

## How to decode UPC A in C# and ByteScout BarCode Reader SDK

The tutorial shows how to decode UPC A in C#

The documentation is designed to help you to implement the features on your side. ByteScout BarCode Reader SDK is the SDK for reading of barcodes from PDF, images and live camera or video. Almost every common type like Code 39, Code 128, GS1, UPC, QR Code, Datamatrix, PDF417 and many others are supported. Supports noisy and defective images and docs. Includes optional documents splitter and merger for pdf and tiff based on found barcodess. Batch mode is supported for superior performance using multiple threads. Decoded values are easily exported to JSON, CSV, XML and to custom format. It can be used to decode UPC A using C#.

This rich sample source code in C# for ByteScout BarCode Reader SDK includes the number of functions and options you should do calling the API to decode UPC A. In order to implement the functionality, you should copy and paste this code for C# below into your code editor with your app, compile and run your application. Detailed tutorials and documentation are available along with installed ByteScout BarCode Reader SDK if you'd like to dive deeper into the topic and the details of the API.

ByteScout free trial version is available for download from our website. It includes all these programming tutorials along with source code samples.

Program.cs

```
using System;
using System.IO;
using Bytescout.BarCodeReader;

namespace ReadUPCA
{
    class Program
    {
        const string ImageFile = "UPCA.png";

        static void Main()
        {
            Console.WriteLine("Reading barcode(s) from image {0}", Path.GetFullPath(ImageFile));

            Reader reader = new Reader();
            reader.RegistrationName = "demo";
            reader.RegistrationKey = "demo";

            // Set barcode type to find
            reader.BarcodeTypesToFind.UPCA = true;
        }
    }
}
```

```

        // Read barcodes
        FoundBarcode[] barcodes = reader.ReadFrom(ImageFile);

        foreach (FoundBarcode barcode in barcodes)
        {
            Console.WriteLine("Found barcode with type '{0}' and value '{1}'", barcode.Type, barcode.Value);
        }

        // Cleanup
        reader.Dispose();

        Console.WriteLine("Press any key to exit..");
        Console.ReadKey();
    }
}
}

```

ReadUPCA.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="UPCA.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>
    </Reference>
  </ItemGroup>
</Project>

```

```
<HintPath>c:\Program Files\Bytescout BarCode Reader SDK\netcoreapp2.0\Bytescout.  
</Reference>  
</ItemGroup>  
</Project>
```

ReadUPCA.VS2005.csproj

```
<Project DefaultTargets="Build" xmlns="http://schemas.microsoft.com/developer/msbuild/  
<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>ReadUPCA</RootNamespace>  
<AssemblyName>ReadUPCA</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 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,  
<SpecificVersion>False</SpecificVersion>  
<HintPath>C:\Program Files\Bytescout BarCode Reader SDK\net2.00\Bytescout.BarCode  
</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="UPCA.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
    Other similar extension points exist, see Microsoft.Common.targets.
<Target Name="BeforeBuild">
</Target>
<Target Name="AfterBuild">
</Target>
-->
</Project>

```

ReadUPCA.VS2008.csproj

```

<Project DefaultTargets="Build" xmlns="http://schemas.microsoft.com/developer/msbuild/2003"
  <PropertyGroup>
    <Configuration Condition="'$(Configuration)' == ''">Debug</Configuration>
    <Platform Condition="'$(Platform)' == ''">AnyCPU</Platform>
    <ProductVersion>9.0.21022</ProductVersion>
    <SchemaVersion>2.0</SchemaVersion>
    <ProjectGuid>{C664E764-C424-4CD5-AF69-F6B05FB17BA8}</ProjectGuid>
    <OutputType>Exe</OutputType>
    <RootNamespace>ReadUPCA</RootNamespace>
    <AssemblyName>ReadUPCA</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,
      <SpecificVersion>False</SpecificVersion>
      <HintPath>C:\Program Files\Bytescout BarCode Reader SDK\net3.50\Bytescout.BarCode
    </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="UPCA.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
    Other similar extension points exist, see Microsoft.Common.targets.
  <Target Name="BeforeBuild">
  </Target>
  <Target Name="AfterBuild">
  </Target>
  -->
</Project>

```

ReadUPCA.VS2010.csproj

```

<?xml version="1.0" encoding="utf-8"?>
<Project DefaultTargets="Build" xmlns="http://schemas.microsoft.com/developer/msbuild/2003">
  <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>ReadUPCA</RootNamespace>
    <AssemblyName>ReadUPCA</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>
  </PropertyGroup>

```

```
<DefineConstants>TRACE</DefineConstants>
<ErrorReport>prompt</ErrorReport>
<WarningLevel>4</WarningLevel>
</PropertyGroup>
<ItemGroup>
  <Reference Include="Bytescout.BarCodeReader">
    <HintPath>C:\Program Files\Bytescout BarCode Reader SDK\net4.00\Bytescout.BarCode
  </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="UPCA.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
      Other similar extension points exist, see Microsoft.Common.targets.
<Target Name="BeforeBuild">
</Target>
<Target Name="AfterBuild">
</Target>
-->
</Project>
```

---

FOR MORE INFORMATION AND FREE TRIAL:

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