

## What Are The ShieldBuddy TC275 Tools?

The main ShieldBuddy toolchain is the Eclipse-based “FreeEntryToolchain” from Hightec/PLS/ Infineon. This is a full C/C++ development environment with source-level debugger. The familiar Arduino IDE is also available for the ShieldBuddy. Both IDEs are based on the Infineon iLLD libraries and allow the usual Arduino C++- like Processing language to be used with the familiar Arduino IO functions e.g. digitalWrite(), analogRead(), Serial.print() etc.. These functions are implemented for all three TC275 cores and can be used without restriction.

Given the awesome power of the TC275 we expect most users to program it in C in Eclipse, using the iLLD API directly or working with the underlying SFRs. The neat thing about the ShieldBuddy is that it lets you access the massive power of the TC275 without knowing anything about the bits and bytes of the peripherals!

## Getting Started With The TC275 Toolchain

If you have never used an Arduino-style board before then is a good idea to have a look at [www.arduino.cc](http://www.arduino.cc) to find out what it is all about! Although the ShieldBuddy contains three powerful 32-bit, 200MHz processors, it can be used in exactly the same way as an ordinary Arduino Uno. The same Arduino IDE can be used but with an add-on to allow triple core operation. To use the ShieldBuddy you will need:

- (i) a PC with Windows 7 or later
- (ii) The Aurix free toolchain with Eclipse, C/C++ compiler and UDE debugger from PLS:  
<http://free-entry-toolchain.hightec-rt.com/>

Follow the instructions given as you will need a free licence file which will be automatically emailed to you. You will need to copy it to :  
C:\HIGHTEC\licenses.

- (iii) The standard Arduino IDE installed from:  
<https://www.arduino.cc/en/Main/Software>

You may already have this but make sure it is installed in the default directory!

- (iv) The Arduino development environment add-in for Eclipse and the standard Arduino IDE:

<http://www.hitex.co.uk/fileadmin/uk-files/downloads/ShieldBuddy/ShieldBuddyMulticoreIDE.zip>

Unzip this to a temporary directory using the zip password “ShieldBuddy”. You can also download the installer directly from:

<http://www.hitex.co.uk/fileadmin/uk-files/downloads/ShieldBuddy/ShieldBuddyMulticoreIDE.exe>

Run the installer and use the password “ShieldBuddy” to copy the IDE onto your PC. Install these in the order Arduino IDE (you may already have this), Aurix freetoolchain, ShieldBuddy IDE. **ShieldBuddy COMports:** You may find that the Arduino IDE thinks that the ShieldBuddy has two comports. If this happens, please choose the one with the higher number!



