

SWARM: Secure Wireless Ad hoc Robots on Mission

CSU647 & CSG258 Spring 2009

School of Computer and Information Science, Northeastern University

Get Started in Developing Windows Mobile 6 Application

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1. Setup Windows Mobile 6 Development Environment

List of tools required for windows mobile app development

▪ Windows XP

- * Microsoft Visual Studio 2005 standard edition or above. Express edition is NOT supported.
- * If you installed Visual studio 2005, you also need to install Microsoft .NET Compact Framework v2 SP1.
- * ActiveSync 4.5
- * Windows Mobile 6 Standard SDK

▪ Windows Vista

- * Microsoft Visual Studio 2005 standard edition or above. Express edition is NOT supported.
- * If you installed Visual studio 2005, you also need to install Microsoft .NET Compact Framework v2 SP1.
- * Windows Mobile Device Center
- * Windows Mobile 6 Standard SDK

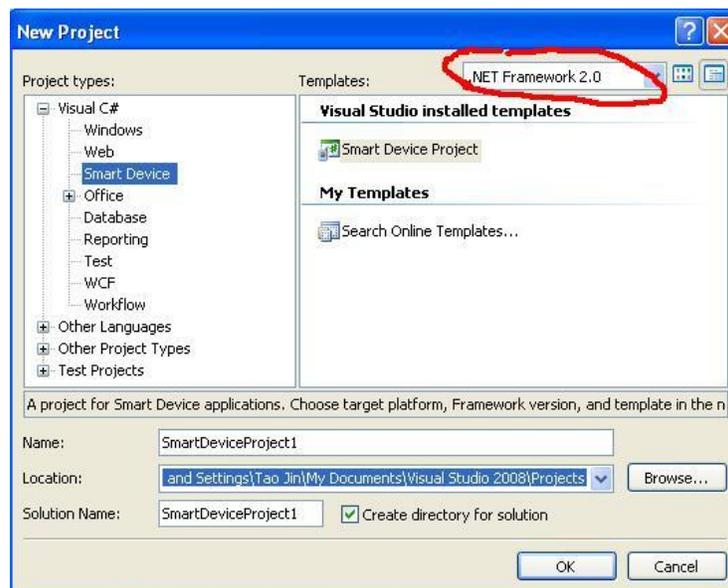
Install the required tools. You could find the download locations from

<http://msdn.microsoft.com/en-us/library/bb158496.aspx>

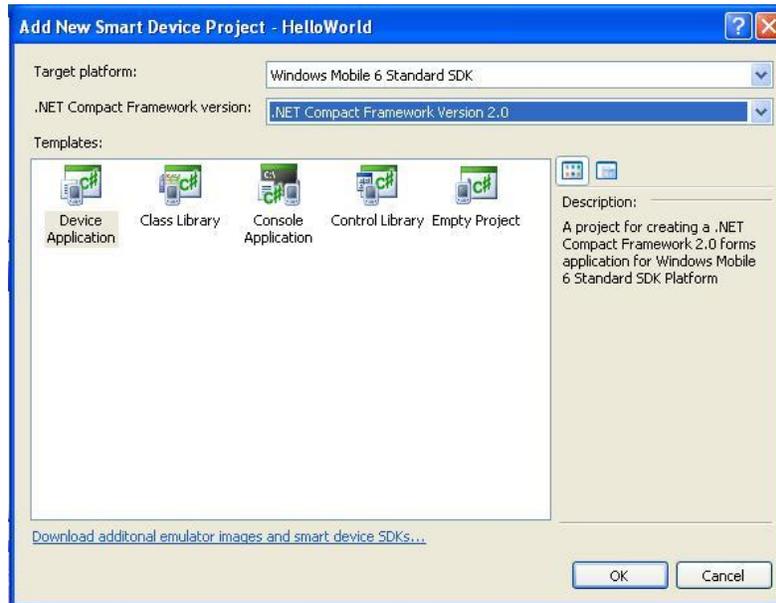
2. Hello World application in C#

Create and Run Hello World application in managed code (C#) with Visual Studio and Windows Mobile 6 Emulator. In our example, we use visual studio 2008.

Step1. Create a new Smart Device project. Be sure to choose .NET Framework 2.0, which is compatible with our testing smart phones. Name this project “Hello World”



Step 2. Click Next, and choose Target Platform “Windows Mobile 6 Standard SDK”, and .NET Compact Framework version 2.0



Step 3. In the Form Design window, click “mainMenu1”, and edit the highlighted menu field on screen as “Quit”



Step 4. Double click the Quit button, you will be redirected to the function body of “menuItem1_Click”. Fill the function body with the following code, which defines the behavior of Quit button.

```
Application.Exit();
```

Step 5. Add the following code to class Form1

```
protected override void OnPaint(PaintEventArgs e)
{
    // Create string to draw.
    string drawString = "Hello World";

    // Create font and brush.
    Font drawFont = new Font("Arial", 10, FontStyle.Regular);
    SolidBrush drawBrush = new SolidBrush(Color.Black);

    // Create point for upper-left corner of drawing.
    float x = 10.0F;
    float y = 10.0F;

    // Draw string to screen.
    e.Graphics.DrawString(drawString, drawFont, drawBrush, x, y);
}
```

Step 6. Open “Tools” tab, and choose “connect to device”. This will start the windows mobile 6 standard emulator.

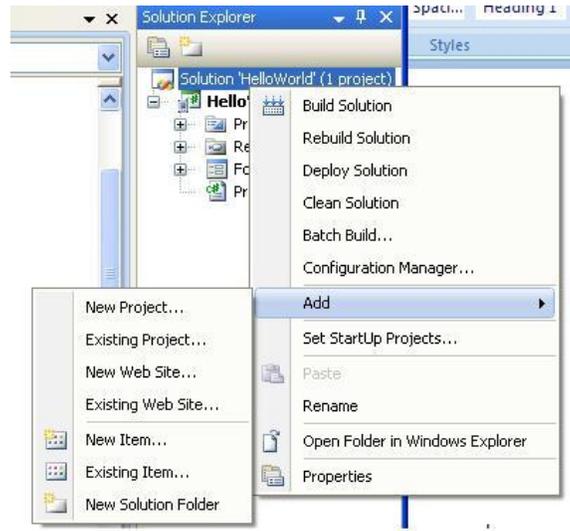
Step 7. After emulator is up and ready, open “Debug” tab, and choose “start debugging”. This will load the application to emulator.



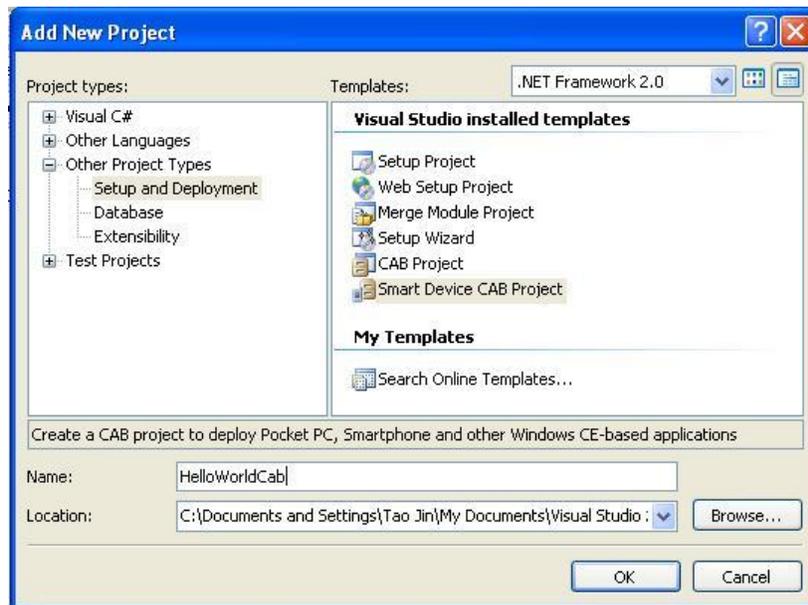
3. Deploy application to real smart phones

Step 1. Package application into cab file, which will be copied to phone memory and used as installation file.

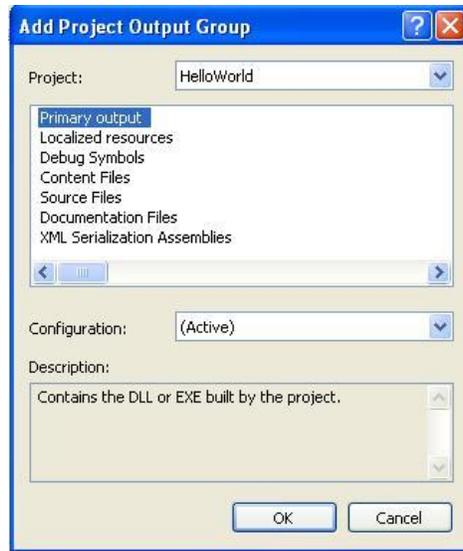
In the Solution Explorer, right click the solution name and choose Add->New Project



Step 2. In the Add New Project window, choose Other Project Types-> Smart Device CAB Project.



Step 3. Right Click the CAB project name, choose "Add->Project Output...". In the pop-up window, choose primary output.



Step 4. Open “Build” tab, and build and CAB project you created. Now in your \$CAB project folder\$/DEBUG/, there is a .CAB file created.

Step 5. Connect your phone to your PC. Open ActiveSync. Choose Explorer. Copy the .CAB file created in step 4 to Explorer.

Step 6. Locate the file on your phone. Typically, it should be in “My Documents” folder in the phone OS.

Step 7. Double click the file, and the application will be installed to your smart phone.

Step 8. Go to “Program Files” folder on your phone OS, and find the folder for your application. Start the application and test run it on your phone.

Reference

- MSDN document on Windows Mobile 6
<http://msdn.microsoft.com/en-us/library/bb158486.aspx>
- Getting started in Developing Applications for Windows Mobile 6
<http://msdn.microsoft.com/en-us/library/bb158522.aspx>
- Tutorial on how to package smart device solution for deployment
<http://msdn.microsoft.com/en-us/library/zcebx8f8.aspx>