

How to decode macro PDF 417 in C# with ByteScout BarCode Reader SDK

ByteScout BarCode Reader SDK is the SDK for barcode decoding. Can read all popular types from Code 128, GS1, UPC and Code 39 to QR Code, Datamatrix, PDF417. Images, pdf, TIF images and live web camera are supported as input. Designed to handle documents with noise and defects. Includes optional splitter and merger for pdf and tiff based on barcodes. Batch mode is optimized for high performance with multiple threads. Decoded values can be exported to XML, JSON, CSV or into custom data format.

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Source Code Files:

Program.cs

```
using System;
using System.Collections.Generic;
using System.IO;
using System.Linq;
using System.Text;
using ByteScout.BarCodeReader;

namespace ReadMacroPDF417
{
    class Program
    {
        static void Main()
```

```

{
    // Input Image files
    var ImageFiles = new string[] { "MacroPDFBarcode-part1.png", "MacroPDFBarcode-part2.png", "MacroPDFBarcode-part3.png" };

    // Create Instance of Macro PDF 417 class
    var oMacroPDF417Values = new MacroPDF417Values();

    // Loop through input files to get value
    foreach (string itmInput in ImageFiles)
    {
        using (var reader = new Reader("demo", "demo"))
        {
            /* -----
            NOTE: We can read barcodes from specific page to increase performance.
            For sample please refer to "Decoding barcodes from PDF by pages" program.
            ----- */

            // Set barcode type to find
            reader.BarcodeTypesToFind.PDF417 = true;

            // Read barcodes
            Console.WriteLine("Reading barcode(s) from image {0}", Path.GetFullPath(itmInput));
            FoundBarcode[] barcodes = reader.ReadFrom(itmInput);

            foreach (FoundBarcode barcode in barcodes)
            {
                Console.WriteLine("Found Value: " + barcode.Value + "\n");

                // Add found barcode value
                oMacroPDF417Values.AddValue(barcode.Value);
            }
        }
    }

    // Get MacroPDF417 output value
    var outputValue = oMacroPDF417Values.GetValue();

    Console.WriteLine("\n\nConsolidated Output Value: " + outputValue);

    Console.WriteLine("\n\nPress any key to exit..");
    Console.ReadKey();
}

public class MacroPDF417Values
{
    #region Constructors and Properties

    public MacroPDF417Values() { IstSegments = new List<MacroPDFSegment>(); }

    public List<MacroPDFSegment> IstSegments { get; set; }

    #endregion

    #region Methods

    /// <summary>
    /// Add Value
    /// </summary>
    public void AddValue(string strValue)
    {
        IstSegments.Add(new MacroPDFSegment(strValue));
    }

    /// <summary>
    /// Get value
    /// </summary>
    public string GetValue()
    {
        var retVal = new StringBuilder("");

        foreach (var itmSegment in IstSegments.Where(x => x.SegmentNo > 0).OrderBy(x => x.SegmentNo))
        {
            retVal.Append(itmSegment.SegmentValue);
        }

        return retVal.ToString();
    }
}

```

```

#endregion
}

public class MacroPDFSegment
{
    #region Constructors and Declarations

    public MacroPDFSegment() {}
    public MacroPDFSegment(string inpValue)
    {
        if (!string.IsNullOrEmpty(inpValue))
        {
            Segments = inpValue.Split("\n");
        }
    }

    private string[] Segments { get; set; }

    /// <summary>
    /// Get Segment Index
    /// </summary>
    public int SegmentNo
    {
        get
        {
            int retSegmentValue = -1;
            var segmentVal = GetSegmentValue(2);

            if (!string.IsNullOrEmpty(segmentVal))
            {
                int.TryParse(segmentVal, out retSegmentValue);
            }

            return retSegmentValue;
        }
    }

    /// <summary>
    /// Get Segment Value
    /// </summary>
    public string SegmentValue
    {
        get
        {
            return GetSegmentValue(1);
        }
    }

    #endregion

    #region Methods

    /// <summary>
    /// Get Segment Value
    /// </summary>
    public string GetSegmentValue(int segmentNo)
    {
        if (Segments != null && Segments.Length >= segmentNo)
        {
            return Segments[segmentNo - 1];
        }

        return "";
    }

    #endregion
}
}

```

ReadMacroPDF417.NETCore.csproj

```

<?xml version="1.0" encoding="utf-8"?>
<Project Sdk="Microsoft.NET.Sdk">
  <PropertyGroup>
    <OutputType>Exe</OutputType>
    <TargetFramework>netcoreapp2.0</TargetFramework>
    <EnableDefaultCompileItems>>false</EnableDefaultCompileItems>
    <GenerateAssemblyCompanyAttribute>>false</GenerateAssemblyCompanyAttribute>
    <GenerateAssemblyConfigurationAttribute>>false</GenerateAssemblyConfigurationAttribute>
    <GenerateAssemblyFileVersionAttribute>>false</GenerateAssemblyFileVersionAttribute>
    <GenerateAssemblyInformationalVersionAttribute>>false</GenerateAssemblyInformationalVersionAttribute>
    <GenerateAssemblyProductAttribute>>false</GenerateAssemblyProductAttribute>
    <GenerateAssemblyTitleAttribute>>false</GenerateAssemblyTitleAttribute>
    <GenerateAssemblyVersionAttribute>>false</GenerateAssemblyVersionAttribute>
    <GenerateAssemblyCopyrightAttribute>>false</GenerateAssemblyCopyrightAttribute>
    <GenerateAssemblyTrademarkAttribute>>false</GenerateAssemblyTrademarkAttribute>
    <GenerateAssemblyCultureAttribute>>false</GenerateAssemblyCultureAttribute>
    <GenerateAssemblyDescriptionAttribute>>false</GenerateAssemblyDescriptionAttribute>
  </PropertyGroup>
  <ItemGroup>
    <Compile Include="Program.cs" />
    <None Include="MacroPDFBarcode-part1.png">
      <CopyToOutputDirectory>Always</CopyToOutputDirectory>
    </None>
    <None Include="MacroPDFBarcode-part2.png">
      <CopyToOutputDirectory>Always</CopyToOutputDirectory>
    </None>
    <None Include="MacroPDFBarcode-part3.png">
      <CopyToOutputDirectory>Always</CopyToOutputDirectory>
    </None>
  </ItemGroup>
  <ItemGroup>
    <PackageReference Include="Microsoft.Windows.Compatibility" Version="2.0.0" />
  </ItemGroup>
  <ItemGroup>
    <Reference Include="Bytescout.BarCodeReader">
      <SpecificVersion>False</SpecificVersion>
      <HintPath>c:\Program Files\Bytescout Bar Code Reader SDK\netcoreapp2.0\Bytescout.BarCodeReader.dll</HintPath>
    </Reference>
  </ItemGroup>
</Project>

```

ReadMacroPDF417.VS2005.csproj

```

<Project DefaultTargets="Build" xmlns="http://schemas.microsoft.com/developer/msbuild/2003">
  <PropertyGroup>
    <Configuration Condition="'$(Configuration)' == ''">Debug</Configuration>
    <Platform Condition="'$(Platform)' == ''">AnyCPU</Platform>
    <ProductVersion>8.0.50727</ProductVersion>
    <SchemaVersion>2.0</SchemaVersion>
    <ProjectGuid>{C664E764-C424-4CD5-AF69-F6B05FB17BA8}</ProjectGuid>
    <OutputType>Exe</OutputType>
    <RootNamespace>ReadMacroPDF417</RootNamespace>
    <AssemblyName>ReadMacroPDF417</AssemblyName>
  </PropertyGroup>
  <PropertyGroup Condition="'$(Configuration)|$(Platform)' == 'Debug|AnyCPU' ">
    <DebugSymbols>>true</DebugSymbols>
    <DebugType>full</DebugType>
    <Optimize>>false</Optimize>
    <OutputPath>bin\Debug</OutputPath>
    <DefineConstants>DEBUG;TRACE</DefineConstants>
    <ErrorReport>prompt</ErrorReport>
    <WarningLevel>4</WarningLevel>
  </PropertyGroup>

```

```

</PropertyGroup>
<PropertyGroup Condition=" '$(Configuration)|$(Platform)' == 'Release|AnyCPU' ">
  <DebugType>pdonly</DebugType>
  <Optimize>>true</Optimize>
  <OutputPath>bin\Release\</OutputPath>
  <DefineConstants>TRACE</DefineConstants>
  <ErrorReport>prompt</ErrorReport>
  <WarningLevel>4</WarningLevel>
</PropertyGroup>
<ItemGroup>
  <Reference Include="Bytescout.BarCodeReader, Version=8.20.0.1340, Culture=neutral, PublicKeyToken=f7dd1bd
    <SpecificVersion>False</SpecificVersion>
    <HintPath>C:\Program Files\Bytescout Bar Code Reader SDK\net2.0\Bytescout.BarCodeReader.dll</HintPath>
  </Reference>
  <Reference Include="System" />
  <Reference Include="System.Data" />
  <Reference Include="System.Drawing" />
  <Reference Include="System.Xml" />
</ItemGroup>
<ItemGroup>
  <Compile Include="Program.cs" />
</ItemGroup>
<ItemGroup>
  <Content Include="MacroPDFBarcode-part1.png">
    <CopyToOutputDirectory>Always</CopyToOutputDirectory>
  </Content>
  <Content Include="MacroPDFBarcode-part2.png">
    <CopyToOutputDirectory>Always</CopyToOutputDirectory>
  </Content>
  <Content Include="MacroPDFBarcode-part3.png">
    <CopyToOutputDirectory>Always</CopyToOutputDirectory>
  </Content>
</ItemGroup>
<Import Project="$(MSBuildBinPath)\Microsoft.CSharp.targets" />
<!-- To modify your build process, add your task inside one of the targets below and uncomment it.
  Other similar extension points exist, see Microsoft.Common.targets.
  <Target Name="BeforeBuild">
  </Target>
  <Target Name="AfterBuild">
  </Target>
-->
</Project>

```

ReadMacroPDF417.VS2008.csproj

```

<Project DefaultTargets="Build" xmlns="http://schemas.microsoft.com/developer/msbuild/2003" ToolsVersion="3.5">
  <PropertyGroup>
    <Configuration Condition=" '$(Configuration)' == '' ">Debug</Configuration>
    <Platform Condition=" '$(Platform)' == '' ">AnyCPU</Platform>
    <ProductVersion>9.0.30729</ProductVersion>
    <SchemaVersion>2.0</SchemaVersion>
    <ProjectGuid>{C664E764-C424-4CD5-AF69-F6B05FB17BA8}</ProjectGuid>
    <OutputType>Exe</OutputType>
    <RootNamespace>ReadMacroPDF417</RootNamespace>
    <AssemblyName>ReadMacroPDF417</AssemblyName>
    <OldToolsVersion>2.0</OldToolsVersion>
    <TargetFrameworkVersion>v3.5</TargetFrameworkVersion>
  </PropertyGroup>
  <PropertyGroup Condition=" '$(Configuration)|$(Platform)' == 'Debug|AnyCPU' ">
    <DebugSymbols>>true</DebugSymbols>
    <DebugType>full</DebugType>
    <Optimize>>false</Optimize>
    <OutputPath>bin\Debug\</OutputPath>
    <DefineConstants>DEBUG;TRACE</DefineConstants>
    <ErrorReport>prompt</ErrorReport>
    <WarningLevel>4</WarningLevel>
  </PropertyGroup>

```

```

<PropertyGroup Condition=" '$(Configuration)$(Platform)' == 'Release|AnyCPU' ">
  <DebugType>pdbonly</DebugType>
  <Optimize>>true</Optimize>
  <OutputPath>bin\Release\</OutputPath>
  <DefineConstants>TRACE</DefineConstants>
  <ErrorReport>prompt</ErrorReport>
  <WarningLevel>4</WarningLevel>
</PropertyGroup>
<ItemGroup>
  <Reference Include="Bytescout.BarCodeReader, Version=8.20.0.1340, Culture=neutral, PublicKeyToken=f7dd1bd
    <SpecificVersion>False</SpecificVersion>
    <HintPath>C:\Program Files\Bytescout BarCode Reader SDK\net3.5\Bytescout.BarCodeReader.dll</HintPath>
  </Reference>
  <Reference Include="System" />
  <Reference Include="System.Data" />
  <Reference Include="System.Drawing" />
  <Reference Include="System.Xml" />
</ItemGroup>
<ItemGroup>
  <Compile Include="Program.cs" />
</ItemGroup>
<ItemGroup>
  <Content Include="MacroPDFBarcode-part1.png">
    <CopyToOutputDirectory>Always</CopyToOutputDirectory>
  </Content>
  <Content Include="MacroPDFBarcode-part2.png">
    <CopyToOutputDirectory>Always</CopyToOutputDirectory>
  </Content>
  <Content Include="MacroPDFBarcode-part3.png">
    <CopyToOutputDirectory>Always</CopyToOutputDirectory>
  </Content>
</ItemGroup>
<Import Project="$(MSBuildToolsPath)\Microsoft.CSharp.targets" />
<!-- To modify your build process, add your task inside one of the targets below and uncomment it.
  Other similar extension points exist, see Microsoft.Common.targets.
  <Target Name="BeforeBuild">
  </Target>
  <Target Name="AfterBuild">
  </Target>
-->
</Project>

```

ReadMacroPDF417.VS2010.csproj

```

<?xml version="1.0" encoding="utf-8"?>
<Project DefaultTargets="Build" xmlns="http://schemas.microsoft.com/developer/msbuild/2003" ToolsVersion="4.0">
  <PropertyGroup>
    <Configuration Condition=" '$(Configuration)' == '' ">Debug</Configuration>
    <Platform Condition=" '$(Platform)' == '' ">AnyCPU</Platform>
    <ProductVersion>
    </ProductVersion>
    <SchemaVersion>2.0</SchemaVersion>
    <ProjectGuid>{C664E764-C424-4CD5-AF69-F6B05FB17BA8}</ProjectGuid>
    <OutputType>Exe</OutputType>
    <RootNamespace>ReadMacroPDF417</RootNamespace>
    <AssemblyName>ReadMacroPDF417</AssemblyName>
    <OldToolsVersion>3.5</OldToolsVersion>
    <TargetFrameworkVersion>v4.0</TargetFrameworkVersion>
  </PropertyGroup>
  <PropertyGroup Condition=" '$(Configuration)$(Platform)' == 'Debug|AnyCPU' ">
    <DebugSymbols>>true</DebugSymbols>
    <DebugType>full</DebugType>
    <Optimize>>false</Optimize>
    <OutputPath>bin\Debug\</OutputPath>
    <DefineConstants>DEBUG;TRACE</DefineConstants>
    <ErrorReport>prompt</ErrorReport>
    <WarningLevel>4</WarningLevel>

```

```

</PropertyGroup>
<PropertyGroup Condition=" '$(Configuration)|$(Platform)' == 'Release|AnyCPU' ">
  <DebugType>pdbonly</DebugType>
  <Optimize>>true</Optimize>
  <OutputPath>bin\Release\</OutputPath>
  <DefineConstants>TRACE</DefineConstants>
  <ErrorReport>prompt</ErrorReport>
  <WarningLevel>4</WarningLevel>
</PropertyGroup>
<ItemGroup>
  <Reference Include="Bytescout.BarCodeReader, Version=8.20.0.1340, Culture=neutral, PublicKeyToken=f7dd1bd
    <SpecificVersion>False</SpecificVersion>
    <HintPath>C:\Program Files\Bytescout Bar Code Reader SDK\net4.0\Bytescout.BarCodeReader.dll</HintPath>
  </Reference>
  <Reference Include="System" />
  <Reference Include="System.Data" />
  <Reference Include="System.Drawing" />
  <Reference Include="System.Xml" />
</ItemGroup>
<ItemGroup>
  <Compile Include="Program.cs" />
</ItemGroup>
<ItemGroup>
  <Content Include="MacroPDFBarcode-part1.png">
    <CopyToOutputDirectory>Always</CopyToOutputDirectory>
  </Content>
  <Content Include="MacroPDFBarcode-part2.png">
    <CopyToOutputDirectory>Always</CopyToOutputDirectory>
  </Content>
  <Content Include="MacroPDFBarcode-part3.png">
    <CopyToOutputDirectory>Always</CopyToOutputDirectory>
  </Content>
</ItemGroup>
<Import Project="$(MSBuildToolsPath)\Microsoft.CSharp.targets" />
<!-- To modify your build process, add your task inside one of the targets below and uncomment it.
  Other similar extension points exist, see Microsoft.Common.targets.
  <Target Name="BeforeBuild">
  </Target>
  <Target Name="AfterBuild">
  </Target>
-->
</Project>

```

VIDEO

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

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