

Extracting Data from Excel

Description

This sample demonstrates how to extract data from an Excel file using ExcelWriter and import it to a PowerPoint presentation using PowerPointWriter.

The Data

Our Excel file contains employee data from the AdventureWorks database.

	A	B	C	D	E
1	AdventureWorks Employee Listing				
2					
3	Employee ID	First Name	Last Name	Title	Hire Date
4	1	Teri	Duffy	VP Engineering	3/3/1998
5	2	Jian Shuo	Wang	Engineering Manager	12/12/1997
6	3	Michael	Sullivan	Sr. Design Engineer	1/30/2001
7	4	Sharon	Salavaria	Design Engineer	2/18/2001
8	5	Gail	Erickson	Design Engineer	2/6/1998
9	6	Jossef	Goldberg	Design Engineer	2/24/1998
10	7	Ovidiu	Cracium	Sr. Tool Designer	1/5/2001
11	8	Janice	Galvin	Tool Designer	1/23/2001
12	9	Thierry	D'Hers	Tool Designer	1/1/1998
13	10	Brian	Welcker	VP Sales	3/18/2001
14	14	Stephen	Jiang	North American Sales Manager	2/4/2001
15	20	Syed	Abbas	Pacific Sales Manager	4/15/2003
16	21	Amy	Alberts	European Sales Manager	5/18/2002
17	22	Pamela	Ansman-Wolfe	Sales Representative	6/19/2001
18	23	David	Campbell	Sales Representative	5/2/2003
19					

The Template

Our template presentation has a table with columns corresponding to the data in our Excel file.

EXAMPLE – INTO A TABLE

Employee ID	First Name	Last Name	Title	Hire Date
员工=Employee.ID	员工=Employee.Fir stName	员工=Employee.Last Name	员工=Employee.Title	员工=Employee.Hire Date

The Code

The code below uses `ExcelApplication` to extract the data from the Excel spreadsheet into a `DataTable`. This code is also used in the `ExcelWriter` sample, [Excel to DataTable Sample](#). It then passes the presentation to `PowerPointTemplate` and binds the data. The code uses `MaxRowsPerSlide` to ensure the data fits neatly in the presentation. See [Fitting Data on to Multiple Slides](#) for more information.

```
private static void RunExcelToPresentation()
{
    //Use ExcelApplication to extract the data from the Excel spreadsheet
    //See http://wiki.softartisans.com/display/EW8/Excel+to+DataTable+Sample
    for more information
    ExcelApplication xla = new ExcelApplication();
    Workbook wb = xla.Open(@"..\..\inputs\Data.xlsx");

    Range dataRange = wb.GetNamedRange("Employees");
    Area dataArea = dataRange.Areas[0];

    int[] dateColumnIndxs = new int[] { 4 };

    DataTable dataTable = AreaToDataTable(dataArea, true, dateColumnIndxs,
    "Employees");

    //Populate the presentation with the data
    PowerPointTemplate ppt = new PowerPointTemplate();
    ppt.Open(@"..\..\inputs\ExcelToPresentationTable.pptx");

    SoftArtisans.OfficeWriter.PowerPointWriter.DataBindingProperties dataProps
    = ppt.CreateDataBindingProperties();
    dataProps.MaxRowsPerSlide = 10;
    ppt.BindData(dataTable, "Employee", dataProps);
}
```

```

        ppt.Process();
        ppt.Save(@"..\..\outputs\ExcelToPresentationTableOut.pptx");
    }

    private static DataTable AreaToDataTable(Area a, bool hasHeaderRow, int[]
dateColumnIndexes, string tableName)
    {
        // Set count and index variables
        int dataRowCount;
        int firstDataRowIdx;
        int columnCount = a.ColumnCount;

        if (hasHeaderRow == true)
        {
            firstDataRowIdx = 1;
            dataRowCount = a.RowCount - 1;
        }
        else
        {
            firstDataRowIdx = 0;
            dataRowCount = a.RowCount;
        }
        // Create DataTable
        DataTable table = new DataTable(tableName);

        // Add columns to DataTable
        for (int colIdx = 0; colIdx < columnCount; colIdx++)
        {
            string columnName;

            if (hasHeaderRow == true)
            {
                // Get column name from cell value
                columnName = (string)a[0, colIdx].Value;
            }
            else
            {
                // Use a generic column name
                columnName = "Column" + colIdx;
            }

            // Insert column into DataTable
            table.Columns.Add(new DataColumn(columnName));
        }

        //Populate rows of DataTable
        // For each row in Area
        for (int rowIdx = 0; rowIdx < dataRowCount; rowIdx++)
        {
            // Add row to DataTable
            DataRow row = table.NewRow();
            table.Rows.Add(row);

            // For each column
            for (int colIdx = 0; colIdx < columnCount; colIdx++)
            {
                // Get value from cell
                object val = a[firstDataRowIdx + rowIdx, colIdx].Value;
            }
        }
    }

```

```

        // If current column is in the array of date columns, convert to a
.NET date.
        //(Excel dates are stored in a serial format which we must
convert.)

        if (Array.IndexOf(dateColumnIndexes, colIdx) != -1)
        {
            // Convert to a .NET date using conversion method below
            DateTime dt = ExcelSerialDateToDateTime(Convert.ToInt32(val));

            // Add date to DataTable
            row[colIdx] = dt.ToShortDateString();
        }
        else
        {
            // Otherwise, just add cell value to DataTable
            row[colIdx] = val;
        }
    }

    // Return DataTable
    return table;
}

private static DateTime ExcelSerialDateToDateTime(int serialDate)
{
    if (serialDate == 60)
    {
        return new DateTime(1900, 2, 29);
    }
    else if (serialDate < 60)
    {
        serialDate++;
    }

    return new DateTime(1900, 1, 1).AddDays(serialDate - 2);
}

```

}

Result

The resulting output shows all the data from the Excel spreadsheet in a PowerPoint presentation table.

EXAMPLE - INTO A TABLE				
Employee ID	First Name	Last Name	Title	Hire Date
1	Teri	Duffy	VP Engineering	3/3/1998 12:00:00 AM
2	Jian Shue	Wang	Engineering Manager	12/12/1997 12:00:00 AM
3	Michael	Sullivan	Sr. Design Engineer	1/30/2001 12:00:00 AM
4	Sharon	Delevoria	Design Engineer	2/18/2001 12:00:00 AM
5	Gail	Brickson	Design Engineer	2/4/1998 12:00:00 AM
6	Josef	Goldberg	Design Engineer	2/24/1998 12:00:00 AM
7	Ovidu	Orsolum	Sr. Test Designer	1/5/2001 12:00:00 AM
8	Janice	Galvin	Test Designer	1/23/2001 12:00:00 AM
9	Thierry	Oliver	Test Designer	1/1/1998 12:00:00 AM
10	Brian	Walster	VP Sales	3/18/2001 12:00:00 AM

EXAMPLE2 - INTO A TABLE				
Employee ID	First Name	Last Name	Title	Hire Date
14	Stephan	Jiang	North American Sales Manager	2/4/2001 12:00:00 AM
20	Syed	Abbas	Pacific Sales Manager	4/15/2003 12:00:00 AM
21	Amy	Albert	European Sales Manager	5/18/2003 12:00:00 AM
22	Pamela	Anaman-Wolfe	Sales Representative	4/19/2001 12:00:00 AM
23	David	Campbell	Sales Representative	5/2/2003 12:00:00 AM

Downloads

data: [Data.xlsx](#)

template: [template.pptx](#)

output: [output.pptx](#)