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.

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);
```

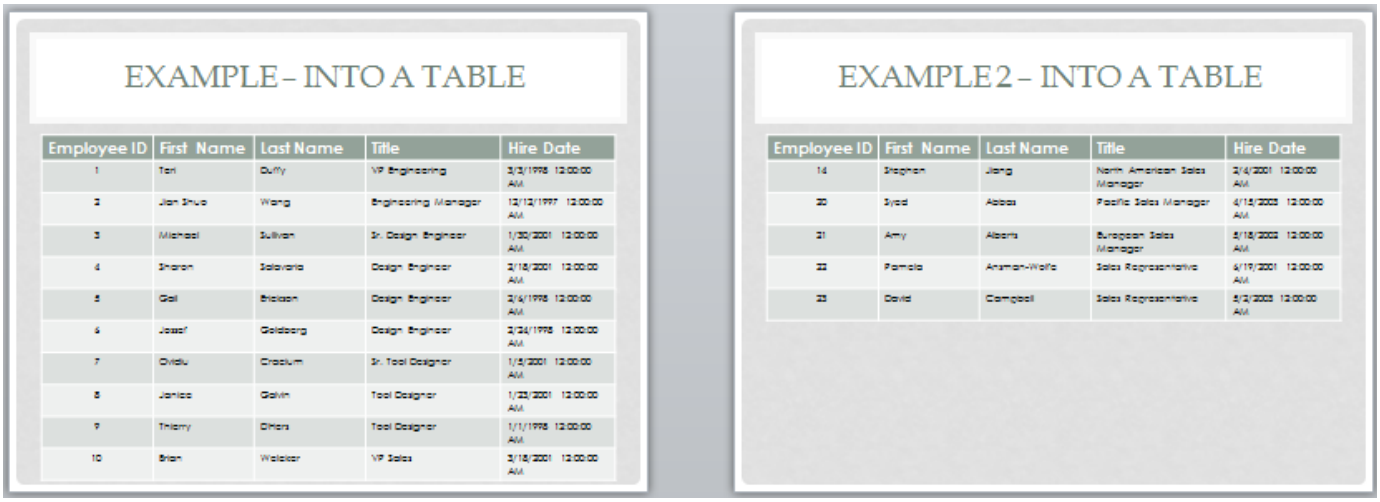
```
            ppt.Process();
            ppt.Save(@"..\..\outputs\ExcelToPresentationTableOut.pptx");
        }

        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	Tori	Duffy	VP Engineering	3/3/1998 12:00:00 AM
2	Jian Shuo	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	Salavaria	Design Engineer	2/18/2001 12:00:00 AM
5	Gail	Erickson	Design Engineer	2/6/1998 12:00:00 AM
6	Jossef	Goldberg	Design Engineer	2/24/1998 12:00:00 AM
7	Dylan	Cracium	Sr. Tool Designer	1/5/2001 12:00:00 AM
8	Janice	Galvin	Tool Designer	1/23/2001 12:00:00 AM
9	Thierry	D'Hers	Tool Designer	1/1/1998 12:00:00 AM
10	Brian	Welcker	VP Sales	3/15/2001 12:00:00 AM

EXAMPLE 2 – INTO A TABLE

Employee ID	First Name	Last Name	Title	Hire Date
14	Stephen	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	Alberts	European Sales Manager	5/15/2002 12:00:00 AM
22	Pamela	Ansman-Wolfe	Sales Representative	6/19/2001 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