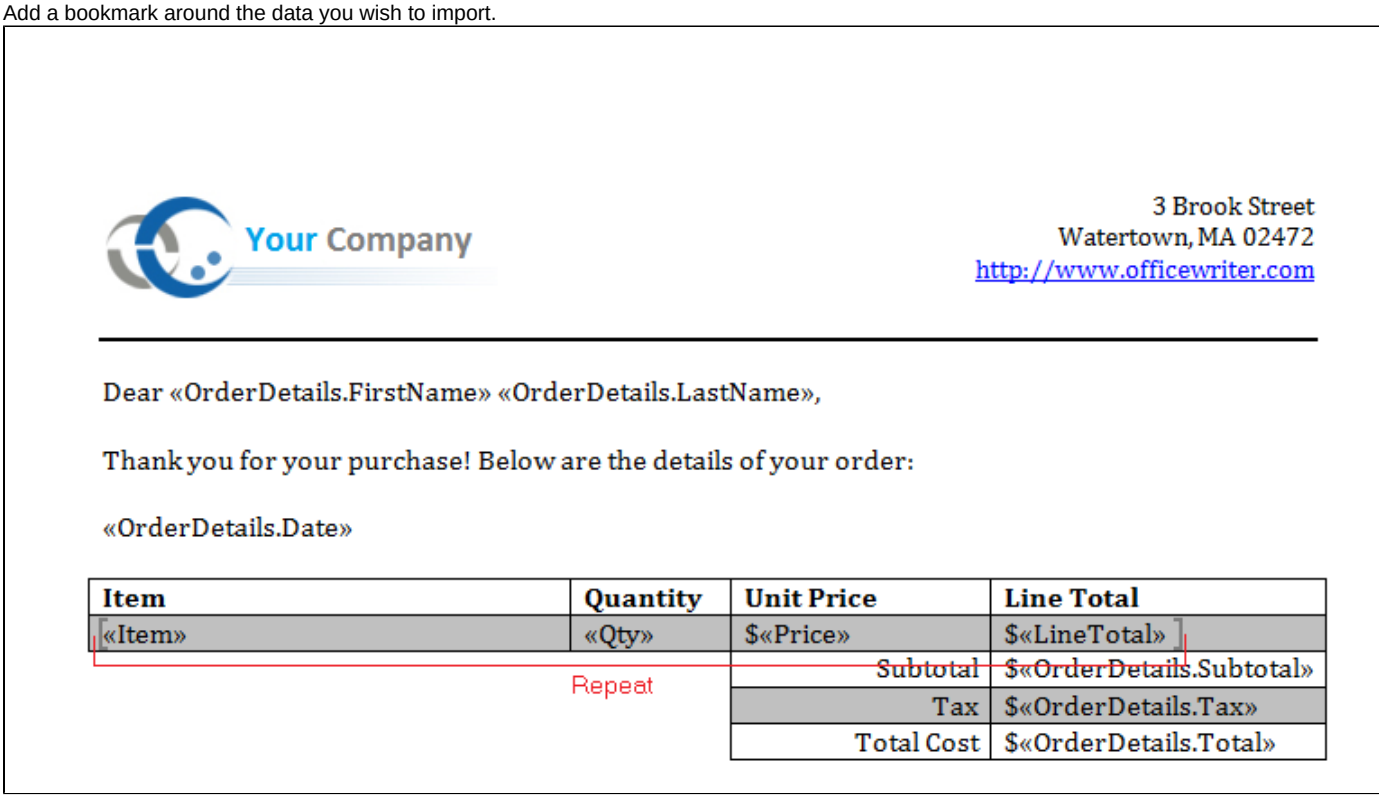
The starting template is from Part 1 - Getting Started:



Repeat blocks are used to import multiple rows. A repeat block is a fragment in the template document - defined by a Word bookmark - that contains merge fields and that will be repeated for each row in a data source. To import multiple rows from a single data source, create a repeat block in the template and, in the WordWriter code, call SetRepeatBlock to bind the repeat block to a data source.

In this sample, the repeat block is added to the order info merge fields. This bookmark is called "Repeat."

Add a bookmark around the data you wish to import.



Writing the Code

> **Following the Sample Code**
> There is a sample web application page `Part2.aspx` and code behind `Part2.aspx.cs` available in the **SalesInvoice/** directory that shows the completed code.

1. Include the SoftArtisans.OfficeWriter.WordWriter namespace in the code behind.

```
using SoftArtisans.OfficeWriter.WordWriter;
```

2. In the method that will actually run the report, instantiate the `WordTemplate` object.

```
WordTemplate WT = new WordTemplate();
```

3. Open the template file with the `WordTemplate.Open` method.

```
WT.Open(Page.MapPath("//templates//Part2_Invoice_Template.docx"));
```

4. Create an `object` array for the header and total values and a `string` array for the column names.

`WordTemplate` can be bound to numerous types of .NET data structures: single variables, arrays (1-D, jagged, multi-dimensional), `DataSet`,`DataTable`, `IDataReader` etc. The source of the data can come from anywhere.

Some of the aforementioned structures have built in column names, such as the `DataTable`. When working with arrays, which don't have built in column names, you have to define the column names in a separate `string` array.

```
object[] orderHeader
  = { "Jane", "Doe", DateTime.Now.ToString("MM/dd/yy"), 13139.51, 558.43, 13697.94 };
string[] orderHeaderColNames = { "FirstName", "LastName", "Date", "Subtotal", "Tax",
"Total" };
```

Following the Sample
In the sample project, we are parsing CSV files with query results, rather than querying a live database. The CSV files are available under the *data _directory. There is a copy of the CSV parser, `GenericParsing.dll` in the _bin* directory of the project. `GetCSVData` is defined in *Part1.aspx.cs* in a `region` marked *Utility Methods*.

If you are following in your own project and would like to parse the CSV files as well, you will need to:

- Add a reference to `GenericParsing.dll`.
- Include `GeneringParsing` at the top of your code.
- Add the `GetCSVData` method that can be found in the sample code.

5. Get the datatable for the repeat block.

```
DataTable dtOrderInfo = GetCSVData("//data//OrderInfo.csv");
```

6. Use `WordTemplate.SetRepeatBlock` to pass the data and the bookmark name.

```
WT.SetRepeatBlock(dtOrderInfo,"Repeat");
```

7. Use `SetDataSource()` to bind the order details arrays. Note that the data source name is the last string

```
WT.SetDataSource(orderHeader, orderHeaderColNames, "OrderHeader");
```

8. Call `WordTemplate.Process` to import the data into the file.

```
WT.Process();
```

9. Call `WordTemplate.Save` to save the output file.

`WordTemplate` has several output options: save to disk, save to a stream, stream the output file in a page's `Response` inline or as an attachment.

```
WT.Save(Page.Response, "Part2_Output.docx", false);
```

The final output should resemble this:

3 Brook Street
Watertown, MA 02472
http://www.officewriter.com

Dear Jane Doe,

Thank you for your purchase! Below are the details of your order:

12/20/12

Item	Quantity	Unit Price	Line Total
Sport-100 Helmet, Black	3	$34.99	$104.97
Sport-100 Helmet, Red	1	$34.99	$34.99
Road-650 Red, 44	3	$782.99	$2348.97
LL Road Frame - Red, 48	2	$337.22	$674.44
Road-450 Red, 44	2	$1457.99	$2915.98
Road-650 Red, 60	3	$782.99	$2348.97
LL Road Frame - Red, 62	1	$337.22	$337.22
Road-450 Red, 58	3	$1457.99	$4373.97
		Subtotal	$13139.51
		Tax	$558.43
		Total Cost	$13697.94

Final Code

```
using SoftArtisans.OfficeWriter.WordWriter;
...
//Instantiate a new WordTemplate object
WordTemplate WT = new WordTemplate();

//Open the template file
WT.Open(Page.MapPath("//templates//Part2_Invoice_Template.docx"));

//Create the array of header values
object[] detailsArray
    = { "Jane", "Doe", DateTime.Now.ToString("MM/dd/yy"), "13139.51", "558.43",
"13697.94" };
//Create the array of column names
string[] detailColNames = { "FirstName", "LastName", "Date", "Subtotal", "Tax",
"Total" };

//Get the order info datatable using GenericParser
DataTable dtOrderInfo = GetCSVData("//data//OrderInfo.csv");

//Set the repeat block to bind the data for multiple order items
WT.SetRepeatBlock(dtOrderInfo,"Repeat");
//Set the header data source to import a single row of data
WT.SetDataSource(orderHeader, orderHeaderColNames, "OrderHeader");

//Process to import the data to the template
WT.Process();

WT.Save(Response, "Part2_Output.docx", false);
```

Downloads

You can download the code for the Basic WordWriter Tutorials as a Visual Studio solution, which includes the Simple Expense Summary.

- WordWriter_Basic_Tutorials.zip