

## **AXE027 Advanced Configuration Settings**

### **A) Changing the AXE027 PICAXE USB Cable Default COM Port**

When the AXE027 cable is used for the very first time Windows' 'New Hardware Wizard' will allocate the cable the next available virtual COM port number (e.g. COM5). This COM port number is then permanently reserved for this cable (as long as it is always used in the same USB socket on the computer).

If desired it is possible to change this default value to a different COM port number. This may be of benefit in a school IT suite with multiple computers, so for instance each computer can be set to use exactly the same COM port number.

### **B) Improving the AXE027 PICAXE USB Cable download speed**

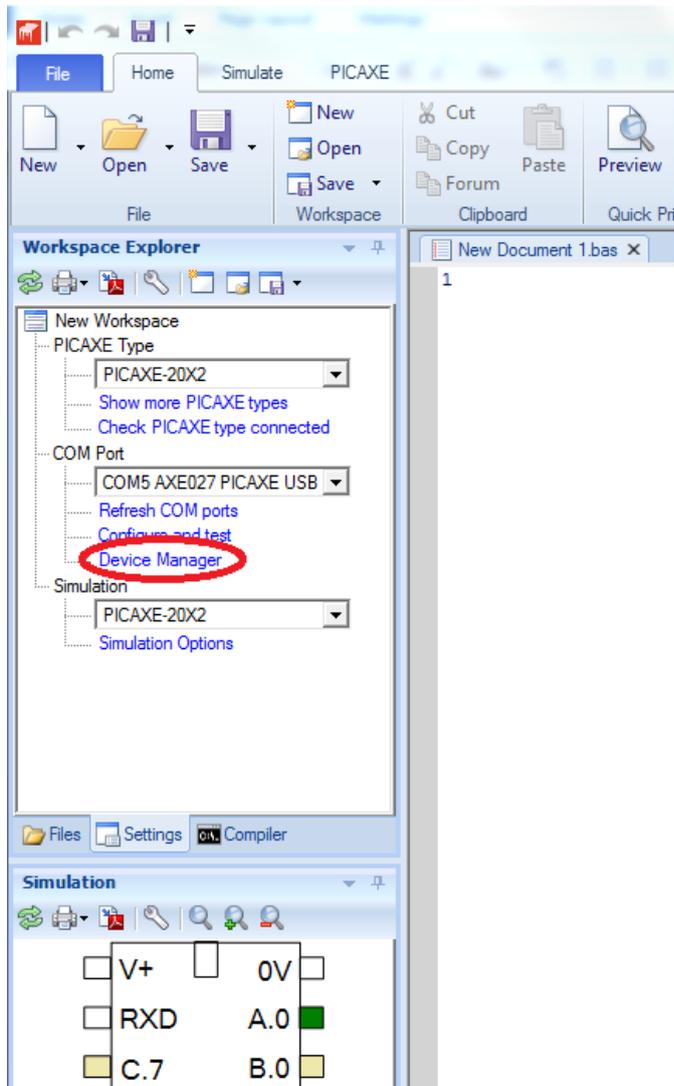
The AXE027 PICAXE USB cable uses the FTDI USB<>serial chipset, which is generally considered to be one of the best quality and most reliable USB chip/driver combinations available. Revolution Education work closely with FTDI to ensure the Windows drivers are the best possible.

The default FTDI driver setting includes a 16ms 'latency timer' delay on data transfer. The technical reasons behind latency are quite complicated, but latency is basically added to increase reliability of the USB<>serial conversion system, which obviously works, as the AXE027 is extremely reliable!

Latency does however slow down data transfer, making a PICAXE download slightly slower. But the good news is that, if you want to, you can change the FTDI latency to anything between 2 and 16 ms (16 is the default, and FTDI state you should not use a value of 1) via the COM port driver settings. By changing from 16 to 3 ms you can approximately halve your overall download time.

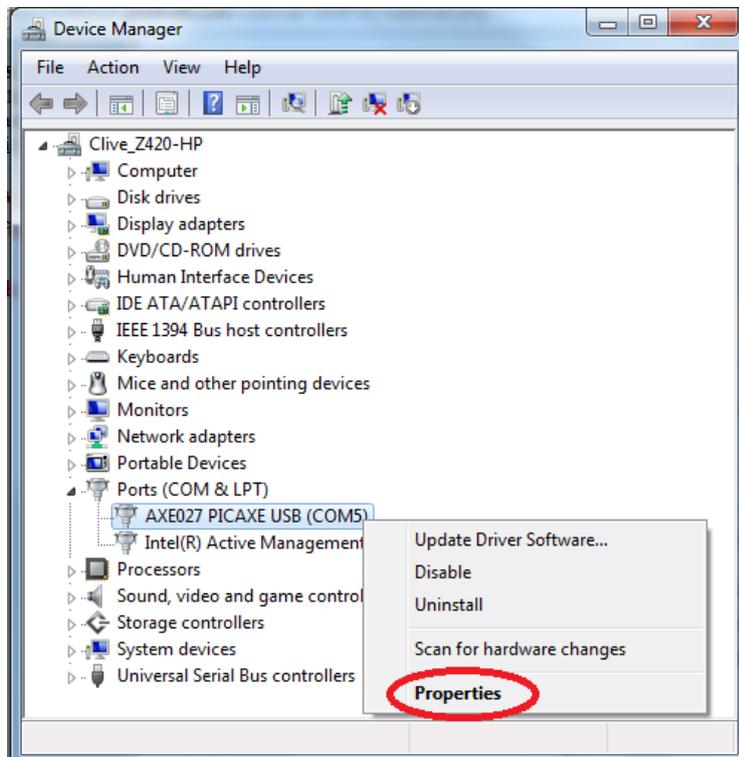
### Step 1:

Within the PICAXE Editor 6 click the 'Device Manager' link within the Workspace Explorer (or alternately start Device Manager from within Windows Control Panel).



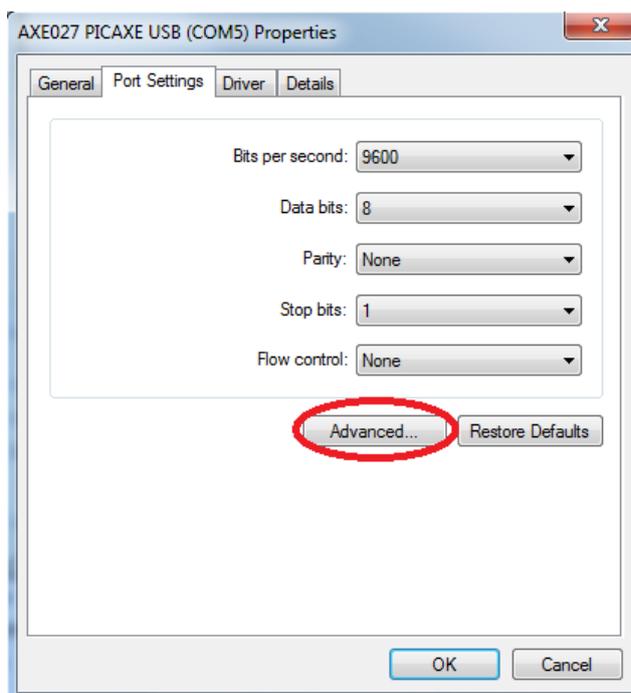
## Step 2:

Find the AXE027 in 'Ports (COM & LPT)' section, right click over it and select 'Properties'.



## Step 3:

Select the 'Port Settings' tab and click the 'Advanced' button

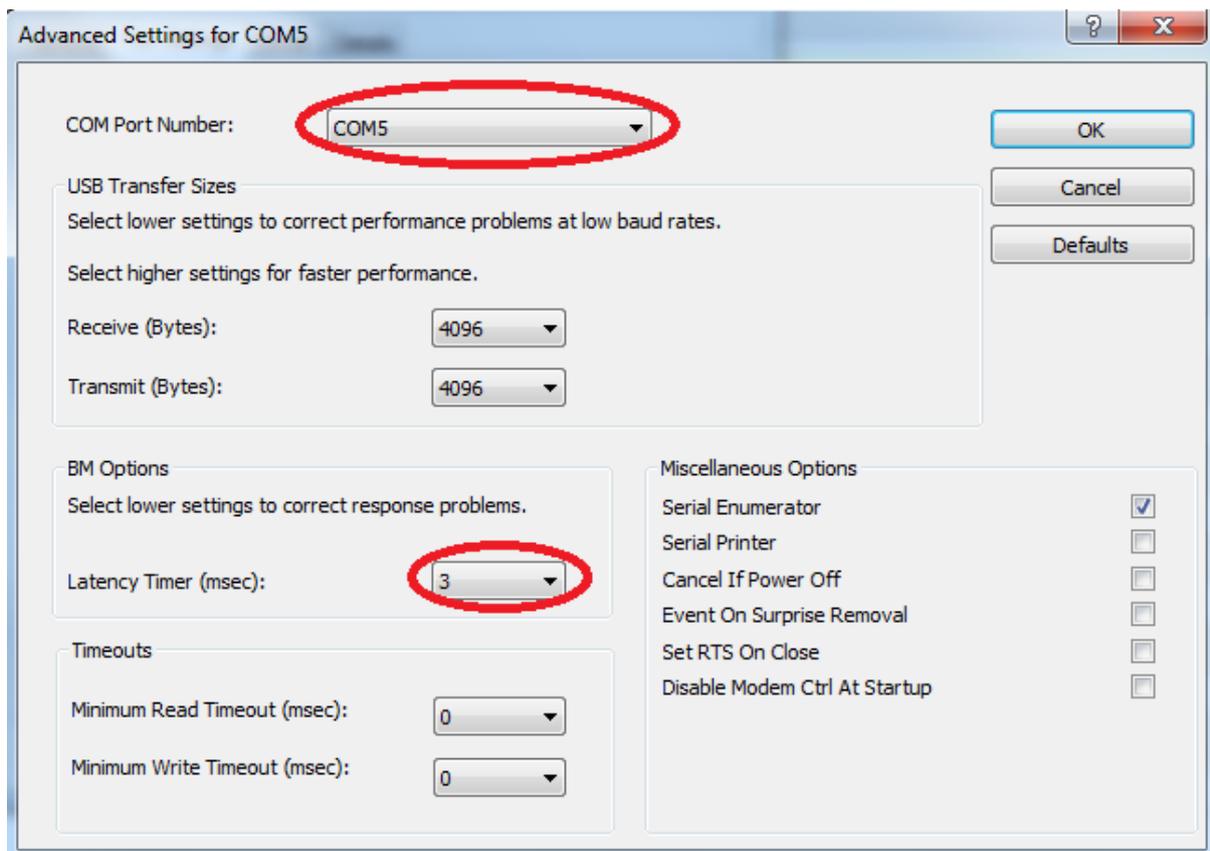


**Step 4:**

To change the allocated COM port number simply use the drop down list (select COM1 to COM255 as required \* ).

To change the 'Latency Timer' value use the drop down list (e.g. to change from the default 16 to a lower value such as 3).

Click OK twice to save the new values and then exit Device Manager.



*\* Note as the Windows system 'reserves' COM port numbers you may see that a COM port is marked as 'in use' even if you know that it is not (e.g. if it was reserved for a different physical USB socket or for a piece of old equipment that you no longer use). In the situation it is safe to reselect this COM port number anyway and ignore the warning message.*