

## How to select region and perform OCR in C# with ByteScout PDF Suite

Learn to code in C# to select region and perform OCR with this step-by-step tutorial

The sample source code below will teach you how to select region and perform OCR in C#. ByteScout PDF Suite: the set that includes 6 SDK products to work with PDF from generating rich PDF reports to extracting data from PDF documents and converting them to HTML. This bundle includes PDF (Generator) SDK, PDF Renderer SDK, PDF Extractor SDK, PDF to HTML SDK, PDF Viewer SDK and PDF Generator SDK for Javascript. It can select region and perform OCR in C#.

Want to quickly learn? This fast application programming interfaces of ByteScout PDF Suite for C# plus the guidelines and the code below will help you quickly learn how to select region and perform OCR. Just copy and paste the code into your C# application's code and follow the instructions. Enjoy writing a code with ready-to-use sample C# codes.

The trial version of ByteScout PDF Suite can be downloaded for free from our website. It also includes source code samples for C# and other programming languages.

FOR MORE INFORMATION AND FREE TRIAL:

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### Source Code Files:

Form1.Designer.cs

```

namespace SelectRegionAndPerformOCR
{
    partial class Form1
    {
        /// <summary>
        /// Required designer variable.
        /// </summary>
        private System.ComponentModel.IContainer components = null;

        /// <summary>
        /// Clean up any resources being used.
        /// </summary>
        /// <param name="disposing">true if managed resources should be disposed; otherwise, if false, only unmanaged resources will be disposed.
        protected override void Dispose(bool disposing)
        {
            if (disposing && (components != null))
            {
                components.Dispose();
            }
            base.Dispose(disposing);
        }

        #region Windows Form Designer generated code

        /// <summary>
        /// Required method for Designer support - do not modify
        /// the contents of this method with the code editor.
        /// </summary>
        private void InitializeComponent()
        {
            System.ComponentModel.ComponentResourceManager resources = new System.Compo
            this.toolStrip1 = new System.Windows.Forms.ToolStrip();
            this.toolStripButton1 = new System.Windows.Forms.ToolStripButton();
            this.pdfViewerControl1 = new Bytescout.PDFViewer.PDFViewerControl();
            this.btnRunOCR = new System.Windows.Forms.Button();
            this.label1 = new System.Windows.Forms.Label();
            this.toolStrip1.SuspendLayout();
            this.SuspendLayout();
            //
            // toolStrip1
            //
            this.toolStrip1.Items.AddRange(new System.Windows.Forms.ToolStripItem[] {
            this.toolStripButton1});
            this.toolStrip1.Location = new System.Drawing.Point(0, 0);
            this.toolStrip1.Name = "toolStrip1";
            this.toolStrip1.Size = new System.Drawing.Size(971, 25);
            this.toolStrip1.TabIndex = 0;
            this.toolStrip1.Text = "toolStrip1";
            //
            // toolStripButton1
            //
            this.toolStripButton1.Font = new System.Drawing.Font("Tahoma", 8.25F, Syst
            this.toolStripButton1.Image = ((System.Drawing.Image)(resources.GetObject(
            this.toolStripButton1.ImageTransparentColor = System.Drawing.Color.Magenta
            this.toolStripButton1.Name = "toolStripButton1";
            this.toolStripButton1.Size = new System.Drawing.Size(114, 22);
            this.toolStripButton1.Text = "Load document";
            this.toolStripButton1.Click += new System.EventHandler(this.toolStripButton
    }
}

```

```

//
// pdfViewerControl1
//
this.pdfViewerControl1.Anchor = ((System.Windows.Forms.AnchorStyles)((System.Windows.Forms.AnchorStyles.Left | System.Windows.Forms.AnchorStyles.Right)));
this.pdfViewerControl1.BorderStyle = System.Windows.Forms.BorderStyle.Fixed3D;
this.pdfViewerControl1.Location = new System.Drawing.Point(12, 28);
this.pdfViewerControl1.MouseMode = Bytescout.PDFViewer.MouseMode.Selection;
this.pdfViewerControl1.Name = "pdfViewerControl1";
this.pdfViewerControl1.RegistrationKey = null;
this.pdfViewerControl1.RegistrationName = null;
this.pdfViewerControl1.ResetRotationOnPageChange = false;
this.pdfViewerControl1.Scale = 100;
this.pdfViewerControl1.SelectionColor = System.Drawing.Color.Red;
this.pdfViewerControl1.ShowImageObjects = true;
this.pdfViewerControl1.ShowTextObjects = true;
this.pdfViewerControl1.ShowVectorObjects = true;
this.pdfViewerControl1.Size = new System.Drawing.Size(766, 490);
this.pdfViewerControl1.TabIndex = 1;
//
// btnRunOCR
//
this.btnRunOCR.Anchor = ((System.Windows.Forms.AnchorStyles)((System.Windows.Forms.AnchorStyles.Left | System.Windows.Forms.AnchorStyles.Right)));
this.btnRunOCR.Enabled = false;
this.btnRunOCR.Font = new System.Drawing.Font("Tahoma", 8.25F, System.Drawing.FontStyle.Regular, System.Drawing.GraphicsUnit.Point, ((byte)0));
this.btnRunOCR.Location = new System.Drawing.Point(784, 77);
this.btnRunOCR.Name = "btnRunOCR";
this.btnRunOCR.Size = new System.Drawing.Size(175, 39);
this.btnRunOCR.TabIndex = 2;
this.btnRunOCR.Text = "Run OCR";
this.btnRunOCR.UseVisualStyleBackColor = true;
this.btnRunOCR.Click += new System.EventHandler(this.btnRunOCR_Click);
//
// label1
//
this.label1.Anchor = ((System.Windows.Forms.AnchorStyles)((System.Windows.Forms.AnchorStyles.Left | System.Windows.Forms.AnchorStyles.Right)));
this.label1.Font = new System.Drawing.Font("Tahoma", 8.25F, System.Drawing.FontStyle.Regular, System.Drawing.GraphicsUnit.Point, ((byte)0));
this.label1.Location = new System.Drawing.Point(784, 28);
this.label1.Name = "label1";
this.label1.Size = new System.Drawing.Size(175, 46);
this.label1.TabIndex = 3;
this.label1.Text = "Load document, select region and press \"Run OCR\" button";
//
// Form1
//
this.AutoScaleDimensions = new System.Drawing.SizeF(6F, 13F);
this.AutoScaleMode = System.Windows.Forms.AutoScaleMode.Font;
this.ClientSize = new System.Drawing.Size(971, 530);
this.Controls.Add(this.label1);
this.Controls.Add(this.btnRunOCR);
this.Controls.Add(this.pdfViewerControl1);
this.Controls.Add(this.toolStrip1);
this.Name = "Form1";
this.StartPosition = System.Windows.Forms.FormStartPosition.CenterScreen;
this.Text = "Form1";
this.toolStrip1.ResumeLayout(false);
this.toolStrip1.PerformLayout();
this.ResumeLayout(false);
this.PerformLayout();

```

```

    }

    #endregion

    private System.Windows.Forms.ToolStrip toolStrip1;
    private System.Windows.Forms.ToolStripButton toolStripButton1;
    private Bytescout.PDFViewer.PDFViewerControl pdfViewerControl1;
    private System.Windows.Forms.Button btnRunOCR;
    private System.Windows.Forms.Label label1;
}
}

```

Form1.cs

```

using System;
using System.Drawing;
using System.Windows.Forms;
using Bytescout.PDFExtractor;

namespace SelectRegionAndPerformOCR
{
    public partial class Form1 : Form
    {
        public Form1()
        {
            InitializeComponent();
        }

        private void toolStripButton1_Click(object sender, EventArgs e)
        {
            using (OpenFileDialog openFileDialog = new OpenFileDialog())
            {
                openFileDialog.Title = @"Open Document";
                openFileDialog.Filter = @"All Supported Formats|*.pdf;*.jpg;*.jpeg;*.p

                if (openFileDialog.ShowDialog() == DialogResult.OK)
                {
                    pdfViewerControl1.InputFile = openFileDialog.FileName;

                    btnRunOCR.Enabled = true;
                }
            }
        }

        private void btnRunOCR_Click(object sender, EventArgs e)
        {
            TextExtractor extractor = new TextExtractor();
            extractor.RegistrationName = "demo";
        }
    }
}

```

```

extractor.RegistrationKey = "demo";

// Load sample PDF document
extractor.LoadDocumentFromFile(pdfViewerControl1.InputFile);

// Enable Optical Character Recognition (OCR)
// in .Auto mode (SDK automatically checks if needs to use OCR or not)
extractor.OCRMode = OCRMode.Auto;

// Set the location of "tessdata" folder containing language data files
extractor.OCRLanguageDataFolder = @"c:\Program Files\Bytescout PDF Extractor\Tesseract";

// Set OCR language
extractor.OCRLanguage = "eng"; // "eng" for english, "deu" for German, "fra" for French
// Find more language files at https://github.com/tesseract-ocr/tessdata/blob/master/README.md

// Set PDF document rendering resolution
extractor.OCRResolution = 300;

// Set the extraction area to the viewer's selection rectangle
RectangleF[] selection = pdfViewerControl1.SelectionInPoints;
if (selection.Length > 0)
    extractor.SetExtractionArea(selection[0]);

// Show wait cursor
Cursor = Cursors.WaitCursor;

try
{
    // Perform OCR and save result to file
    extractor.SavePageTextToFile(pdfViewerControl1.CurrentPageIndex, "result.txt");
}
finally
{
    // Revert cursor to default
    Cursor = Cursors.Default;
}

// Cleanup
extractor.Dispose();

// Open output file in default associated application
System.Diagnostics.Process.Start("result.txt");
}
}
}

```

Program.cs

```

using System;
using System.Collections.Generic;
using System.Linq;
using System.Windows.Forms;

namespace SelectRegionAndPerformOCR
{
    static class Program
    {
        /// <summary>
        /// The main entry point for the application.
        /// </summary>
        [STAThread]
        static void Main()
        {
            Application.EnableVisualStyles();
            Application.SetCompatibleTextRenderingDefault(false);
            Application.Run(new Form1());
        }
    }
}

```

SelectRegionAndPerformOCR.sln

```

Microsoft Visual Studio Solution File, Format Version 12.00
# Visual Studio 15
VisualStudioVersion = 15.0.27703.2047
MinimumVisualStudioVersion = 10.0.40219.1
Project("{FAE04EC0-301F-11D3-BF4B-00C04F79EFBC}") = "SelectRegionAndPerformOCR", "SelectRegionAndPerformOCR.csproj", "{6A7F695C-A9C0-4A00-8E07-57DBB26EB5EB}"
EndProject
Global
    GlobalSection(SolutionConfigurationPlatforms) = preSolution
        Debug|Any CPU = Debug|Any CPU
        Release|Any CPU = Release|Any CPU
    EndGlobalSection
    GlobalSection(ProjectConfigurationPlatforms) = postSolution
        {6A7F695C-A9C0-4A00-8E07-57DBB26EB5EB}.Debug|Any CPU.ActiveCfg = Debug|Any CPU
        {6A7F695C-A9C0-4A00-8E07-57DBB26EB5EB}.Debug|Any CPU.Build.0 = Debug|Any CPU
        {6A7F695C-A9C0-4A00-8E07-57DBB26EB5EB}.Release|Any CPU.ActiveCfg = Release|Any CPU
        {6A7F695C-A9C0-4A00-8E07-57DBB26EB5EB}.Release|Any CPU.Build.0 = Release|Any CPU
    EndGlobalSection
    GlobalSection(SolutionProperties) = preSolution
        HideSolutionNode = FALSE
    EndGlobalSection
    GlobalSection(ExtensibilityGlobals) = postSolution
        SolutionGuid = {B4740E27-9001-4E5D-AABF-0EE4D43A2AC8}
    EndGlobalSection
EndGlobal

```

VIDEO

<https://www.youtube.com/watch?v=NEwNs2b9YN8>

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