



# EASYXLS

Detailed Specifications Sheet



## Overview

**EASYXLS** is a server-side spreadsheet component enabling to easily read and write native Excel files without having Microsoft Excel installed on server or client machine. It works without Microsoft Excel or OLE Automation. It can be integrated with both desktop or web based applications and can be use both in Intranet or Internet.

**EASYXLS** is a tool for generating columnar or chart reports, but also can be used for generating simple Excel spreadsheets. By writing simple code, your report is exported to a Microsoft Excel document. Additional, an Excel file can be read and the values are available for your application.

## Requirements

Microsoft .NET Framework installed on server

Can be used by any .NET application or any environment that supports COM objects like:

- Web Pages: VBScript, Jscript, JavaScript
- Active Server Pages (ASP) applications
- Visual Basic, C++, and Java
- Supports BIFF8 format used by MS Excel 97-2003, Open XML and BIFF12 formats used by MS Excel 2007-2013
- Source code: C#



# Why

- Server controlled Excel component
- Microsoft Excel is not required on the server
- Works without Microsoft Excel or OLE Automation
- Easy to use
- Fully documented
- API
- Demos
- Customer support
- Source code available
- It's fast

## Why not OLE Automation

More: <http://support.microsoft.com/default.aspx?scid=kb;EN-US;q257757#kb2>

“Microsoft does not currently recommend, and does not support, Automation of Microsoft Office applications from any unattended, non-interactive client application or component (including ASP, DCOM, and NT Services), because Office may exhibit unstable behavior and/or deadlock when run in this environment.

If you are building a solution that runs in a server-side context, you should attempt wherever possible to use components that have been made safe for unattended execution, or find alternatives that allow at least a part of the code to run client-side. If you choose to use an Office application from a server-side solution, you will find that it lacks many of the necessary capabilities to run successfully, and you will be taking risks with the stability of your overall solution.”

## Cell values

- Strings
- Numbers
- Dates
- Booleans
- Formulas
- Errors

## Formulas

- All functions supported by Excel
- Arithmetic, logical and unary operators
- Formulas with numbers, dates and strings
- Formulas with cell references
- Formulas with cell ranges
- Formulas with names
- Formulas with arrays
- Formulas in A1 or R1C1 reference style
- Formulas with references to external documents

## Formula computation engine

- Formula computation engine is available

## Worksheets

### Multiple worksheets per file are available

Properties:

- Title
- Worksheet can be selected
- Worksheet can be protected
- Worksheet can be hidden
- Password protection
- Zoom
- Tab color

## Chart sheets

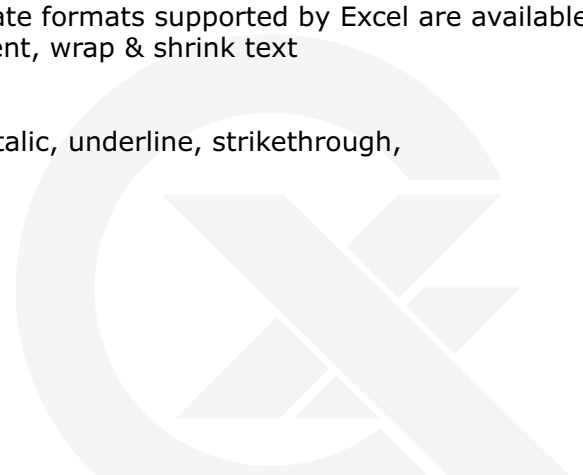
### Chart sheets are available

Properties:

- Title
- Chart sheet can be selected
- Chart sheet can be protected
- Chart sheet can be hidden
- Password protection
- Zoom
- Tab color

## Format cells

- Format a cell, a row, a column or a specified range
- Number format - all text, number and date formats supported by Excel are available
- Alignment - vertical & horizontal alignment, wrap & shrink text
- Indent
- Text rotation
- Font - font name, font size, color, bold, italic, underline, strikethrough, superscript & subscript
- Border - style and color
- Background & foreground
- Pattern
- Protection - locked & hidden
- Merged cells
- Rich text format



<b>Page Setup</b>	<ul style="list-style-type: none"> <li>Print gridlines, print black and white, print draft quality, print row and column headings, print comments</li> </ul>
<b>Page breaks</b>	<ul style="list-style-type: none"> <li>Horizontal and vertical page breaks</li> <li>Allows displaying the file in page break preview mode</li> </ul>
<b>Row &amp; column dimension</b>	<ul style="list-style-type: none"> <li>Row height &amp; column width can be set for the grid</li> </ul>
<b>Group and outline levels</b>	<ul style="list-style-type: none"> <li>Group the rows and the columns. Multiple and embedded outline levels are available.</li> </ul>
<b>Split and freeze panes</b>	<ul style="list-style-type: none"> <li>Split window views</li> <li>Freeze rows and columns</li> </ul>
<b>Filter and Auto-Filter</b>	<ul style="list-style-type: none"> <li>Auto-Filter</li> <li>Advanced Filter</li> </ul>
<b>Chart objects</b>	<ul style="list-style-type: none"> <li>All chart types and chart formats supported by Excel are available. See more details.</li> </ul>
<b>Encryption</b>	<ul style="list-style-type: none"> <li>Password protection for the workbook</li> <li>Password to open and password to modify MS Excel documents</li> </ul>
<b>File properties</b>	<ul style="list-style-type: none"> <li>Document summary properties</li> <li>Custom properties</li> </ul>
<b>Read as SQL result set</b>	<ul style="list-style-type: none"> <li>Read the sheet values of an XLS document (Office 2007-2013)</li> <li>Read the active sheet values of an XLS document (Office 2007-2013)</li> <li>Read the sheet values of an XLSX document (Office 2007-2013)</li> <li>Read the active sheet values of an XLSX document (Office 2007-2013)</li> <li>Read the sheet values of an XLSB document (Office 2007-2013)</li> <li>Read the active sheet values of an XLSB document (Office 2007-2013)</li> <li>Read the values from a TXT file</li> <li>Read the values from a CSV file</li> <li>Read the values from an XML file</li> </ul>
<b>Save as</b>	<ul style="list-style-type: none"> <li>XLS document (Office 2007-2013)</li> <li>XLSX document (Office 2007-2013)</li> <li>XLSB document (Office 2007-2013)</li> <li>TXT file</li> <li>CVS file</li> <li>XML file</li> <li>HTML file</li> </ul>
<b>Load</b>	<ul style="list-style-type: none"> <li>An XLS document (Office 2007-2013)</li> <li>An XLSX document (Office 2007-2013)</li> <li>An XLSB document (Office 2007-2013)</li> <li>A TXT file</li> <li>A CSV file</li> <li>An XML file</li> <li>An HTML file</li> </ul>
<b>Import/Export</b>	<ul style="list-style-type: none"> <li>SQL result sets</li> <li>XML files</li> <li>TXT files</li> <li>CSV files</li> <li>HTML files</li> <li>Custom lists</li> </ul>
<b>VB and macros</b>	<ul style="list-style-type: none"> <li>Preserve the macros when load/edit/write XLS files.</li> </ul>
<b>Pivot tables</b>	<ul style="list-style-type: none"> <li>Preserve the pivot tables when load/edit/write XLS files</li> </ul>

## Auto-formats

- Default Excel auto-formats
- Custom auto-formats

## Conditional Formatting

- Conditional formatting for a range
- Font – color, bold, italic, underline, strikethrough
- Border – style and color
- Background & foreground

## Hyperlinks

- URL's,
- Files
- Cell references
- Named ranges

## Comments

### **Can be attached to a cell.**

Properties:

- Font name, font size, bold, italic, underline
- Foreground
- Location

## Images

### **JPEG images can be added to a worksheet**

Properties:

- Image file path
- Location

## Names

Properties:

- Title
- Formula
- Hidden
- Named cells or ranges can be added for a workbook

## Data validation

- Data entered in a cell can be restricted to certain values.
- Input message and error alert can be set
- Drop-down controls to select the allowable values for a cell are available.

## Header & footer

### **Header and footer can be attached to a worksheet.**

Properties:

- Position left, center and right side
- Font font name, font size, underline, strikethrough, superscript, subscript
- Predefined texts: page number, total number of pages, date and time, file name

## Page Setup

- Set page orientation (portrait, landscape), paper size
- Set scaling factor, fit to pages width/height
- Set paper margins
- Set print area
- Set rows to be repeated at top, columns to be repeated at left
- Print order

## Chart types

- Clustered column
- Stacked column
- 100% stacked column
- 3D clustered column
- 3D stacked column
- 3D 100% stacked column
- 3D column
  
- Clustered bar
- Stacked bar
- 100% stacked bar
- 3D clustered bar
- 3D stacked bar
- 3D 100% stacked bar
  
- Line
- Stacked line
- 100% stacked line
- Line with markers
- Stacked line with markers
- 100% stacked line with markers
  
- Pie
- Pie 3D
- Pie of pie
- Exploded pie
- Exploded pie 3D
- Bar of pie
  
- Scatter
- Scatter smoothed lines
- Scatter smoothed lines with markers
- Scatter lines
- Scatter lines with markers
  
- Area
- Stacked area
- 100% stacked area
- 3D area
- 3D stacked area
- 3D 100% stacked area
  
- Doughnut
  
- Exploded doughnut
  
- Radar
  
- Radar with markers
  
- Filled radar
  
- 3D surface
- Wireframe 3D surface
- Contour
- Wireframe contour
  
- Bubbles
  
- Bubbles with 3D effect
  
- Stock high-low-close
- Stock open-high-low-close
- Stock volume-high-low-close
- Stock volume-open-high-low-close
  
- Column with a cylindrical shape
- Stacked column with a cylindrical shape
- 100% stacked column with a cylindrical shape
- Bar with a cylindrical shape
- Stacked bar with a cylindrical shape
- 100% stacked bar with a cylindrical shape
- 3D column with a cylindrical shape
  
- Column with a conical shape
- Stacked column with a conical shape
- 100% stacked column with a conical shape
- Bar with a conical shape
- Stacked bar with a conical shape
- 100% stacked bar with a conical shape
- 3D column with a conical shape
  
- Column with a pyramid shape
- Stacked column with a pyramid shape
- 100% stacked column with a pyramid shape
- Bar with a pyramid shape
- Stacked bar with a pyramid shape
- 100% stacked bar with a pyramid shape
- 3D column with a pyramid shape

### Chart Area

- Border style, weight and color
- Shadow
- Background & foreground
- Font font name, font size, bold, italic, underline, strikethrough, superscript & subscript

### Plot Area

- Border style, weight and color
- Background

### Series

- Series name
- Series values
- Border style, weight and color
- Background
- Shadow
- Data labels
- Markers

### Category X Axis Labels

- As text
- As range formula

### Legend

- Placement
- Key direction
- Font font name, font size, bold, italic, underline, strikethrough, superscript & subscript
- Border style, weight and color
- Background & foreground
- Shadow
- Show/hide

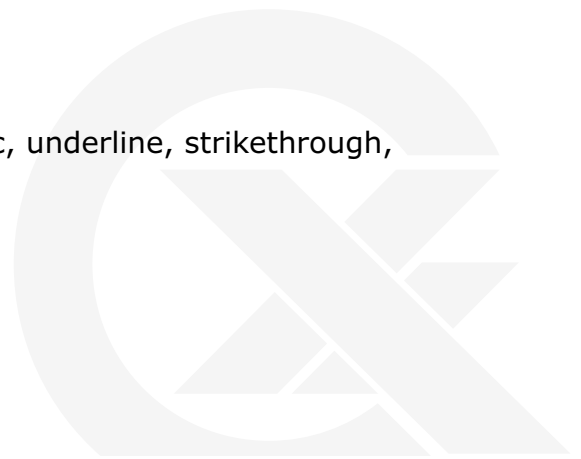
### Category X axis

- Line style, weight and color
- Major tick mark type
- Minor tick mark type
- Tick mark labels
- Scale options
- Font font name, font size, bold, italic, underline, strikethrough, superscript & subscript
- Foreground
- Number format
- Rotation
- Show/hide





<b>Values Y axis</b>	<ul style="list-style-type: none"><li>Line style, weight and color</li><li>Major tick mark type</li><li>Minor tick mark type</li><li>Tick mark labels</li><li>Scale options</li><li>Font font name, font size, bold, italic, underline, strikethrough, superscript &amp; subscript</li><li>Foreground</li><li>Number format</li><li>Rotation</li><li>Show/hide</li></ul>
<b>X axis major gridlines</b>	<ul style="list-style-type: none"><li>Line style, weight and color</li><li>Show/hide</li></ul>
<b>X axis minor gridlines</b>	<ul style="list-style-type: none"><li>Line style, weight and color</li><li>Show/hide</li></ul>
<b>Chart title</b>	<ul style="list-style-type: none"><li>Text</li><li>Show/hide</li></ul>
<b>Category X axis Label</b>	<ul style="list-style-type: none"><li>Text</li><li>Show/hide</li></ul>
<b>Value Y axis Label</b>	<ul style="list-style-type: none"><li>Text</li><li>Show/hide</li></ul>
<b>Data table</b>	<ul style="list-style-type: none"><li>Line style, weight and color</li><li>Show legend keys</li><li>Show horizontal lines</li><li>Show vertical lines</li><li>Show outline lines</li><li>Font font name, font size, bold, italic, underline, strikethrough, superscript &amp; subscript</li><li>Show/hide</li></ul>



**Financial functions**

- ACCRINT
- ACCRINTM
- AMORDEGRC
- AMORLINC
- COUPDAYBS
- COUPDAYS
- COUPDAYSNC
- COUPNCD
- COUPNUM
- COUPPCD
- CUMIPMT
- CUMPRINC
- DB
- DDB
- DISC
- DOLLARDE
- DOLLARFR
- DURATION
- EFFECT
- FV
- FVSCHEDULE
- INTRATE
- IPMT
- IRR
- ISPMT
- MDURATION
- MIRR
- NOMINAL
- NPER
- NPV
- ODDFPRICE
- ODDFYIELD
- ODDLPRICE
- ODDLyield
- PMT
- PPMT
- PRICE
- PRICEDISC
- PRICEMAT
- PV
- RATE
- RECEIVED
- SLN
- SYD
- TBILLEQ
- TBILLPRICE
- TBILLYIELD

**Financial functions**

- VDB
- XIRR
- XNPV
- YIELD
- YIELDDISC
- YIELDMAT

**Logical functions**

- AND
- FALSE
- IF
- IFERROR
- NOT
- OR
- TRUE

**Lookup and Reference functions**

- ADDRESS
- AREAS
- CHOOSE
- COLUMN
- COLUMNS
- GETPIVOTDATA
- HLOOKUP
- HYPERLINK
- INDEX
- INDIRECT
- LOOKUP
- MATCH
- OFFSET
- ROW
- ROWS
- RTD
- TRANSPOSE
- VLOOKUP

**Database and List Management functions**

- DAVERAGE
- DCOUNT
- DCOUNTA
- DGET
- DMAX
- DMIN
- DPRODUCT
- DSTDEV
- DSTDEVP
- DSUM
- DVAR
- DVARP

**Information functions**

- CELL
- ERROR.TYPE
- INFO
- ISBLANK
- ISERR
- ISERROR
- ISEVEN
- ISLOGICAL
- ISNA
- ISNONTEXT
- ISNUMBER
- ISODD
- ISREF
- ISTEXT
- N
- NA
- TYPE

**Math and Trigonometry functions**

- ABS
- ACOS
- ACOSH
- ASIN
- ASINH
- ATAN
- ATAN2
- ATANH
- CEILING
- COMBIN
- COS
- COSH
- DEGREES
- EVEN
- EXP
- FACT
- FACTDOUBLE
- FLOOR
- GCD
- INT
- LCM
- LN
- LOG
- LOG10
- MDETERM
- MINVERSE
- MMULT
- MOD

- MROUND
- MULTINOMIAL
- ODD
- PI
- POWER
- PRODUCT
- QUOTIENT
- RADIANS
- RAND
- RANDBETWEEN
- ROMAN
- ROUND
- ROUNDDOWN
- ROUNDUP
- SERIESSUM
- SIGN
- SIN
- SINH
- SQRT
- SQRTPI
- SUBTOTAL
- SUM
- SUMIF
- SUMIFS
- SUMPRODUCT
- SUMSQ
- SUMX2MY2
- SUMX2PY2
- SUMXMY2
- TAN
- TANH
- TRUNC

**Math and Trigonometry functions**

**Statistical functions**

- AVEDEV
- AVERAGE
- AVERAGEA
- AVERAGEIF
- AVERAGEIFS
- BETADIST
- BETAINV
- BINOMDIST
- CHIDIST
- CHIINV
- CHITEST
- CONFIDENCE
- CORREL
- COUNT
- COUNTA
- COUNTBLANK
- COUNTIF
- COUNTIFS
- COVAR
- CRITBINOM
- DEVSQ
- EXPONDIST
- FDIST
- FINV
- FISHER
- FISHERINV
- FORECAST
- FREQUENCY
- FTEST
- GAMMADIST
- GAMMAINV
- GAMMALN
- GEOMEAN
- GROWTH
- HARMEAN
- HYPGEOMDIST
- INTERCEPT
- KURT
- LARGE
- LINEST
- LOGEST
- LOGINV
- LOGNORMDIST
- MAX
- MAXA
- MEDIAN
- MIN

**Statistical functions**

- MINA
- MODE
- NEGBINOMDIST
- NORMDIST
- NORMINV
- NORMSDIST
- NORMSINV
- PEARSON
- PERCENTILE
- PERCENTRANK
- PERMUT
- POISSON
- PROB
- QUARTILE
- RANK
- RSQ
- SKEW
- SLOPE
- SMALL
- STANDARDIZE
- STDEV
- STDEVA
- STDEVPP
- STDEVPA
- STEYX
- TDIST
- TINV
- TREND
- TRIMMEAN
- TTEST
- VAR
- VARA
- VARP
- VARPA
- WEIBULL
- ZTEST



**Text functions**

- BAHTTEXT
- CHAR
- CLEAN
- CODE
- CONCATENATE
- DOLLAR
- EXACT
- FIND
- FIXED
- LEFT
- LEN
- LOWER
- MID
- PROPER
- REPLACE
- REPT
- RIGHT
- SEARCH
- SUBSTITUTE
- T
- TEXT
- TRIM
- UPPER
- VALUE

**Date and Time functions**

- DATE
- DATEVALUE
- DAY
- DAYS360
- EDATE
- EOMONTH
- HOUR
- MINUTE
- MONTH
- NETWORKDAYS
- NOW
- SECOND
- TIME
- TIMEVALUE
- TODAY
- WEEKDAY
- WEEKNUM
- WORKDAY
- YEAR
- YEARFRAC

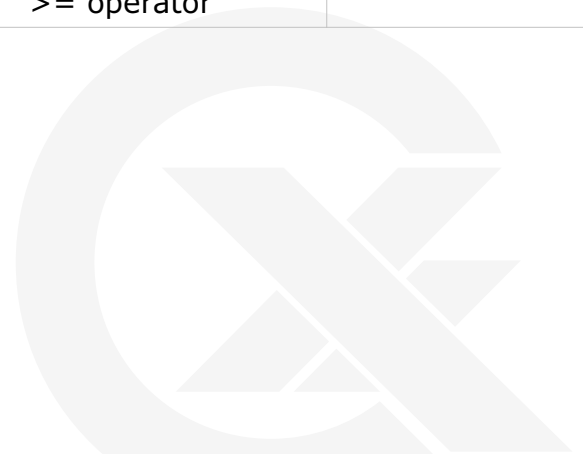
**Engineering functions**

- BESSELI
- BESSELJ
- BESSELK
- BESSELY
- BIN2DEC
- BIN2HEX
- BIN2OCT
- COMPLEX
- CONVERT
- DEC2BIN
- DEC2HEX
- DEC2OCT
- DELTA
- ERF
- ERFC
- GESTEP
- HEX2BIN
- HEX2DEC
- HEX2OCT
- IMABS
- IMAGINARY
- IMARGUMENT
- IMCONJUGATE
- IMCOS
- IMDIV
- IMEXP
- IMLN
- IMLOG10
- IMLOG2
- IMPOWER
- IMPRODUCT
- IMREAL
- IMSIN
- IMSQRT
- IMSUB
- IMSUM
- OCT2BIN
- OCT2DEC
- OCT2HEX

**Add-in and Automation functions**

- CALL
- GETPIVOTDATA

	Function	Implementation Of	
	CONCAT_RANGE	~ operator	
	UNION_RANGE	, operator	
	INTERSECT_RANGE	operator	
	SUM_OPERATOR	+ operator	
	SUBTRACT_OPERATOR	- operator	
	MINUS	- unary operator	
	DIVIDE	/ operator	
	MULTIPLY	* operator	
	PERCENT_OPERATOR	% unary operator	
	CONCATENATE	& operator	
	POWER	^ operator	
	EQUAL_OPERATOR	= operator	
	NOTEQUAL_OPERATOR	<> operator	
	LESS_OPERATOR	< operator	
	LESSEQ_OPERATOR	<= operator	
	GREATER_OPERATOR	> operator	
	GREATEREQUAL	>= operator	





## Supported Excel features

Feature	Professional	Writer	Reader	Express Writer
Cell values	+	+	+	+
Multiple worksheets	+	+	+	-
Formulas	+	+	+	+
Formula computation engine	+	+	+	-
Format cells	+	+	+	-
Auto-formats	+	+	+	+
File properties	+	+	+	-
Conditional formatting	+	+	+	-
Hyperlinks	+	+	+	-
Comments	+	+	+	-
Names	+	+	+	-
Images	+	+	+	-
Named ranges	+	+	+	-
Data validation	+	+	+	-
Header & footer	+	+	+	-
Page Setup options	+	+	+	-
Page breaks	+	+	+	-
Row & column dimension	+	+	+	-
Group and outline levels	+	+	+	-
Split and freeze panes	+	+	+	-
Filter and AutoFilter	+	+	+	-
VB and macros	+	-	-	-
Pivot Tables	+	-	-	-
Charts	+	+	+	-
Encryption and password protection	+	+	+	+
Save XLS	+	+	-	+
Save XLSX	+	+	-	-



## Supported Excel features

Feature	Professional	Writer	Reader	Express Writer
Save XLSB	+	+	-	+
Save TXT	+	+	-	-
Save CSV	+	+	-	-
Save HTML	+	+	-	-
Save XML	+	+	-	-
Load XLS	+	-	+	-
Load XLSX	+	-	+	-
Load XLSB	+	-	+	-
Load TXT	+	-	+	-
Load CSV	+	-	+	-
Load HTML	+	-	+	-
Load XML	+	-	+	-

