

## How to calculate auto update on cell change in C# using ByteScout Spreadsheet SDK

This code in C# shows how to calculate auto update on cell change with this how to tutorial

On this page you will learn from code samples for programming in C#. Writing of the code to calculate auto update on cell change in C# can be done by developers of any level using ByteScout Spreadsheet SDK. ByteScout Spreadsheet SDK is the library (SDK) that is capable of writing, reading, modifying and calculating Excel and CSV spreadsheets. Most popular formulas can be calculated and recalculated with Excel installed. You may import or export data to and from CSV, XML, JSON as well as to and from databases, arrays. It can calculate auto update on cell change in C#.

This code snippet below for ByteScout Spreadsheet SDK works best when you need to quickly calculate auto update on cell change in your C# application. Follow the instructions from the scratch to work and copy the C# code. This basic programming language sample code for C# will do the whole work for you to calculate auto update on cell change.

Trial version of ByteScout Spreadsheet SDK can be downloaded for free from our website. It also includes source code samples for C# and other programming languages.

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Source Code Files:

```
using System;
using System.Collections.Generic;
using System.Text;
using System.IO;

using Bytescout.Spreadsheet;

namespace Calculations
{
    class Program
    {
        static void Main(string[] args)
        {
            // Create new spreadsheet
            Spreadsheet spreadsheet = new Spreadsheet();

            // Add new worksheet
            Worksheet sheet = spreadsheet.Workbook.Worksheets.Add();

            // Get decimal separator. Decimal separator depends from locale.
            string dsep = spreadsheet.Workbook.Locale.NumberFormat.CurrencyDecimalSeparator;

            // Get list separator. List separator depends from locale.
            string lsep = spreadsheet.Workbook.Locale.TextInfo.ListSeparator;

            // Set starting row
            int rowNumber = 1;

            // Example on SIN() function in formula
            sheet.Cell(rowNumber, 0).Value = "SIN(30)";
            sheet.Cell(rowNumber, 1).Value = "=SIN(30)";

            rowNumber += 2;

            // Example on COS() function in formula
            sheet.Cell(rowNumber, 0).Value = "COS(30)";
            sheet.Cell(rowNumber, 1).Value = "=COS(30)";

            rowNumber += 2;

            // Example on TAN() function in formula
            sheet.Cell(rowNumber, 0).Value = "TAN(30)";
            sheet.Cell(rowNumber, 1).Value = "=TAN(30)";

            rowNumber += 2;

            // Example on ATAN() function in formula
            sheet.Cell(rowNumber, 0).Value = "ATAN(" + dsep + "5)";
            sheet.Cell(rowNumber, 1).Value = "=ATAN(" + dsep + "5)";

            rowNumber += 2;

            // Example on ATAN2() function in formula
            sheet.Cell(rowNumber, 0).Value = "ATAN2(" + dsep + "3" + lsep + "0.1)";
            sheet.Cell(rowNumber, 1).Value = "=ATAN2(" + dsep + "3" + lsep + "0.1)";
        }
    }
}
```

```
rowNumber += 2;

// Example on ASIN() function in formula
sheet.Cell(rowNumber, 0).Value = "ASIN(0" + dsep + "5)";
sheet.Cell(rowNumber, 1).Value = "=ASIN(0" + dsep + "5)";

rowNumber += 2;

// Example on ACOS() function in formula
sheet.Cell(rowNumber, 0).Value = "ACOS(0" + dsep + "5)";
sheet.Cell(rowNumber, 1).Value = "=ACOS(0" + dsep + "5)";

rowNumber += 2;

// Example on EXP() function in formula
sheet.Cell(rowNumber, 0).Value = "EXP(5)";
sheet.Cell(rowNumber, 1).Value = "=EXP(5)";

rowNumber += 2;

// Example on SQRT() function in formula
sheet.Cell(rowNumber, 0).Value = "SQRT(5)";
sheet.Cell(rowNumber, 1).Value = "=SQRT(5)";

rowNumber += 2;

// Example on LN() function in formula
sheet.Cell(rowNumber, 0).Value = "LN(5)";
sheet.Cell(rowNumber, 1).Value = "=LN(5)";

rowNumber += 2;

// Example on LOG10() function in formula
sheet.Cell(rowNumber, 0).Value = "LOG10(5)";
sheet.Cell(rowNumber, 1).Value = "=LOG10(5)";

rowNumber += 2;

// Example on SUM() function in formula
sheet.Cell(rowNumber, 0).Value = "SUM(5" + lsep + "3)";
sheet.Cell(rowNumber, 1).Value = "=SUM(5" + lsep + "3)";

rowNumber += 2;

// Example on PRODUCT() function in formula
sheet.Cell(rowNumber, 0).Value = "PRODUCT(5" + lsep + "3)";
sheet.Cell(rowNumber, 1).Value = "=PRODUCT(5" + lsep + "3)";

rowNumber += 2;

// Example on VAR() function in formula
sheet.Cell(rowNumber, 0).Value = "VAR(5" + lsep + "3)";
sheet.Cell(rowNumber, 1).Value = "=VAR(5" + lsep + "3)";

rowNumber += 2;

// Example on VARP() function in formula
sheet.Cell(rowNumber, 0).Value = "VARP(5" + lsep + "3)";
sheet.Cell(rowNumber, 1).Value = "=VARP(5" + lsep + "3);
```

```
rowNumber += 2;

// Example on STDEV() function in formula
sheet.Cell(rowNumber, 0).Value = "STDEV(5" + lsep + "3)";
sheet.Cell(rowNumber, 1).Value = "=STDEV(5" + lsep + "3)";

rowNumber += 2;

// Example on STDEVP() function in formula
sheet.Cell(rowNumber, 0).Value = "STDEVP(5" + lsep + "3)";
sheet.Cell(rowNumber, 1).Value = "=STDEVP(5" + lsep + "3)";

rowNumber += 2;

// Example on AVERAGE() function in formula
sheet.Cell(rowNumber, 0).Value = "AVERAGE(50" + lsep + "30)";
sheet.Cell(rowNumber, 1).Value = "=AVERAGE(50" + lsep + "30)";

rowNumber += 2;

// Example on MIN() function in formula
sheet.Cell(rowNumber, 0).Value = "MIN(50" + lsep + "30)";
sheet.Cell(rowNumber, 1).Value = "=MIN(50" + lsep + "30)";

rowNumber += 2;

// Example on MAX() function in formula
sheet.Cell(rowNumber, 0).Value = "MAX(50" + lsep + "30)";
sheet.Cell(rowNumber, 1).Value = "=MAX(50" + lsep + "30)";

rowNumber += 2;

// Example on PI() function in formula
sheet.Cell(rowNumber, 0).Value = "PI()";
sheet.Cell(rowNumber, 1).Value = "=PI()";

rowNumber += 2;

// Example on ABS() function in formula
sheet.Cell(rowNumber, 0).Value = "ABS(-5)";
sheet.Cell(rowNumber, 1).Value = "=ABS(-5)";

rowNumber += 2;

// Example on RAND() function in formula
sheet.Cell(rowNumber, 0).Value = "RAND()";
sheet.Cell(rowNumber, 1).Value = "=RAND()";

rowNumber += 2;

// Example on MOD() function in formula
sheet.Cell(rowNumber, 0).Value = "MOD(10" + dsep + "8" + lsep + "2)";
sheet.Cell(rowNumber, 1).Value = "=MOD(10" + dsep + "8" + lsep + "2)";

rowNumber += 2;

// Example on INT() function in formula
sheet.Cell(rowNumber, 0).Value = "INT(10" + dsep + "8)";
sheet.Cell(rowNumber, 1).Value = "=INT(10" + dsep + "8);
```

```

rowNumber += 2;

// Example on SIGN() function in formula
sheet.Cell(rowNumber, 0).Value = "SIGN(10" + dsep + "8)";
sheet.Cell(rowNumber, 1).Value = "=SIGN(10" + dsep + "8)";

rowNumber += 2;

// Example on ROUND() function in formula
sheet.Cell(rowNumber, 0).Value = "ROUND(10" + dsep + "862456" + lsep + "4)";
sheet.Cell(rowNumber, 1).Value = "=ROUND(10" + dsep + "862456" + lsep + "4)";

rowNumber += 2;

// Example on RADIANS() function in formula
sheet.Cell(rowNumber, 0).Value = "RADIANS(180)";
sheet.Cell(rowNumber, 1).Value = "=RADIANS(180)";

rowNumber += 2;

// Example on DEGREES() function in formula
sheet.Cell(rowNumber, 0).Value = "DEGREES(3" + dsep + "14)";
sheet.Cell(rowNumber, 1).Value = "=DEGREES(3" + dsep + "14)";

rowNumber += 2;

// Example on LEN() function in formula
sheet.Cell(rowNumber, 0).Value = "LEN(\"Bytescout\")";
sheet.Cell(rowNumber, 1).Value = "=LEN(\"Bytescout\")";

rowNumber += 2;

// Example on MID() function in formula
sheet.Cell(rowNumber, 0).Value = "MID(\"Bytescout\"" + lsep + "5" + lsep +
sheet.Cell(rowNumber, 1).Value = "=MID(\"Bytescout\"" + lsep + "5" + lsep - 1);

rowNumber += 2;

// Example on NOW() function in formula
sheet.Cell(rowNumber, 0).Value = "NOW()";
sheet.Cell(rowNumber, 1).Value = "=NOW()";

rowNumber += 2;

// Example on DATE() function in formula
sheet.Cell(rowNumber, 0).Value = "DATE(2009" + lsep + "1" + lsep + "2)";
sheet.Cell(rowNumber, 1).Value = "=DATE(2009" + lsep + "1" + lsep + "2)";

rowNumber += 2;

// Example on TIME() function in formula
sheet.Cell(rowNumber, 0).Value = "TIME(1" + lsep + "1" + lsep + "2)";
sheet.Cell(rowNumber, 1).Value = "=TIME(1" + lsep + "1" + lsep + "2)";

rowNumber += 2;

// Example on SECOND() function in formula
sheet.Cell(rowNumber, 0).Value = "SECOND(\"18:45:02\")";
sheet.Cell(rowNumber, 1).Value = "=SECOND(\"18:45:02\")";

```

```
rowNumber += 2;

// Example on MINUTE() function in formula
sheet.Cell(rowNumber, 0).Value = "MINUTE(\"18:45:02\")";
sheet.Cell(rowNumber, 1).Value = "=MINUTE(\"18:45:02\")";

rowNumber += 2;

// Example on HOUR() function in formula
sheet.Cell(rowNumber, 0).Value = "HOUR(\"18:45:02\")";
sheet.Cell(rowNumber, 1).Value = "=HOUR(\"18:45:02\")";

rowNumber += 2;

// Example on YEAR() function in formula
sheet.Cell(rowNumber, 0).Value = "YEAR(NOW())";
sheet.Cell(rowNumber, 1).Value = "=YEAR(NOW())";

rowNumber += 2;

// Example on MONTH() function in formula
sheet.Cell(rowNumber, 0).Value = "MONTH(NOW())";
sheet.Cell(rowNumber, 1).Value = "=MONTH(NOW())";

rowNumber += 2;

// Example on DAY() function in formula
sheet.Cell(rowNumber, 0).Value = "DAY(NOW())";
sheet.Cell(rowNumber, 1).Value = "=DAY(NOW())";

rowNumber += 2;

// Example on WEEKDAY() function in formula
sheet.Cell(rowNumber, 0).Value = "WEEKDAY(NOW())";
sheet.Cell(rowNumber, 1).Value = "=WEEKDAY(NOW())";

rowNumber += 2;

// Example on FALSE in formula
sheet.Cell(rowNumber, 0).Value = "FALSE";
sheet.Cell(rowNumber, 1).Value = "=FALSE";

rowNumber += 2;

// Example on TRUE in formula
sheet.Cell(rowNumber, 0).Value = "TRUE";
sheet.Cell(rowNumber, 1).Value = "=TRUE";

rowNumber += 2;

// Example on AND() function in formula
sheet.Cell(rowNumber, 0).Value = "AND";
sheet.Cell(rowNumber, 1).Value = "=AND(10>1" + lsep + "10<100)";

rowNumber += 2;

// Example on OR() function in formula
sheet.Cell(rowNumber, 0).Value = "OR(10>1" + lsep + "10<100)";
sheet.Cell(rowNumber, 1).Value = "=OR(10>1" + lsep + "10<100)";
```

```

rowNumber += 2;

// Example on NOT() function in formula
sheet.Cell(rowNumber, 0).Value = "NOT(1+1=2)";
sheet.Cell(rowNumber, 1).Value = "=NOT(1+1=2)";

rowNumber += 2;

// Example on ISNA() function in formula
sheet.Cell(rowNumber, 0).Value = "ISNA(NA())";
sheet.Cell(rowNumber, 1).Value = "=ISNA(NA())";

rowNumber += 2;

// Example on NA() function in formula
sheet.Cell(rowNumber, 0).Value = "NA()";
sheet.Cell(rowNumber, 1).Value = "=NA()";

rowNumber += 2;

// Example on ISERROR() function in formula
sheet.Cell(rowNumber, 0).Value = "ISERROR(1/0)";
sheet.Cell(rowNumber, 1).Value = "=ISERROR(1/0)";

rowNumber += 2;

// Example on ROW() function in formula
sheet.Cell(rowNumber, 0).Value = "ROW()";
sheet.Cell(rowNumber, 1).Value = "=ROW()";

rowNumber += 2;

// Example on COLUMN() function in formula
sheet.Cell(rowNumber, 0).Value = "COLUMN()";
sheet.Cell(rowNumber, 1).Value = "=COLUMN()";

rowNumber += 2;

// Example on COUNT() function in formula
sheet.Cell(rowNumber, 0).Value = "COUNT(B1:B10)";
sheet.Cell(rowNumber, 1).Value = "=COUNT(B1:B10)";

rowNumber += 2;

// Example on COUNTA() function in formula
sheet.Cell(rowNumber, 0).Value = "COUNTA(B1:B10)";
sheet.Cell(rowNumber, 1).Value = "=COUNTA(B1:B10)";

rowNumber += 2;

// Example on COUNTAC() function in formula
sheet.Cell(rowNumber, 0).Value = "IF(1=1" + lsep + "TRUE" + lsep + "FALSE)";
sheet.Cell(rowNumber, 1).Value = "=IF(1=1" + lsep + "TRUE" + lsep + "FALSE)";

rowNumber += 2;

// Example on COUNTAC() function in formula
sheet.Cell(rowNumber, 0).Value = "NPV(10%" + lsep + "10000" + lsep + "1000";
sheet.Cell(rowNumber, 1).Value = "=NPV(10%" + lsep + "10000" + lsep + "1000"

```

```
try
{
    System.IO.File.Delete("output.xls");
}
catch (Exception ex)
{
}

spreadsheet.SaveAs("output.xls");

spreadsheet.Close();

System.Diagnostics.Process.Start("output.xls");
}

}

}
```

---

## VIDEO

[https://www.youtube.com/watch?v=nm\\_7I0PN1TY](https://www.youtube.com/watch?v=nm_7I0PN1TY)

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