



White Paper

# BarTender's .NET SDKs

Programmatically Controlling BarTender  
using C# and VB.NET

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Before the BarTender SDKs became available, the only way to programmatically control BarTender from within other software was through BarTender's ActiveX Automation interface. This continues to be a powerful and flexible way to control BarTender. However, .NET programmers now have a faster, easier option. The BarTender .NET Software Development Kits (SDKs) include pre-written source code and extensive documentation that greatly simplify the task of writing code to control BarTender. Now, using either C# or VB.NET, you can seamlessly integrate BarTender functionality into your applications without having to write from scratch the most commonly-needed routines for automated label printing.

### ***What you get***

#### ***Sample Source Code and Project Files***

Sample applications with source code and Visual Studio project files are included and can be run from the Windows Start menu. Learn by compiling and stepping through each sample application, or copy the code to your application and customize it as desired.

#### ***Extensive Documentation***

The SDK's include complete, searchable documentation with detailed "Getting Started" sections. An exhaustive reference to the Application Programming Interface (API) includes a variety of coding examples illustrating different ways to control BarTender. The various sample applications are also thoroughly documented.

#### ***Integrated with Visual Studio***

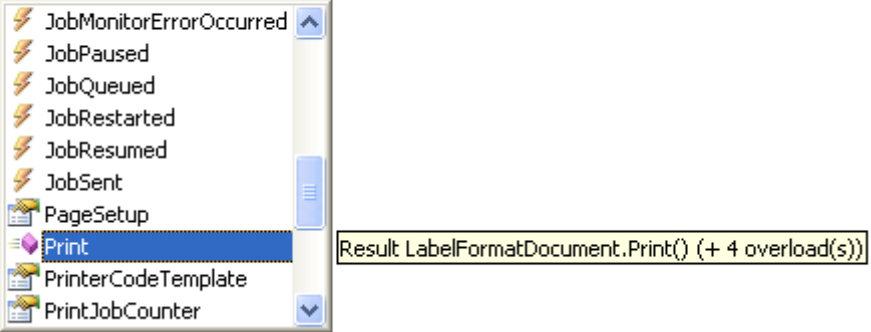
Support for Visual Studio integration features includes:

- Intellisense-assisted typing to speed up the writing of source code.
- Easy insertion of SDK assembly references into your new .NET projects.
- All referenced BarTender SDK libraries are automatically copied to your project at compile time, which simplifies the installation and distribution of your software.

Although the BarTender .NET SDKs are supported by a truly exhaustive help system, the following sequence demonstrates how the "Intellisense" feature in Microsoft's Visual Studio works with the BarTender SDKs to help you use the available library functions without your having to look them up.

```
private void PrintButton_Click(object sender, EventArgs e)
{
    using (Engine btEngine = new Engine(true))
    {
        LabelFormatDocument labelFormat
            = btEngine.Documents.Open(@"c:\Labels\BoxCodes.btw");


        labelFormat.
    }
}
```



The BarTender SDKs work with Microsoft's Visual Studio to help you rapidly build your code expressions. In this example, starting above, adding the period to the end of the "labelFormat" object causes the list of available methods and attributes to be displayed.

```
private void PrintButton_Click(object sender, EventArgs e)
{
    using (Engine btEngine = new Engine(true))
    {
        LabelFormatDocument labelFormat
            = btEngine.Documents.Open(@"c:\Labels\BoxCodes.btw");

        labelFormat.Print(|
    }
}
```



Next, choosing the Print method causes "Print" to be added to the labelFormat object. A pop-up "tip" then lets you examine the different sets of arguments available for this method.

```
private void PrintButton_Click(object sender, EventArgs e)
{
    using (Engine btEngine = new Engine(true))
    {
        LabelFormatDocument labelFormat
            = btEngine.Documents.Open(@"c:\Labels\BoxCodes.btw");

        labelFormat.Print("ShipLabs" + DateTime.Now, 15);
    }
}
```

Finally, you finish your line of code by entering expressions that comply with the requirements of one of the available list of arguments.

At this time, there are two software development kits available for use with BarTender:

- The Print SDK
- The Print Server SDK

### ***The BarTender .NET “Print SDK”***

The Print SDK provides a managed .NET interop wrapper for BarTender’s unmanaged ActiveX Automation interface. This gives you prewritten, easy-to-use methods for controlling common BarTender functions such as:

- Creating and closing instances of the BarTender application
- Opening and closing label formats
- Merging data with label formats
- Connecting label formats to databases
- Subscribing to print job events to monitor print jobs
- Monitoring print jobs by subscribing to selected print job events
- Launching print jobs

### ***Requires either the Automation or the Enterprise Automation Edition***

To use the Print SDK in production, you must have either the Automation or the Enterprise Automation edition of BarTender. (Some functions, such as printing to file or executing BarTender XML Script require the Enterprise Automation edition of BarTender. See the SDK documentation for details.)

### ***The BarTender .NET “Print Server SDK”***

BarTender’s Print Server SDK is built on top of the Print SDK and adds the advanced functions required by developers to programmatically manage high-volume, centralized label printing using BarTender. The increased scalability and the addition of task-based queue management make it easier to control large and complex label jobs. For example, printing a large number of labels is sometimes easier if you launch and manage multiple instances of the BarTender application at the same time. The Print Server SDK allows you to do this easily, adding more instances of BarTender as print demand increases.

### ***Understanding BarTender Task Queues***

When you use BarTender stand-alone, you typically sit at a computer and manually execute BarTender tasks such as printing a label format, exporting a label, and running a BarTender

XML script. In contrast, when you control BarTender programmatically using the Print Server SDK, your programs submit these tasks to a “queue” where they wait to be processed by one or more instances of BarTender. The ability of the Print Server SDK to rapidly queue tasks as fast as your applications can create them and then feed them one-by-one to an instance of BarTender as it becomes available is the key to automating high volume label printing using BarTender.

### ***Requires Enterprise Automation Edition***

To use the Print Server SDK in production, you must have the BarTender Enterprise Automation edition installed.

## ***Try Out the SDK's for Free***

The BarTender .NET SDKs are [downloadable for free](#) as part of the BarTender [Trial edition](#). (Be sure to select one of the "Full BarTender Suite" download options.)

## ***Installing the BarTender .NET SDKs***

### ***Requires BarTender version 9.01, Build 2524 or Higher***

The BarTender .NET SDKs did not begin shipping with BarTender until build 2524 was released on November 13<sup>th</sup>, 2008. If you have an older build of version 9.0 or 9.01, you can download a free service release from our web site and use it with your existing Product Key Code.

Although BarTender's .NET SDKs are installed using BarTender's regular Installer program, they are *not* installed by a default or “Typical” install. Instead, you must use the appropriate “Custom” install option:

#### ***If the BarTender Suite is not yet installed:***

1. Start the BarTender Suite Installation Wizard
2. In the BarTender Setup Type dialog, select **Custom**.
3. Expand **BarTender .NET SDKs**.
4. Select **This feature, and all subfeatures, will be installed on the local hard drive** and complete the BarTender Suite Installation Wizard.

#### ***If BarTender Suite is already installed:***

1. From the Windows **Start** menu, open the **Control Panel**.
2. Select **Add or Remove Programs**.
3. Select **BarTender** from the list of installed applications.
4. Click **Change** to open the BarTender Suite Installation Wizard.
5. Select **Modify** in the BarTender Setup Program Maintenance dialog.

6. Expand **BarTender .NET SDKs**.
7. Select **This feature, and all subfeatures, will be installed on the local hard drive** and complete the BarTender Suite Installation Wizard.

After installing the BarTender .NET SDKs, you can view the BarTender Print SDK online help and examples of how to use the available classes and methods. You can easily “copy and paste” any code example in the SDK documentation into your programs.

### ***Building .NET Projects using the BarTender .NET SDKs***

After you finish installing your BarTender SDK, please see the “Getting Started” topics in the accompanying SDK documentation.

## Available Seagull White Papers

### General White Papers

- The Advantage of Drivers by Seagull

### Companion Applications

- Printer Maestro, Part 1: Enterprise Print Management
- BarTender Security Center
- BarTender Web Print Server

### Recent Upgrades

- What's New in the Latest BarTender

### Integration White Papers

- Integration Overview
- Commander
- Commander Examples
- BarTender's .NET SDKs
- BarTender's ActiveX Automation Interface
- Exporting Printer Code Templates
- Using BarTender with Terminal Services and Citrix MetaFrame
- Integration with Oracle's WMS and MSCA
- Integration with IBM WebSphere Sensor Events
- Integration with SAP

### Miscellaneous White Papers

- Weighing Scales
- Dynamically Changing Objects at Print-Time using VB Script
- GHS Labeling
- Licensing for BarTender's Automation Editions
- Printing International Characters Using BarTender
- BarTender Software Activation
- Using BarTender's Application Identifier Wizard
- Optimizing Label Printing Performance
- Status Monitor Overview
- Silent Install

For downloadable versions, visit:

[www.seagullscientific.com/aspx/whitepapers.aspx](http://www.seagullscientific.com/aspx/whitepapers.aspx)

