

Getting Started with ZXP Series 3 Card Printer Development – ZXP3 SDK – C#

Overview

This document describes the end to end process of designing, packaging, deploying and running a C# application using the ZXP Series 3 and Series 1 SDK.

The sample code used in this Application Note is from the sample code article [Connect and Print – Zebra Card SDK for ZXP Series 1 and Series 3 Printers – C#](#).

Target Audience

The information in this Application Note document assumes you have reasonable technical competence covering Microsoft Visual Studio, core programming concepts and rationales.

Feedback

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System Requirements

The following items are required to create the ZXP3 SDK application.

ZXP Series 3 and Series 1 SDK

The following components are required and included in the ZXP Series 3 and Series 1 SDK package: Printer SDK and Graphics SDK.

[Download](#) the ZXP Series 3 and Series 1 SDK, Fill out and submit the required form.

Note: Download the 32-bit or 64-bit SDK installer, depending on your computer or project requirements.

The “Install the ZXP Series 3 and Series 1 SDK” section of this document contains instructions on how to install the SDK.

ZXP Series 1 or Series 3 Printer

In order to run a ZXP Series 3 and Series 1 SDK application, a Zebra ZXP Series 3 or Series 1 printer must be accessible from the computer.

Using the ZXP Series 3 and Series 1 SDK

This section includes information on how to:

- [Install the ZXP Series 3 and Series 1 SDK](#)
- [Create an Application Using the ZXP Series 3 and Series 1 SDK](#)
- [Design the Form Layout](#)

- [Add the Code](#)
- [Run the Application](#)

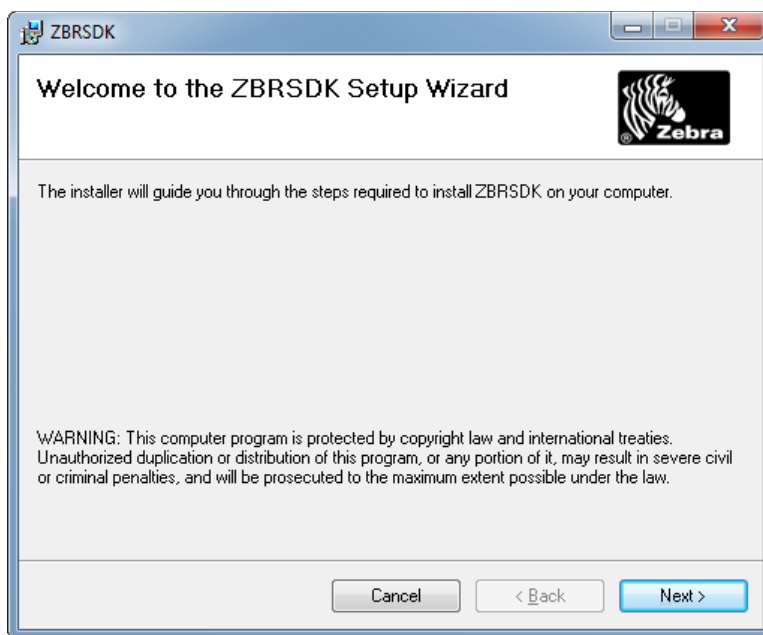
Install the ZXP Series 3 and Series 1 SDK

You must install the ZXP Series 3 and Series 1 SDK to your system before you can develop the sample application.

Follow these steps to install the ZXP Series 3 and Series 1 SDK:

1. Run the ZXP Series 3 and Series 1 SDK Installer.

The ZBRSDK Setup Wizard appears.

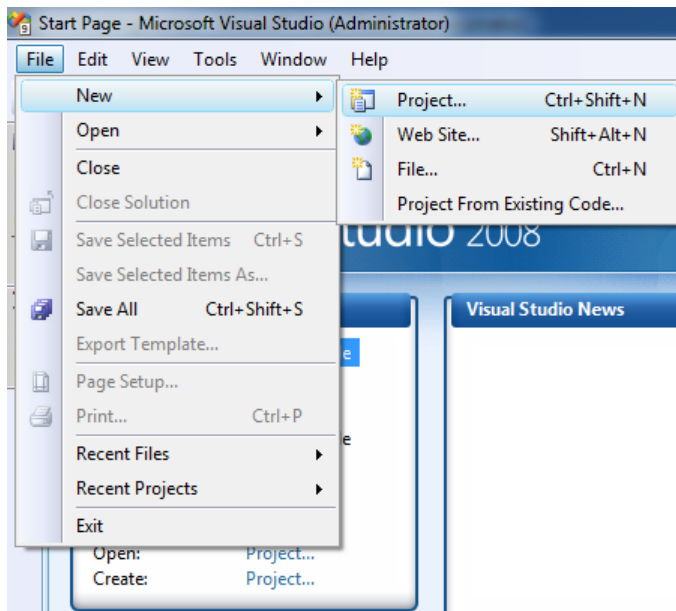


2. Click **Next**.
3. Use the installer's defaults to advance through the installation wizard.

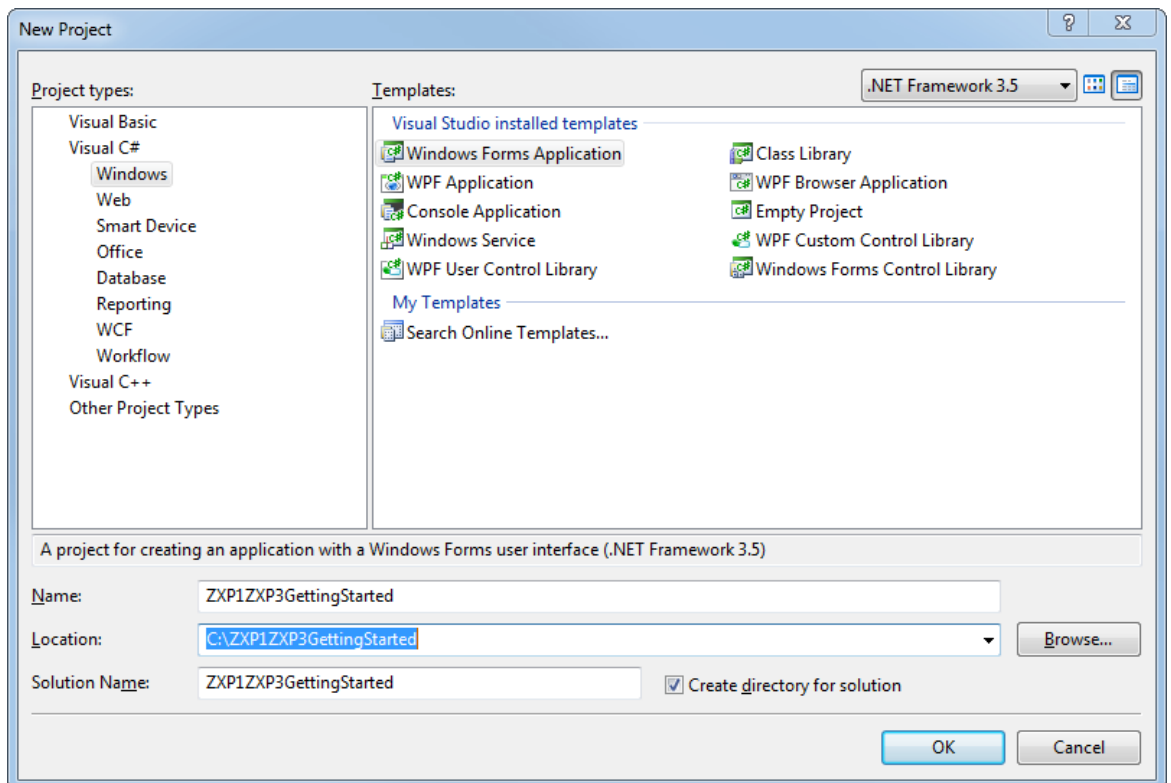
Create an Application Using the ZXP Series 3 and Series 1 SDK

The following steps guide you on how to create an application that uses the ZXP Series 3 and Series 1 SDK. The application feeds in a PVC card from the Input Hopper, prints text and graphics to the card, and then sends the card to the Output Hopper.

1. Launch Microsoft Visual Studio 2008.
2. To create a C# Windows Form project, click **File -> New -> Project**.



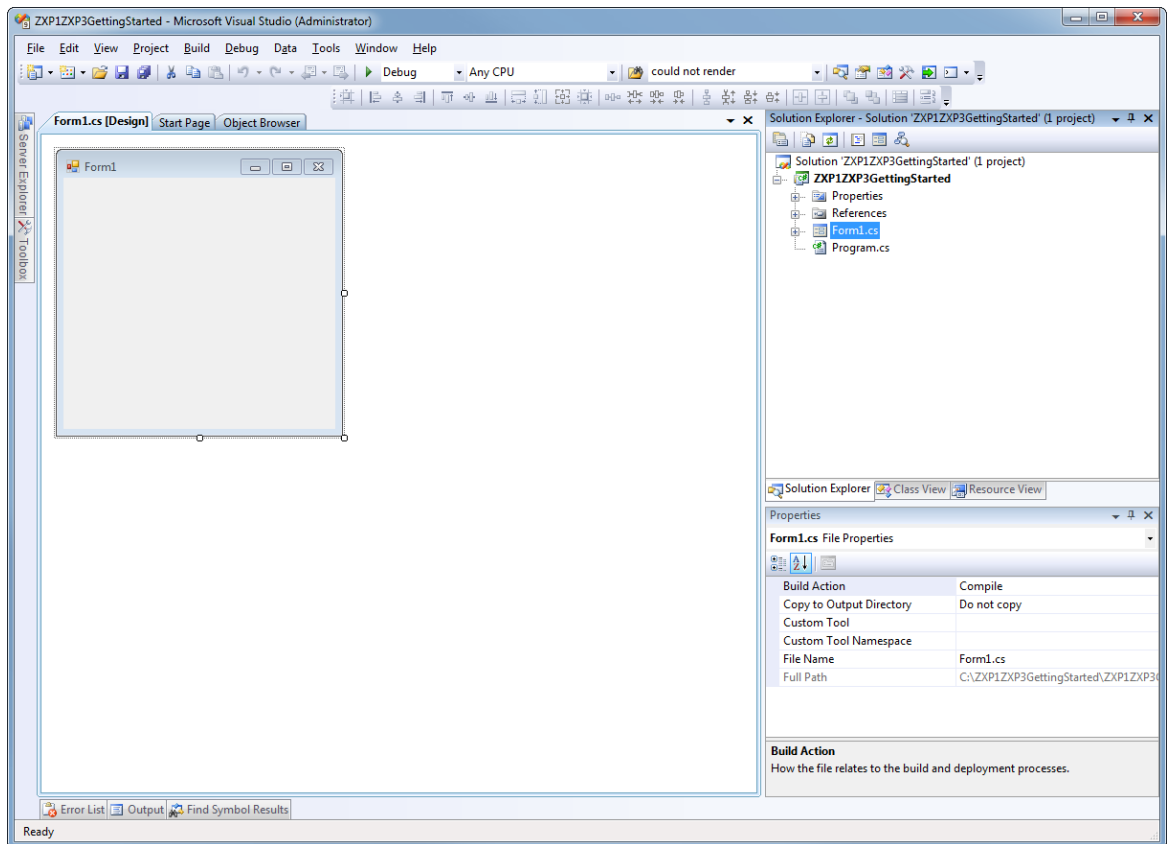
The New Project dialog appears. In the “Project types” pane, expand Visual C# and select **Windows Forms Application**.



3. Do the following:

- Type **ZXP1ZXP3GettingStarted** in the Name text field
- Select a location for your project
- Click **OK**

Your project automatically opens in the IDE. The Form Designer is opened by default.

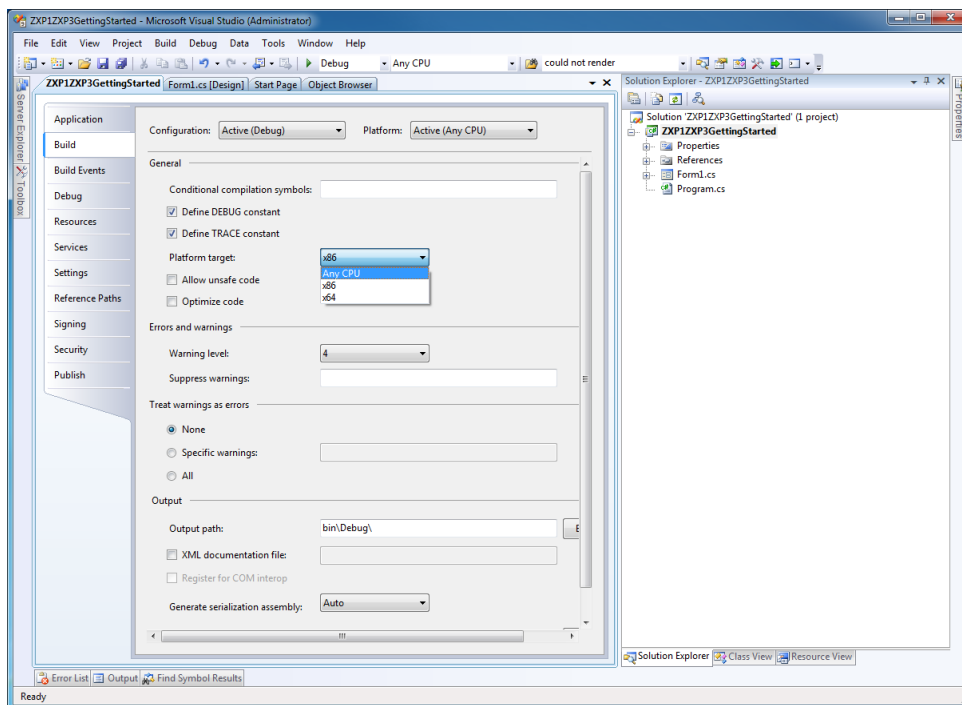


Note: The ZXP Series 3 and Series 1 SDK can work with either 32-bit or 64-bit machines.

4. Right-click the ZXP1ZXP3GettingStarted project in the Solution Explorer and select **Properties**.

The ZXP1ZXP3GettingStarted project's properties window appears.

5. Select **Build** on the left.



6. Set the Platform target to either x86 or x64, depending on which version of the SDK you are using and **Save**.
7. Close the Properties window to return to the Form Designer.

Design the Form Layout

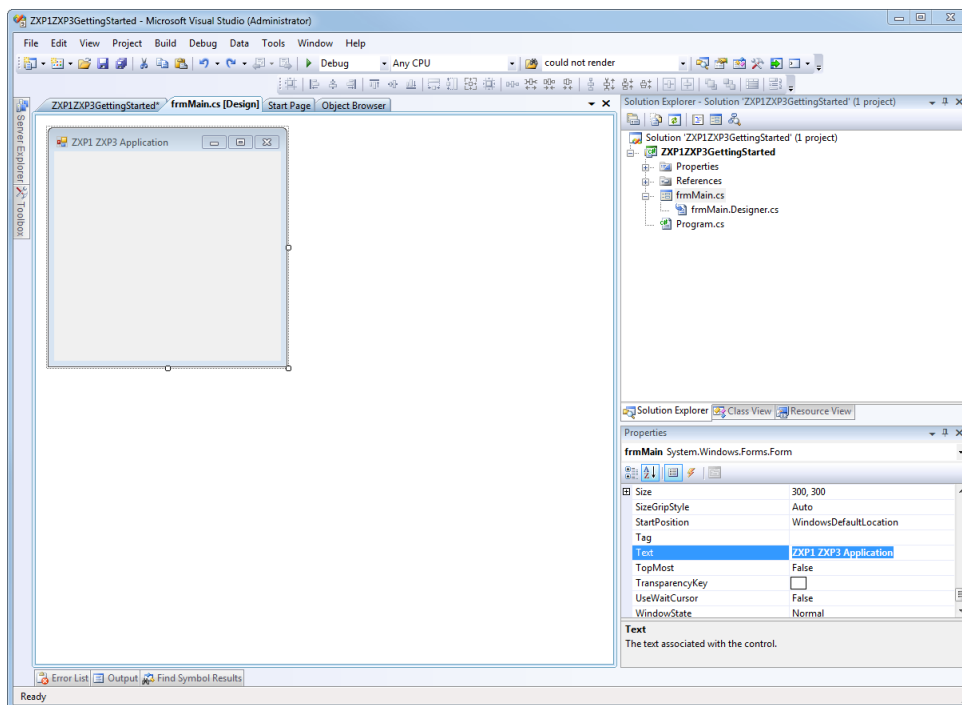
This section contains instructions for specifying the:

- Form and form properties
- Form Events (combo box, common controls, text box, labels for the objects, messaging, and interface buttons)

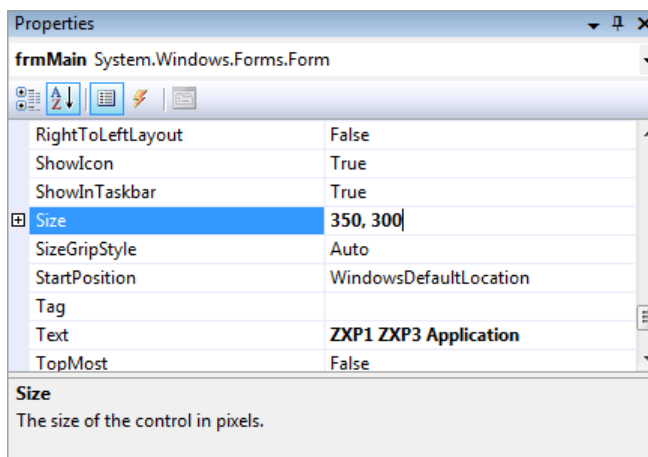
Defining the Form and Form Properties

1. To rename the form in the Solution Explorer, right-click Form1.cs and select **Rename**.
2. Type **frmMain.cs** and press **Enter**.
3. Click **Yes** when prompted to rename all references of "Form1".
4. Right-click anywhere on the form in the Form Designer and select **Properties**.

The Properties table appears in the bottom right panel.

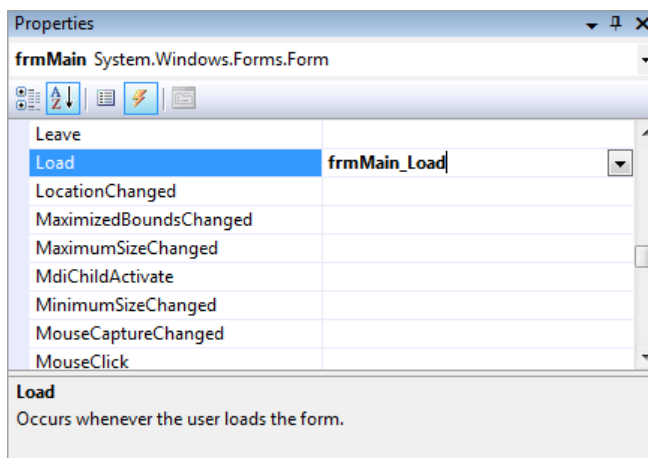


5. Replace "Form1" with **ZXP1 ZXP3 Application** for the value of the Text property.
This changes the text on the title bar of the form.
6. For the value of the Size property, replace "300, 300" with **350, 300**.



Defining the Form Events

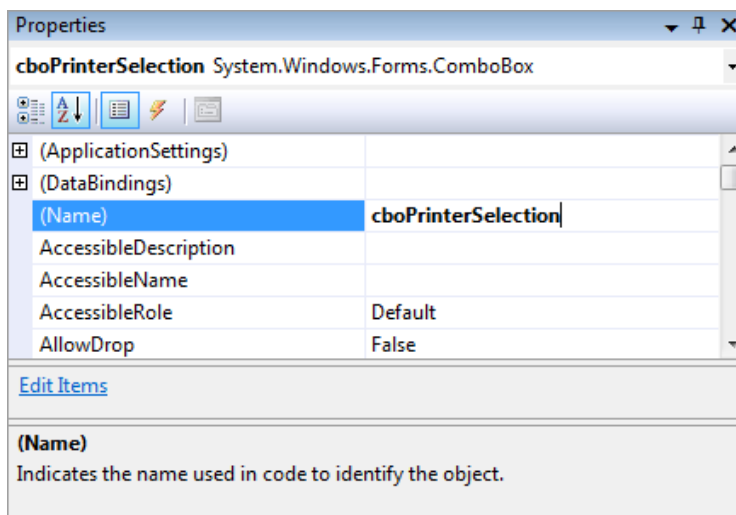
1. In the Properties window, use the lightning bolt icon to set the Load event to **frmMain_Load**.



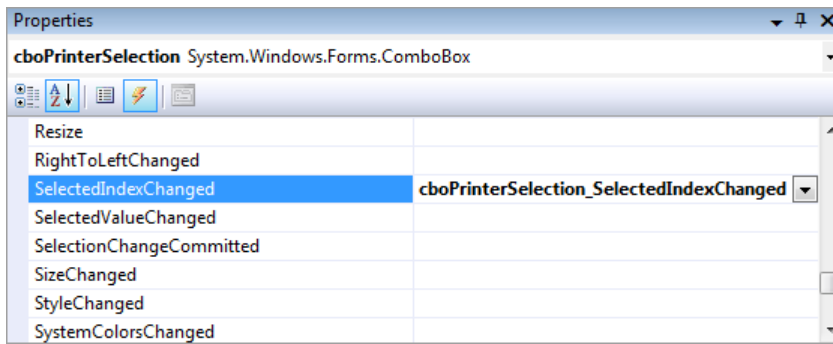
2. Now define the additional form objects and events.

Defining Additional Form Objects and Events

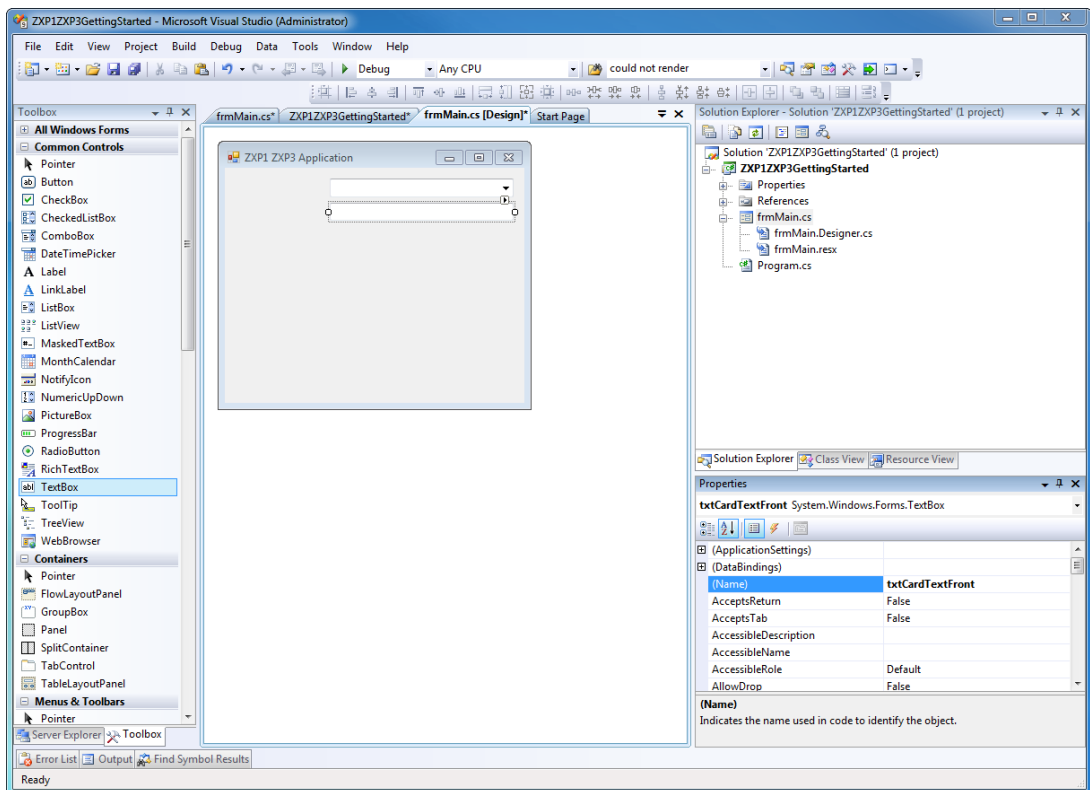
1. Do the following:
 - Expand the Toolbox on the left.
 - Expand Common Controls and drag a **ComboBox** into the top right portion of the form.
2. Right-click the combo box and select **Properties**.
3. Type the value of the “(Name)” property to **cboPrinterSelection**.



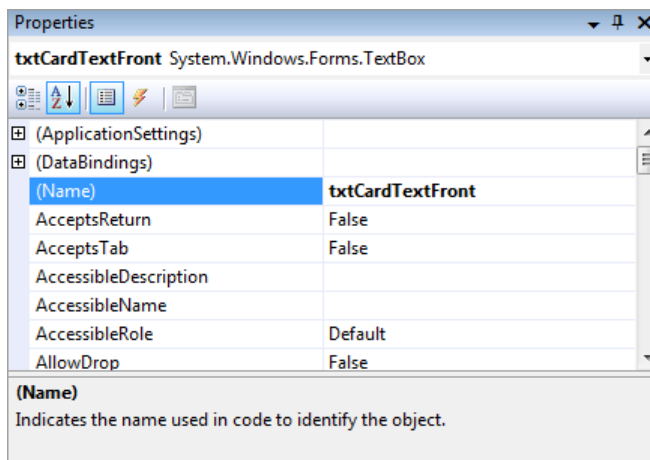
4. Use the lightning bolt icon to change the combo box's SelectedIndexChanged event to **cboPrinterSelection_SelectedIndexChanged**.



- Use a text box to enter text that you want to appear on the card, by dragging a TextBox from the Toolbox and place it directly under the combo box on the form.

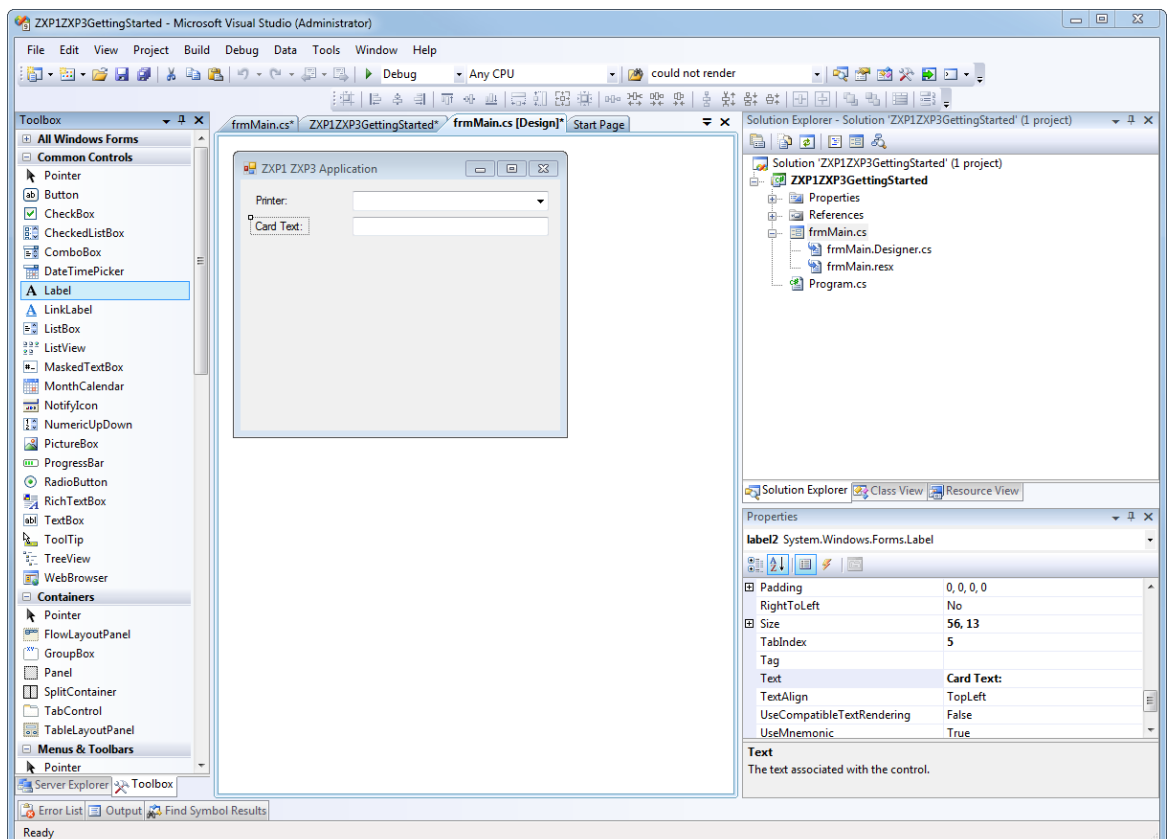


- Right-click the TextBox and select **Properties**.
- Set the value of its "(Name)" property to **txtCardTextFront**.



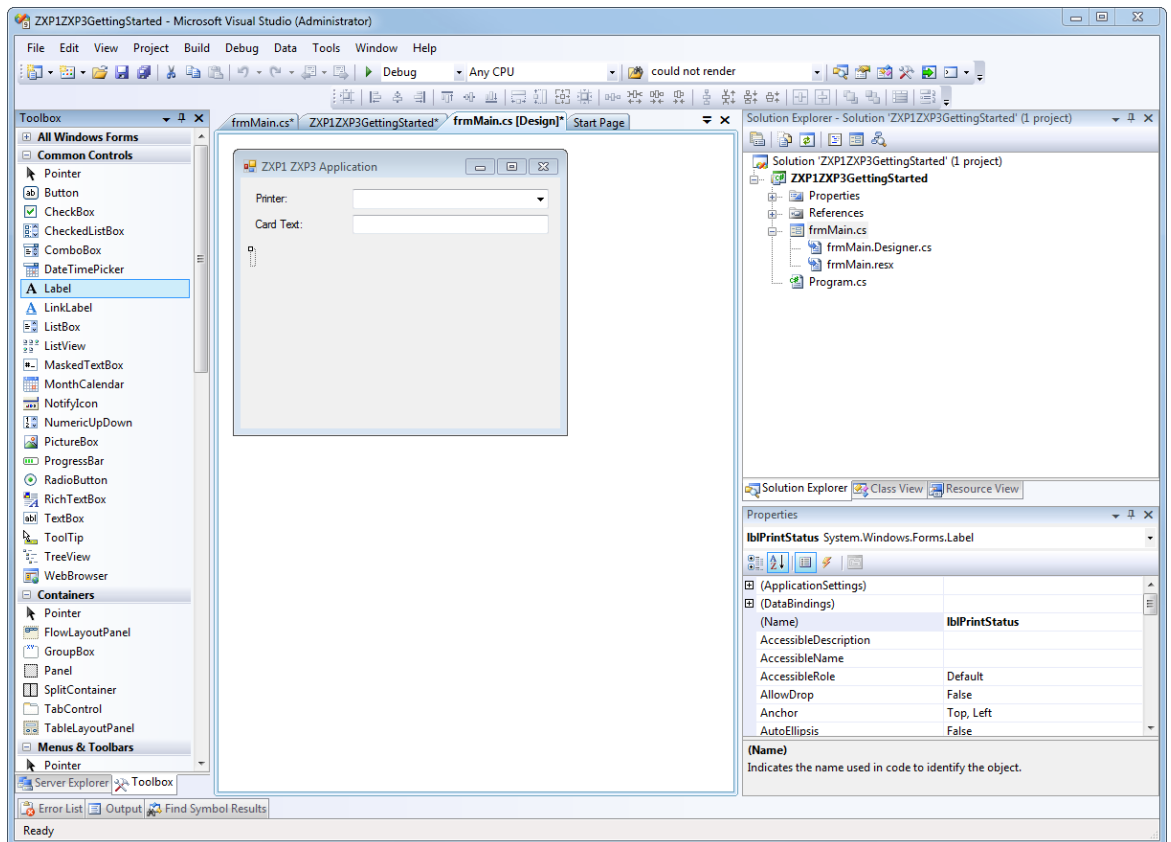
8. Now, add Labels to the combo box and text box.

- Drag a Label from the Toolbox and place it to the left of the combo box.
- Right-click the label and select **Properties**. Change the value of the Text property to **Printer**.
- Drag another Label from the Toolbox and place it to the left of the text box.
- Right-click the label and select **Properties**. Change the value of the Text property to **Card Text**.

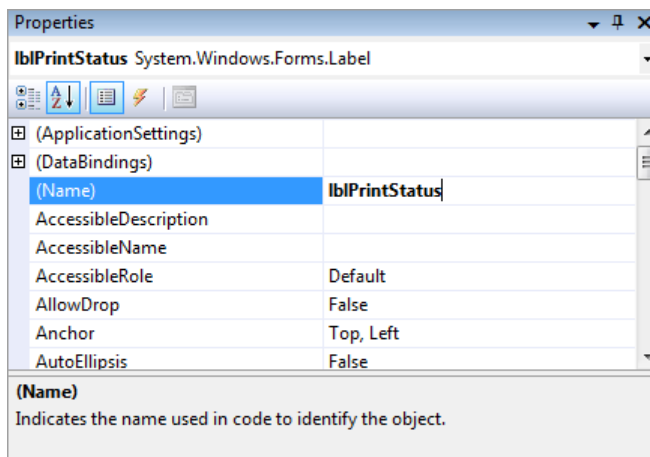


9. Add another label to output the status messages.

- Drag another Label from the Toolbox and place it directly under the Card Text Label.

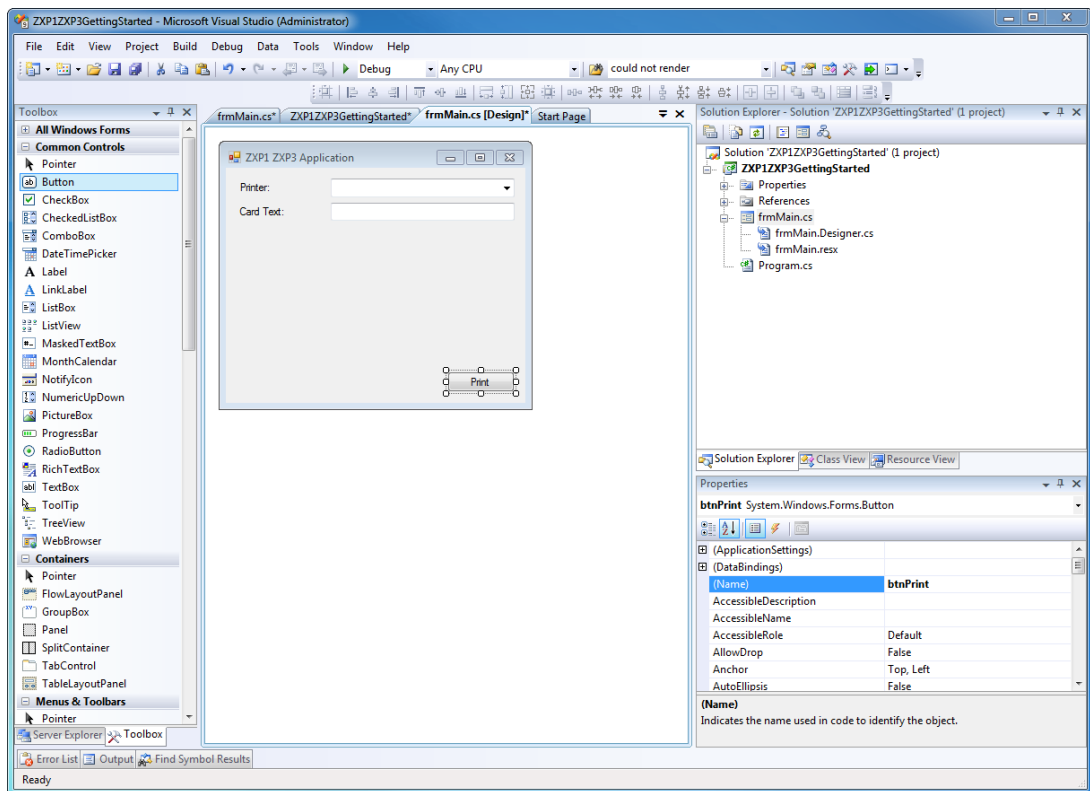


- Right-click the label and select **Properties**. Clear the value of the Text property so that is blank and set the value of the “(Name)” property to **lblPrintStatus**.

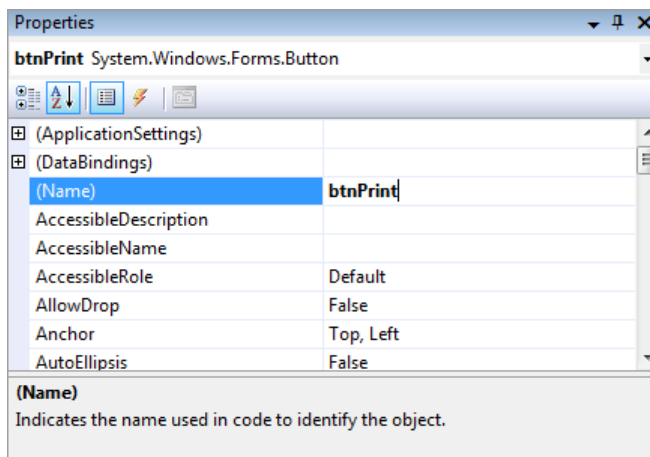


10. Add a Button to print the card.

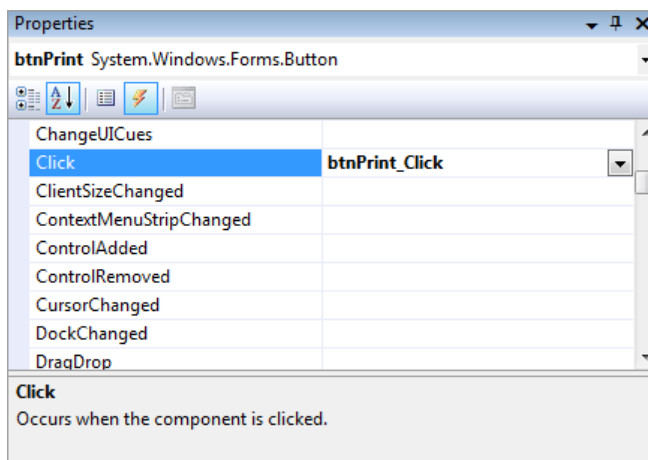
- Drag a Button from the Toolbox and place it in the bottom right portion of the form.



- Right-click the Button and select **Properties**.
- Change the value of the Text property to **Print**.
- Change the value of the “(Name)” property to **btnPrint**.



- Use the lightning bolt icon to set the Button’s click event to **btnPrint_Click**.



Add the Code

Now, you need to add the code.

1. Right-click anywhere in the Form Designer and select View Code.

The frmMain.cs opens.

2. Create the files **ZBRGraphics.cs** and **ZBRPrinter.cs**.
3. Replace the existing code in frmMain.cs, ZBRGraphics.cs and ZBRPrinter.cs with source code from [Connect and Print – Zebra Card SDK for ZXP Series 1 and Series 3 Printers – C#](#).
4. Copy the ZBRGraphics.dll and ZBRPrinter.dll SDK files to the folder where the application's .exe is located.

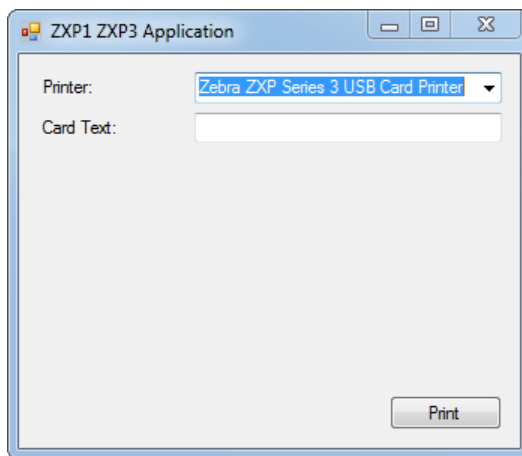
This code has a few main functions:

- Populates the printer selection combo box with available printers.
- Connects to the printer before printing and disconnects from the printer after printing.
- Draws shapes and text to the graphics buffer and begins printing when the Print button is clicked.

Note: The source code in this Application Note is extracted from [Connect and Print – Zebra Card SDK for ZXP Series 1 and Series 3 Printers – C#](#).

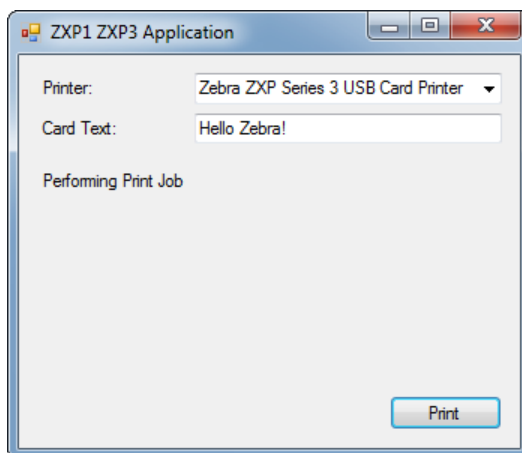
Run the Application

1. Press **F5** to start the application.
2. Select your ZXP Series 1 or Series 3 device from the printer selection combo box.

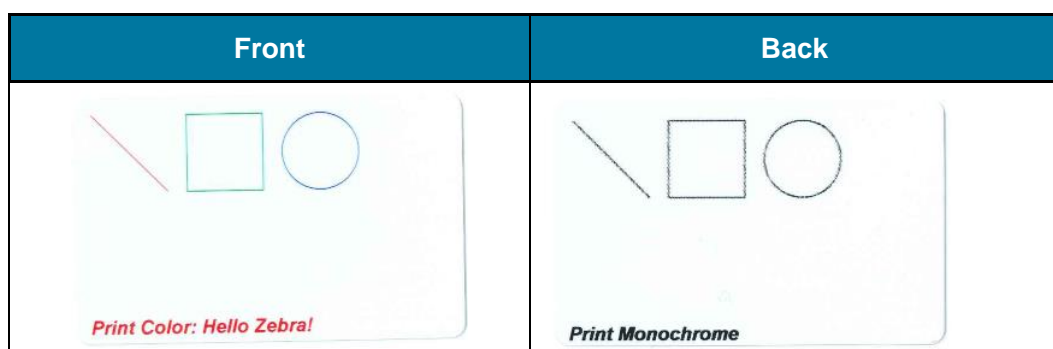


3. Type "Hello Zebra!" into the Card Text field.
4. Click **Print**.

When printing begins, a message "Performing Print Job" appears.



5. After printing is complete, a "Print Job: Success" message appears.
 - If you have a dual-sided printer, the resulting shapes appear with the text printed on the front and back of your card.
 - If you have a single-sided printer, only the shapes and text appear on the front of your card.



Document Control

Version	Date	Description
1	April, 2011	Initial release
2	November, 2015	Added support for the ZXP Series 1 and Series 3 Printers for the updated SDK

Disclaimer

All links and information provided within this document are correct at time of writing.

Created for Zebra Global ISV Program by Zebra Development Services.