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OpenGL|ES Tutorials (1): Setting Everything Up

Before you dive into your apps, you will need to set up your coding environment. You will need to download the following:

- (Download) Embedded Visual C++ 4.0
    - This is the IDE in which you will spend your time coding in
- (Download) Embedded Visual C++ 4.0 SP4
    - Service Pack 4 for EVC++ 4.0
- (Download) An SDK (compatible with the Gizmondo)
    - Required so that you compile your applications/games to the right processor. The Gizmondo runs on the ARMV4I processor, whereas most SDK's include only the ARMV4, and which the majority of PPC apps/games and compiled too.
- (Download) An OpenGL|ES Implementation (compatible with the Gizmondo)
    - This required to draw stuff! There are several currently on the net: Vincent Mobile 3D Rendering Library, Hybrid's "Rasteroid" Implementation, and GLUT|ES. To make things simple, I've compiled a gizmondo-specific implementation, - that has been tested and works with the Gizmondo.

Once you've downloaded all of the above, install them (in the following order): EVC++ 4.0, EVC++ 4.0 SP4, SDK and the OpenGL|ES Implementation. The first three are self explanatory, the implementation is discussed below.

Once you download the Implementation (linked above) you must do the following:

- Copy the files from the inc (Include) folder, to C:\Program Files\Windows CE Tools\wce420\GizmondoSDK\Include\ARMV4I directory where C:\Program Files\Windows CE Tools\ is your SDKs' install directory.
- Copy the files from the lib (Libraries) folder, to C:\Program Files\Windows CE Tools\wce420\GizmondoSDK\Lib\ARMV4I directory where C:\Program Files\Windows CE Tools\ is your SDKs' install directory.

Note: You do not need to do install the Open GL|ES Implementation if you install the KGSDK on top of EVC++. It already contains the OpenGL|ES Implementation, self-installed.

You're now ready to start coding. Open up EVC++. Go to File > New > Projects and select WCE Application. Enter a name and location, and make sure the ARMV4I CPU is ticked from the list of CPU's. As shown in Figure 1.1.

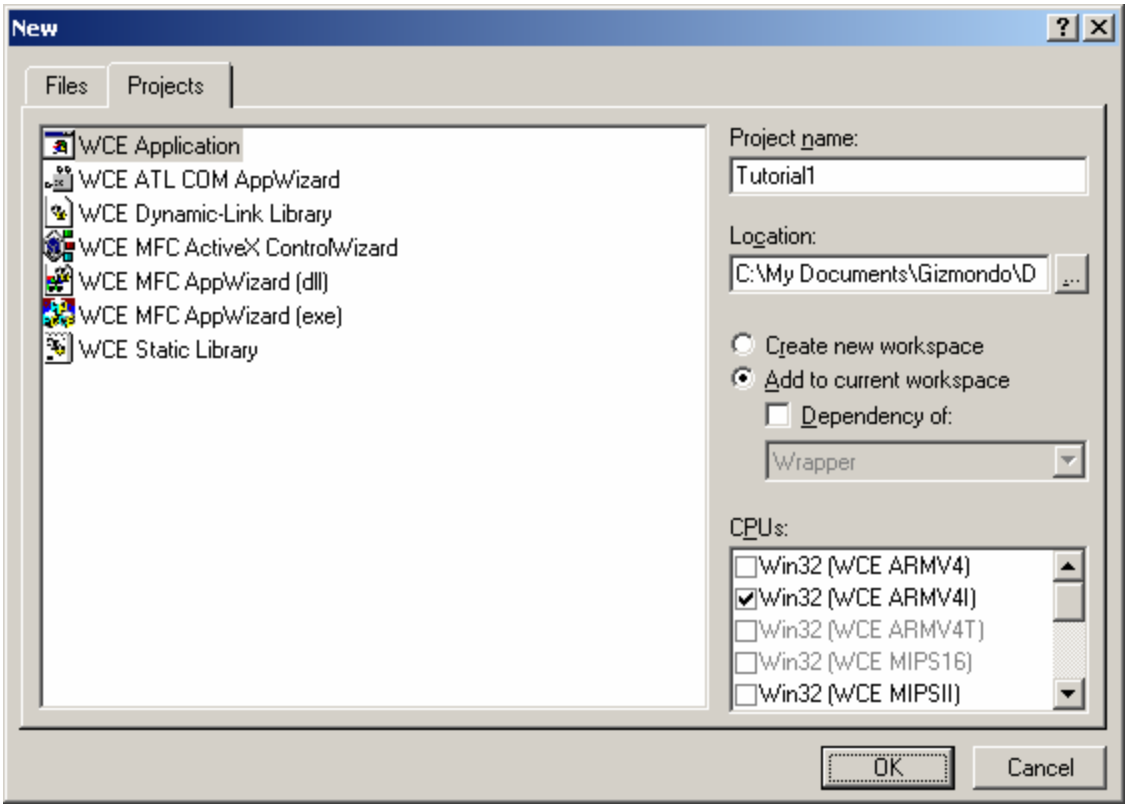

Figure 1.1 New Project, Step 1

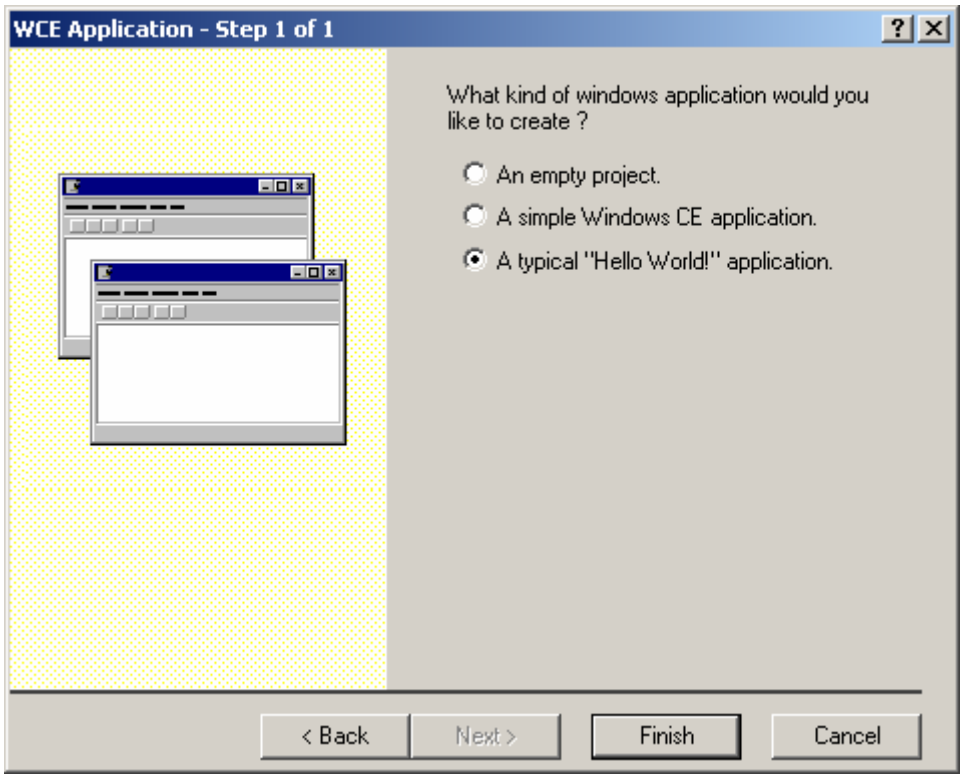

Figure 1.2
New Project, Step 2

In the next stage, Make sure “A typical ‘Hello World!’ application” is selected then click Finish.

Your configuration should be similar to that in the picture below:

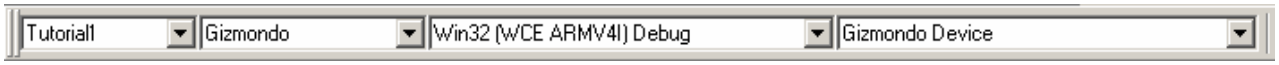

Figure 1.3 New Project Configuration

Connect your Gizmondo to your PC, switch it on, then Build and Execute your Hello World Application by pressing the Build button, then the Execute button.


Build Project


Execute Project on Remote Device

Figure 1.4 Build and Execute Buttons

Remember that in future tutorials, or when using OpenGL|ES in general, you will need to copy over the libGLES_CM**.dll** to the Device. (Can be the \Windows Directory, or the same directory as where your application is executed.)

Note that these tutorials only create and tests apps/games directly on the Gizmondo, instead of using an emulator.

- End of OpenGL|ES Tutorials: Setting Everything Up -