

# Passing ExcelApplication to ExcelTemplate

## Passing ExcelApplication to ExcelTemplate

ExcelWriter allows you to generate a spreadsheet from script alone - using the ExcelApplication object - or from a template spreadsheet and a script, using ExcelTemplate. You can also use ExcelApplication and ExcelTemplate together. This section shows you how to generate a template spreadsheet with ExcelApplication and pass the spreadsheet to ExcelTemplate which then populates the template's data markers.

1. Use ExcelApplication to create a worksheet and enter data marker strings in the worksheet's cells:

```
ExcelApplication xla = new ExcelApplication();
Workbook wb = xla.Create();
Worksheet ws = wb.Worksheets[0];

for (int i = 0; i < colCount; i++)
{
    ///--- Form the current data marker.
    ///--- Data markers are in this format:
    ///--- %%=[dsrcName].[colName]
    string curMarker = String.Format("%%={0}.{1}", dsrcName,
        selectedCols[i].ToString());
    ws[firstRow, firstCol + i].Value = curMarker;
}
```

A data marker is a cell value beginning with %%= or %%=\$ that specifies a variable, an array, or a database column, to insert in the spreadsheet column containing the marker. The data marker may be followed by a modifier. For example, to include column headers in the populated data marker column, the data marker should include the (fieldname) modifier:

```
%%=DataSource.EmployeeID(fieldname)
```

For more information, see [Creating Data Markers](#).

2. To open the workbook you created as an ExcelTemplate, pass your ExcelApplication and Workbook objects to ExcelTemplate's Open method:

```
ExcelTemplate xlt = new ExcelTemplate();
xlt.Open(xla, wb);
```

3. Connect to a database and execute a query to return a DataTable, DataView, or DataReader to use a data source for template data markers, for example:

```
private DataTable GetEmployeeDataTable()
{
    string EmployeeSQL = "SELECT TOP 10 FirstName + ' ' + LastName As Name, " +
        "Title FROM Employee";

    DataTable dt = new DataTable();
    using(SqlConnection conn = new SqlConnection(connString))
        new SqlDataAdapter(EmployeeSQL, conn).Fill(dt);

    return dt;
}
```

Alternatively, the data source for the template may be a rectangular array.

4. Set the returned `DataTable`, `DataRowView`, or `DataReader` as the data source for template data markers, and call `Process` to populate the data markers with data source values:

```
xlt.SetDataSource(dt, dsrName);
xlt.Process();
```

5. Call `Save` to save the template on the server, return it in memory, or - as in the following example - stream it to the browser:

```
xlt.Save(Page.Response, "Report.xls", false);
```

## Example

```

using SoftArtisans.OfficeWriter.ExcelWriter;

class AppToTemplate : System.Web.UI.Page
{
    protected void Page_Load(object sender, System.EventArgs e)
    {
        //--- Create ExcelApplication, a Workbook, and a Worksheet
        ExcelApplication xla = new ExcelApplication();
        Workbook wb = xla.Create();
        Worksheet ws = wb.Worksheets[0];

        //--- Write ExcelTemplate data markers into the workbook
        ws.Cells[0, 0].Value = "%=DSrcName.#1(fieldname)";
        ws.Cells[0, 0].Style.Font.Bold = true;
        ws.Cells[1, 0].Value = "%=DSrcName.#1";

        ws.Cells[0, 1].Value = "%=DSrcName.#2(fieldname)";
        ws.Cells[0, 1].Style.Font.Bold = true;
        ws.Cells[1, 1].Value = "%=DSrcName.#2";

        //--- Open the Workbook as ExcelTemplate
        ExcelTemplate xlt = new ExcelTemplate();
        xlt.Open(xla, wb);

        //--- Bind data using ExcelTemplate SetDataSource
        string[,] values = {{"New York", "NY"},
                            {"Miami", "FL"},
                            {"Boston", "MA"}};
        string[] names = {"City", "State"};
        xlt.SetDataSource(values, names, "DSrcName");
        xlt.Process();
        xlt.Save(Page.Response, "AppToTemplate.xls", false);
    }
}

```

## Code Sample: Passing ExcelApplication to ExcelTemplate

[\[C#\]](#) | [\[VB.NET\]](#)