General Features

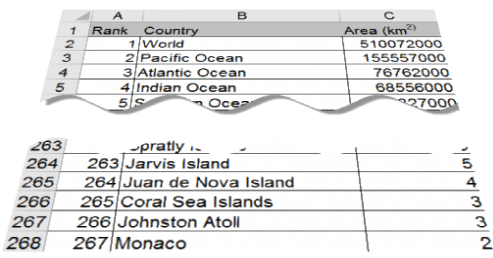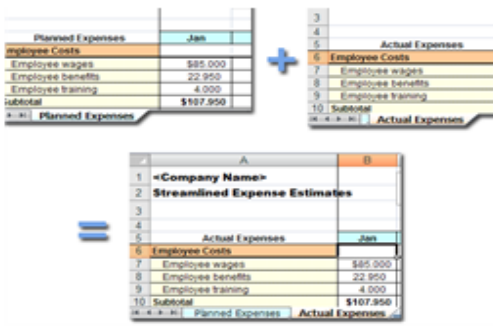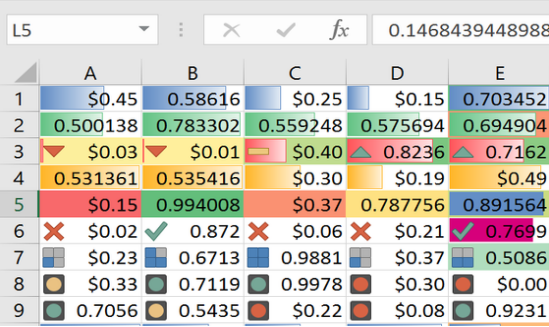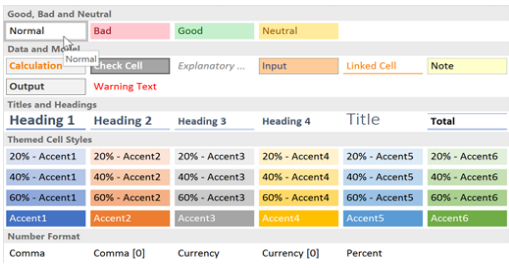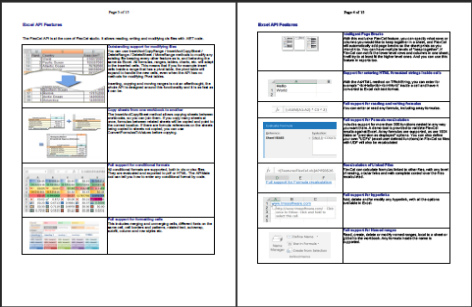|	
	Reliable This is the feature we care most about. If something doesn't work, all other features are useless. FlexCel for .NET is used daily by thousands of companies around the world, and we have a huge suite of automated tests that verify that it "just works".
	Fast All code is optimized once and again to achieve the maximum possible performance. Because your users deserve fast applications.
	Managed Code FlexCel for .NET is written in 100% C# code without interops or p/invokes, for maximum portability, performance and security. There is no need to have Acrobat or Excel installed.
	Multi platform FlexCel for .NET Runs in Mono (Linux), .NET 64 bits, Xamarin.iOS, Xamarin.Android, Xamarin.Mac, Windows Phone and .NET CORE. You can use FlexCel on .NET 2.0, 3.5, 4.0 and 4.5 and there are optimizations for each version of the framework. Also Supports .NET Core. And everything is included in the same license!
 FlexCel.dll	**Easy to deploy** In most cases there is only a single dll to deploy on your application, everything is there. There is no need for any third party dll or application, and of course you do not need Excel or Acrobat installed. Two small extra dlls add specific functionality for Winforms and ASP.NET.

General Features

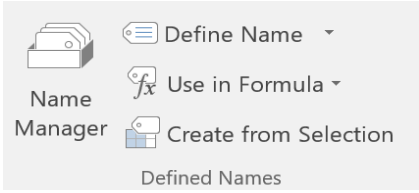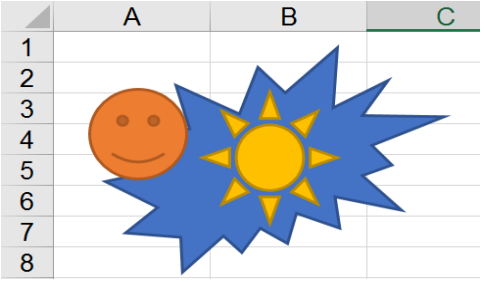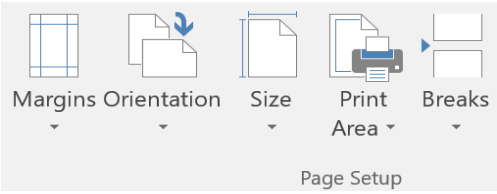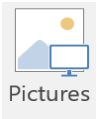|	**Fully documented**
	FlexCel comes with a complete reference for every method (both integrated on Visual Studio Help and standalone), PDF files explaining the concepts, and more than 50 fully documented examples that you can browse and search from a "MainDemo" demo browser. All Demos are available in both **C#** and **Visual Basic.NET**
	Source code included
```namespace FlexCel.Core { /// <summary> /// Interface a FlexCel engine has /// </summary> /// <remarks>This is an abstract /// FlexCel provides an implementa /// </remarks> #if (!NETFX_CORE)```	Because reading the source files and being able to debug them is invaluable when you have a problem, every license of FlexCel comes with full sources, at no added price.

Excel API Features
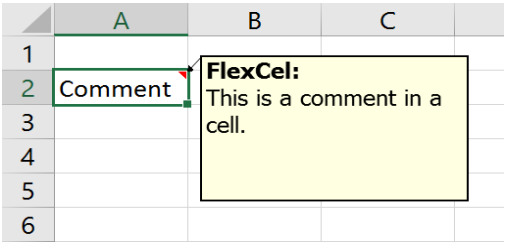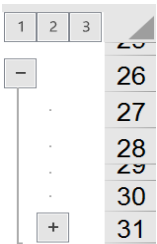
The FlexCel API is at the core of FlexCel studio. It allows reading, writing and modifying xls files with .NET code.

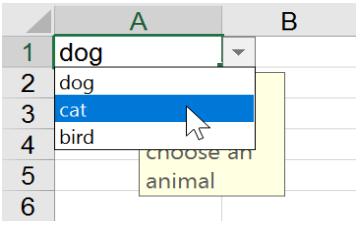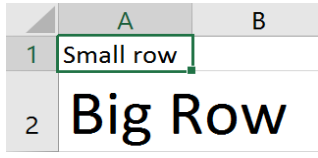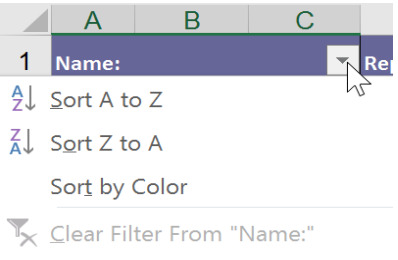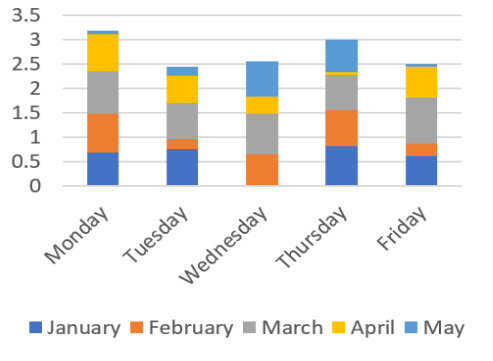|	
	Outstanding support for modifying files You can use InsertAndCopyRange / InsertAndCopySheet / DeleteRange / DeleteSheet / MoveRange methods to modify any existing file keeping every other feature as is, and behaving the same as Excel. All formulas, ranges, tables, charts, etc. will adapt to the inserted cells. This means that if you for example insert cells inside a range that has a pivot table, the pivot table will expand to handle the new cells, even when the API has no methods for modifying Pivot tables. Inserting, copying and moving ranges is not an afterthought, the whole API is designed around this functionality and it is as fast as it can be.
	Copy sheets from one workbook to another The InsertAndCopySheet method allows copying sheets between workbooks, so you can join them. If you copy many sheets at once, formulas between related sheets will be copied and point to the correct location. If there are formula references on the sheets being copied to sheets not copied, you can use ConvertFormulasToValues before copying.
	Full support for conditional formats All conditional formats are supported, both in xls or xlsx files. They are evaluated and exported to pdf or HTML. The APIMate tool can tell you how to enter any conditional format by code.
	Full support for formatting cells This includes merging and unmerging cells, different fonts on the same cell, cell borders and patterns, rotated text, autowrap, autofit, column and row styles etc.

Excel API Features

	Intelligent Page Breaks With this exclusive FlexCel feature, you can specify what rows or columns you would like to keep together in a sheet, and FlexCel will automatically add page breaks so the sheet prints as you intend it to. You can have multiple levels of "keep together", if FlexCel can not fit the lower level rows and columns in one sheet, it will try to at least fit the higher level ones. And you can use this feature in reports too.
	Support for entering HTML formatted strings inside cells With the AsHTML method on TRichString, you can enter for example "\<b\>Hello\</b\>\<br\>World" inside a cell and have it converted to Excel rich text format.
	Full support for reading and writing formulas You can enter or read any formula, including array formulas.
	Full support for Formula recalculation Includes support for more than 300 functions nested in any way you want them. A demo tool is provided to validate FlexCel results against Excel. Array formulas are supported, as are 1904 dates or "precision as displayed" options. You can also define your own "UDFs" (excel user defined functions) in FlexCel so files with UDF will also be recalculated
	Recalculation of Linked Files FlexCel can calculate formulas linked to other files, with any level of nesting, cicular links and with complete control over the files recalculated.
	Full support for hyperlinks Add, delete and/or modify any hyperlink, with all the options available in Excel.
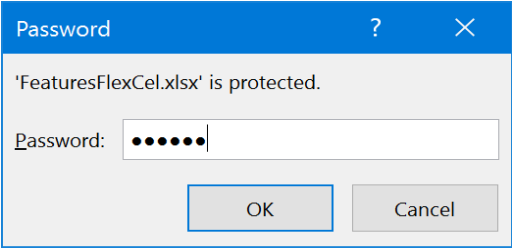
Excel API Features

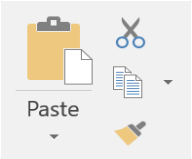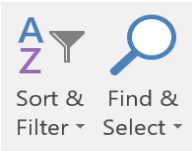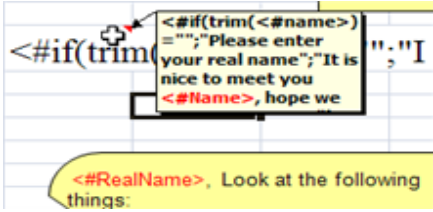|	
	Full support for Named ranges Read, create, delete or modify named ranges, local to a sheet or global to the workbook. Any formula inside the name is supported.
	Autoshapes reading and modifying support Read any autoshape property and modify it. Also delete/copy autoshapes or change their position and text.
	Full support for printing options Set and get all printing options (paper size, rows to repeat at the top, etc). Also add images to headers and footers, or read the existing images.
	Full support for Images Add images to a sheet, modify them, delete them and change their properties.
	Full support for Comments Read and write them as you want.
	Full Group and outline support It works the same as in Excel. Add and modify row and column outlines, and read their values.

Excel API Features
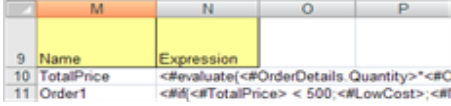
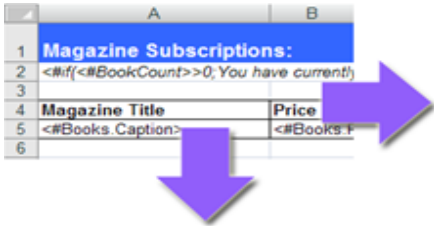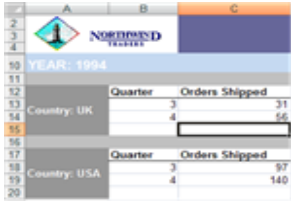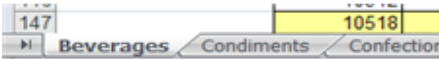|	
	Full Data Validation support Create or find out the data validation options in a cell, with the full array of options included in Excel.
	Autofit support Autofit a column, a row or all the rows on a sheet so all the text is visible in the column or row.
	Autofilter support Read or write autofilters in any xls or xlsx file
	Support for reading Charts. Read all the properties of a chart (xls charts only, not xlsx). No support is given to add a new chart yet, but you can copy an existing one, and also insert rows on a template to modify the ranges of the chart.
	Support for saving and reading from a stream. This means that you can stream the files directly to a browser or a database without creating them as temporary files.

Excel API Features

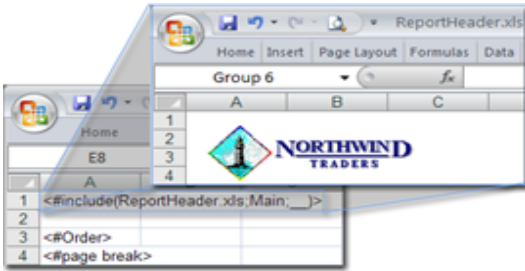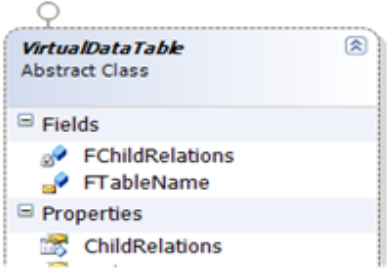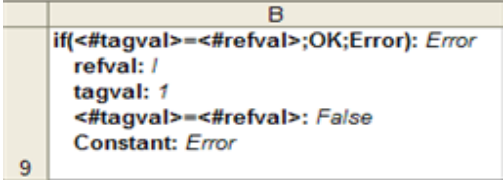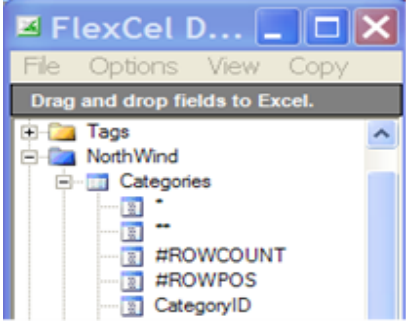|	
	Read and Write Encrypted files Full support for Excel 97 and 2000 encryption (the default on Excel 97-2003) and for workbook protection options (password protect a sheet, lock cells, etc.) Full support for Excel 2007, 2010 and 2013 xlsx encryption.
	Copy and Paste support With FlexCel your application can copy and paste in native xls format, without having to rely on txt. Of course txt is fully supported too, so you can paste or copy from other applications like OpenOffice. But when copying and pasting to Excel, the xls format is used.
	Sort and Search and Replace in ranges Sort a range of cells as you would with Excel, and also search and/or replace expressions inside cells.
	Support for exporting to other file formats Read and Save as CSV, TXT or PXL (Pocket Excel)
	Tool For exploring the API included FlexCel includes a tool, APIMate, that lets you easily find out which method you need to call to do a task. Do you want to enter a rich string with the first part in blue and the second in red? Just do it in Excel, and open the file with APIMate to learn the commands you need to enter in your application. Code is generated in C#, Visual Basic.NET and Oxygene.
	And more… We are always improving FlexCel so it supports more and more functionality. Feel free to email us for any doubt or request

Reporting Features

The reporting engine is built on top of the FlexCel API, and allows to design your reports directly with Excel, with a minimum of .NET code. This way writing reports becomes fun, and your end users can modify your reports with a tool they already know, Excel.

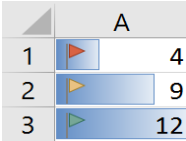|	
	DataSets and LINQ support You can do reports from .NET dataset or from any Ienumerable/IQueryable object.
	Replace tags inside cells, comments, sheet names, images, hyperlinks, autoshapes, textart, headers and footers You can write a <#tag> virtually anywhere on an Excel sheet, and it will be replaced by a value from memory or a database.
	Support for complex reporting expressions You can write something like <#if(<#table.field>=1;true;false)> inside a cell, and it will write "true" when table.field is 1, "false" otherwise. Any of the more than 300 Excel formulas supported can be used, along with other FlexCel built in functions like "lookup".
	Support for columnar and row report bands A band can grow horizontally or vertically, allowing for any kind of reports. You can use a column band inside a row band to create a cross reference report.
	Support for any level of master detail reports You can nest any number of reports, and FlexCel will automatically read the relationships between the tables to find out how to relate them.
	Multiple sheet reports Use as many sheets as you want for a report. You can use them independently one from the other, or make a master-detail report where each sheet holds a different master record.

Reporting Features
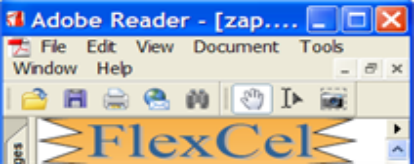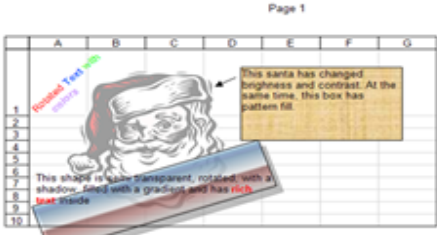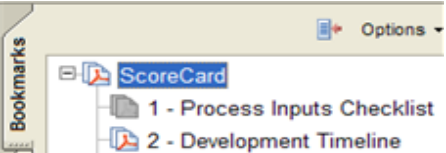
	Includes You can <#include> a report inside another, allowing for the maximum of flexibility and modularity. This way you can use the same parts again and again. For example, you could have a Header.xls file with the header of your reports included in all of them. So when you need to change the header, you can just change Header.xls and all your reports will have the new header.
	Regular Expressions You can use (at your choice) full regular expressions inside the reports to manage the text.
	Formulas with tags You can use the <#formula> tag to replace a tag inside a formula.
	Configuration sheet A sheet where you can define your own tables, reusable expressions and more. For example, you can define <#red> to be <#lockup(.....)> and the use <#red> in the template instead of the whole expression. Everything is done on the template and can be modified by the final user.
	Generic Reports For the cases where you want to just dump a dataset, you can use the <#table.*> tag.
	Direct SQL You can embed the SQL for your reports directly on the template, allowing for a "zero code" report. Changing anything on the report only implies changing the template.
	User Tables If you would not prefer to embed direct SQL but would like to be able to define the queries in the template, you can use an user table event. This allows for a more controlled environment than DirectSQL, while still allowing to change the data layer without modifying the code.

Reporting Features
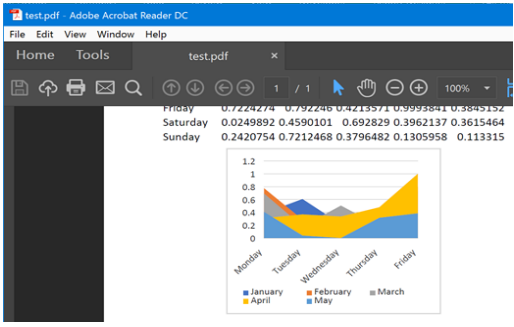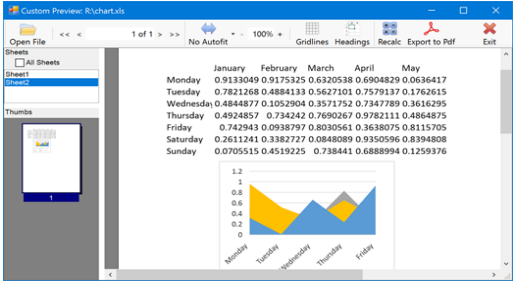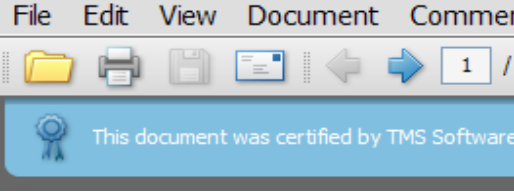
```#region Orders Implementation private class OrdersImp: TFlexCelUserFunction { DataView OrdersDv; ```	**User Defined Functions** You can add your own functions on the code to the already big list implemented by FlexCel, and use them as native functions in your report.
	Virtual Datasets While by default FlexCel uses Dataset classes for the reports, you can use any Business Object that you want as source for your report. You only need to implement two abstract classes.
	Debug Mode A special diagnostic mode allows to "debug" your reports and see what is happening inside complex expressions.
	FlexCel designer A standalone application from where you can drag and drop the fields defined on the tables you use directly to Excel without writing them with the keyboard. As with everything else, full source code for FlexCelDesigner is included.
	And more… Please take a look at MainDemo to find out even more functionality.

Printing And Exporting Features

FlexCel includes a state of the art rendering engine, for printing, previewing and exporting to PDF.
You can use the rendering engine to render any xls file, not only those generated by FlexCel.

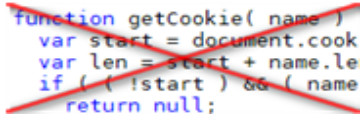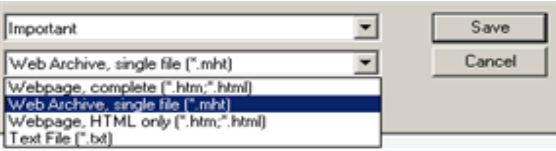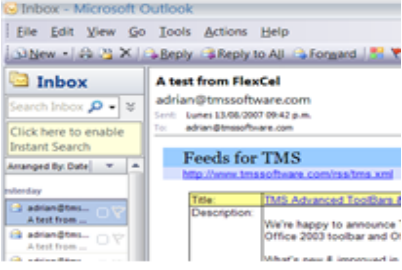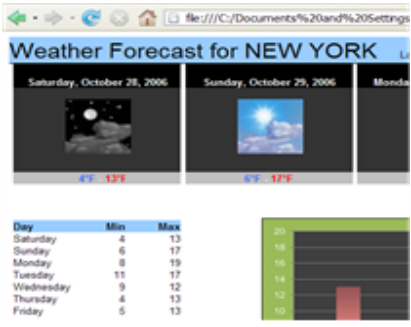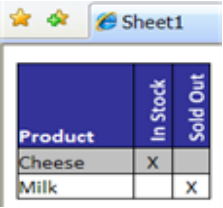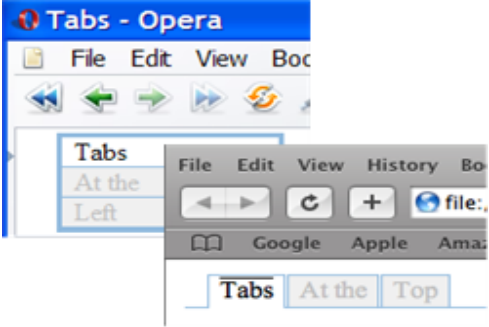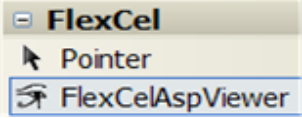|	
Print	**Resolution independent printing** Different from Excel, FlexCel uses GDI+ to render the files, and this means that it will print virtually the same on any printer. As Excel prints different things depending on the printer type and resolution, FlexCel was calibrated to bring the same result you would get when printing to a 600dpi laser printer. You can also alter this zoom factor in the code, if you want to emulate other printer.
A 1 ▶ 4 2 ▶ 9 3 ▶ 12	**Export of Conditional Formatting** FlexCel will automatically calculate any conditional formula or expression when exporting or printing, and format the cell as needed. All conditional formats in xls or xlsx files are supported, including icons, databars and color scales.
Shapes	**Autoshapes** The rendering engine can export and print more than 60 types of autoshapes, including all most used ones. A spreadsheet is included in the documentation detailing which shapes are supported and which are not.
Adobe Reader - [zap.... File Edit View Document Tools Window Help FlexCel	**Partial Text Art support** While not all TextArt effects are rendered, and in particular text paths are not yet supported, text art is printed and exported.
Page 1	**Almost any other thing you can think of** Header/footer, repeating rows and headers, heading rows, gridlines, margins, cell patterns, rotated text, subscripts, superscripts, rich format on a cell and more. Shadows, brightness/contrast adjustments on images, transparency, semi-transparency, rotated images. Gradient and pattern textures. Everything for both xls and xlsx files.
Bookmarks ScoreCard 1 - Process Inputs Checklist 2 - Development Timeline	**Support for bookmarks on PDF** You can automatically add a bookmark per sheet, or add them on your own event as you like.

Printing And Exporting Features

<table>
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Charts

2d charts are rendered with lots of attention to the detail (xls files only, not xlsx). 3d charts are currently rendered as 2d.

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Full Winforms preview component included.

With support for thumbnails, zoom and more. There is a demo included with full source, "CustomPreview", where you can learn how to add a preview form to your application.

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Export an xls file to multipage tiff, png, jpg, gif, fax, etc.

There is an included component that allows you to export any xls file to an image, with the same level of detail provided by the rendering engine.

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Signed PDFs

FlexCel allows you to sign the PDFs it creates with your own certificates. Both visible and invisible signatures are supported.

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<td>

And more…

As always, it is impossible to detail everything here, but we hope we included the most important points.

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</table>

Export To HTML Features

Also included is an HTML exporting engine that can convert any xls file to HTML.
While due to format limitations in HTML the output is not as detailed as the PDF output, it is very complete.

	Standards Compliant FlexCel Generates fully standards compliant HTML files, in HTML 4.01, 5 or XHTML 1.0. You can verify their compliance at the link below: http://validator.w3.org/
	Browser Compatible Tested with Internet Explorer 6 and up, FireFox, Opera, Chrome and Safari
	No JavaScript All dynamic effects are done with CSS, and JavaScript is not used anywhere in the generated pages. This means the files can be used in secure environments where JavaScript is not enabled.
	MHTML Support Files can be saved as fully compliant MHTML format, which can be used to email the file. An MHTML file stores all images inside a single file, and it is compatible with the option "Save as web page, single file" in Internet Explorer. A demo is included showing how to email an exported html file.
	Outlook 2007 support Outlook 2007 uses a non standard rendering engine to show HTML email (Word 2007 engine), and it is not capable of showing images in absolute positions. FlexCel offers a fix for this, allowing to include equivalent VML commands that will be ignored by other HTML mail readers, but will make Outlook 2007 output look fine.
	Rich Formatting Support While not as complete as the PDF export, most things are included in the generated HTML file. This includes hyperlinks, images, charts, wordart, conditional formats, merged cells, and more. Even Page breaks are exported in browsers that support them(IE and FireFox)

Export To HTML Features

	Vertical Text Even when there is no direct support for rotated text in HTML, FlexCel gives you the option to convert vertical text in Excel to images in the HTML file, at your choice. So those tables with vertical headings will look as they should.
	Fully customizable sheet tabs FlexCel offers the option to export a single sheet in a workbook into an html file, all the sheets in one file or all the sheets as tabs. When exporting as tabs, you can choose their position (at the top, at the left, at the right or at the bottom) and fully customize their style. You can customize simple things (like the tab color), more complex things (by changing the CSS styles on the tabs) or completely define your own tabs by creating a descendant class.
	Resolution Independent All objects and font sizes in the generated files are in relative units, making sure they render consistently in different browsers, operating systems and when printing. Also the files scale properly (including images) when the user changes the DPI settings in his machine. (For example to large fonts)
	Native ASP.NET viewer component We include a component "FlexCelASPViewer" that can be used in ASP.NET applications and will show an Excel file as HTML inside your application. You just need to drop a FlexCelASPViewer in a form, set its properties, and you can see any Excel file directly in your browser, converted to HTML.

Export To HTML Features

<table>
<tr>
<td rowspan="1"></td>
<td>We eat our own dog food
Normally a good sign that a company cares about their products is if they use them themselves. And as a matter of fact, this very document you are reading was created using FlexCel.
We created this list with FlexCel Reports, and converted it to HTML using FlexCel. This way, we get standards compliant markup and a much cleaner HTML than the one we would get by exporting to HTML directly from Excel. As a plus, it also works in any modern browser.
Using FlexCel allows us to automate our building system and customize the generated output.
You can find the source of the Application in the "Features Page" demo included in FlexCel. You can also see this file as xls and pdf here:

<u>Original Excel file</u>
<u>Excel File converted to PDF with FlexCel</u></td>
</tr>
<tr>
<td></td>
<td>And more…
This is just a look at the surface. Many other things are included, so it is probably a good time now to take a look.</td>
</tr>
</table>