

DigiLite Serialiser - FT2232H USB Module Installation v9

The FT2232H USB module has two input/output ports, either of which can be configured to be one of several device types.

The factory configuration is two uarts (serial ports). For DigiLite, the first port needs to be configured as a FIFO (first in first out byte memory). Some other default settings must also be changed.

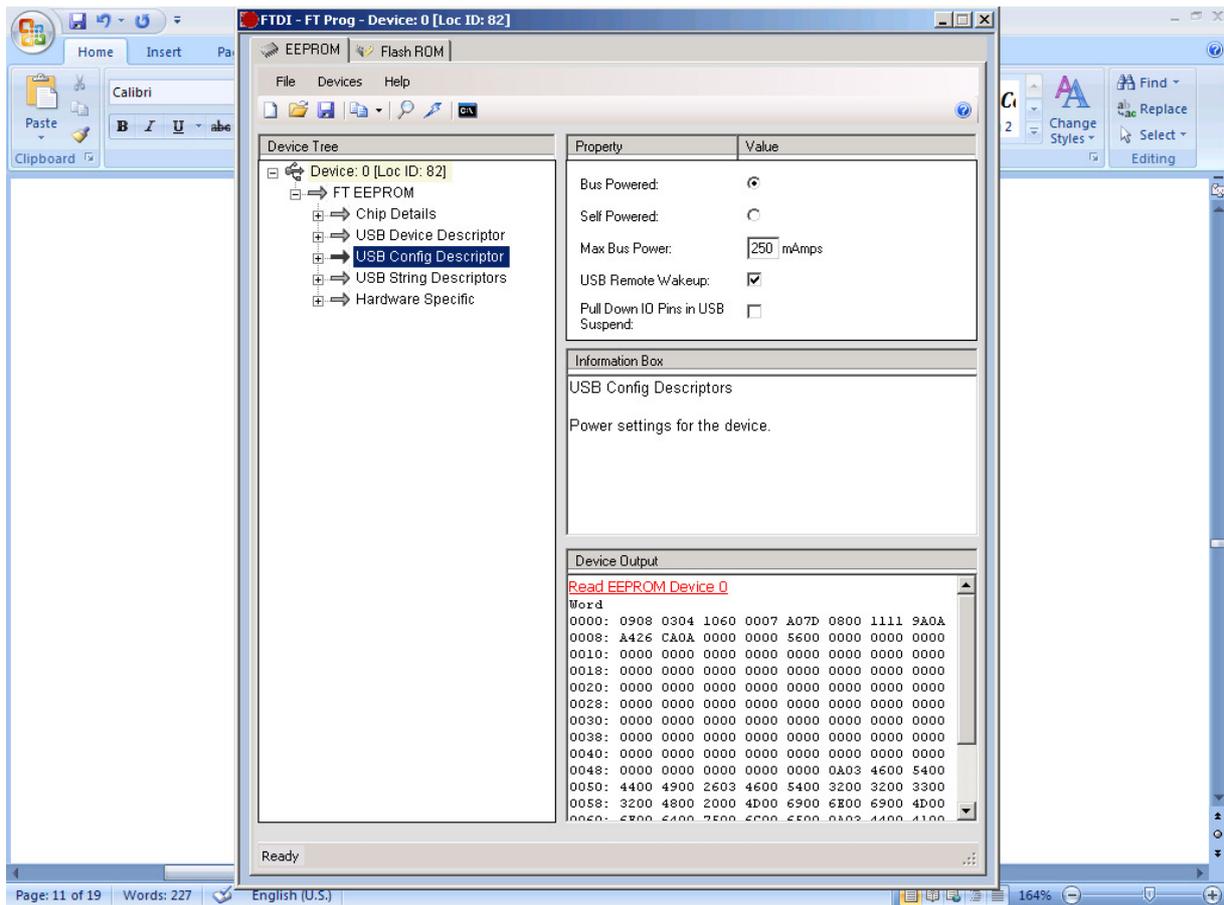
Preparation

- Do not insert the dsPIC chip until the FT2232H module has been configured.
- Download and unzip the FT2232H VCP (not D2XX) drivers from here:
<http://www.ftdichip.com/Drivers/VCP.htm>
- Download and unzip the FT2232H Configuration program (FT_PROG) from here:
http://www.ftdichip.com/Support/Utilities/FT_Prog_v2.4.zip
- With the FT2232H installed in a serialiser, connect it to a USB port on the PC.
- Give the location of the drivers if asked. You may need to do this several times until all the components of the FT2232H drivers have been installed.

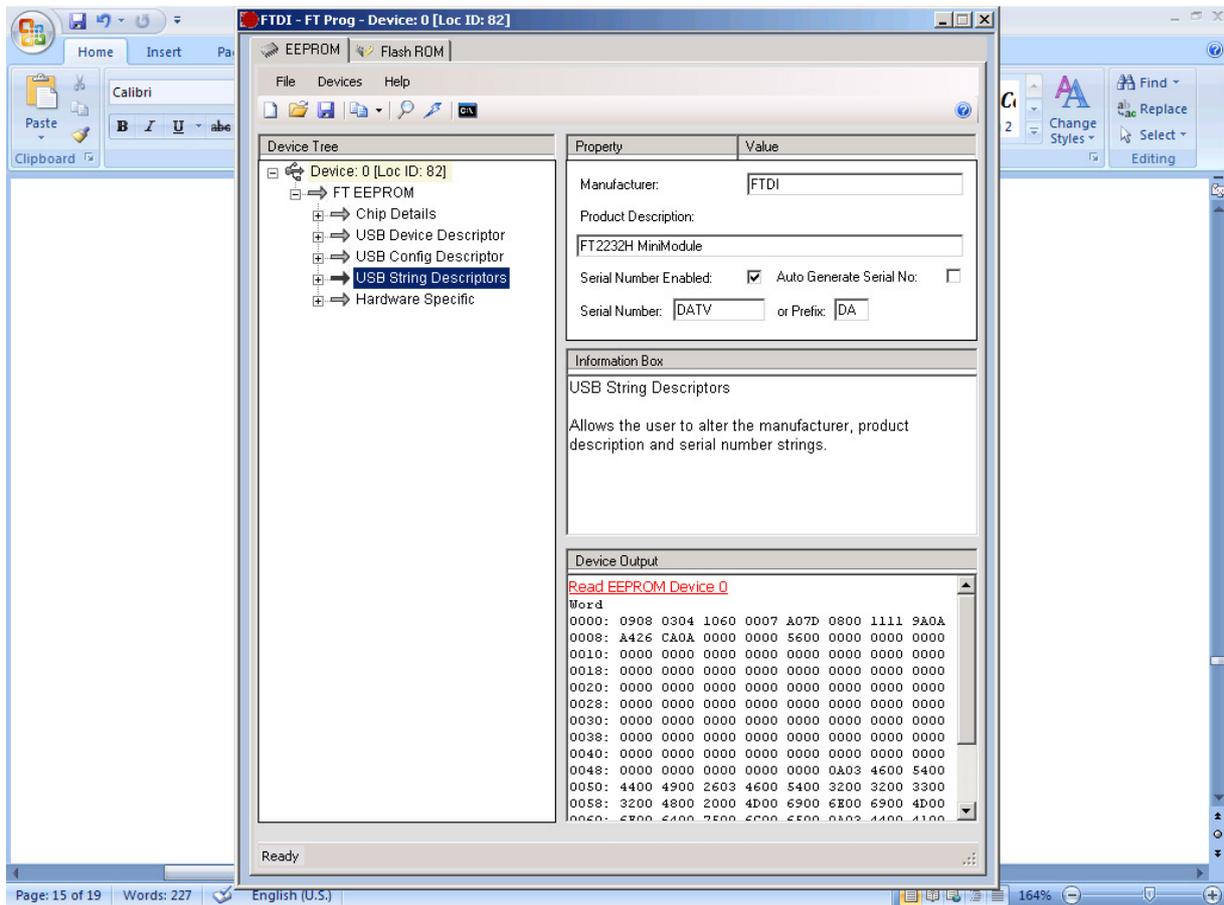
Editing the Configuration

- With the FT2232H connected to a USB port, run FT_PROG.
- FT_PROG needs Microsoft .Net Framework 3.5. This may already be on your PC. If not, you will be prompted to allow this to be installed. It may be several 10s of MB.
- Make sure that the **EEPROM** tab at the top of the window is selected.
- Click **Devices** and then **Scan and Parse**. The FT2232H should be detected. If there are other USB devices from the same manufacturer connected, click on the DEVICE line for each device in the left hand box until the FT2232H is found.

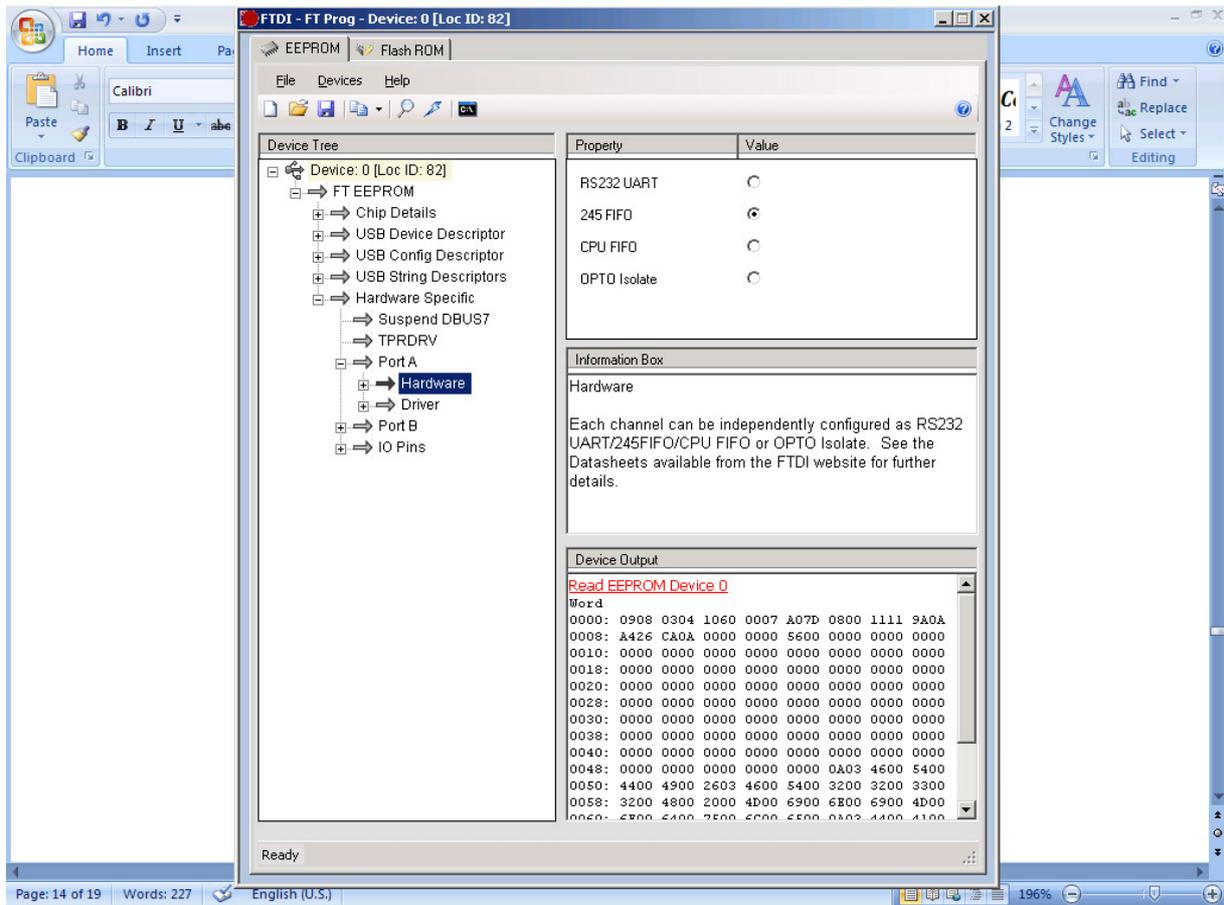
- In the left hand box, click **USB Config Descriptor**.
In the right hand box, set **Max Bus Power** to 250mA.



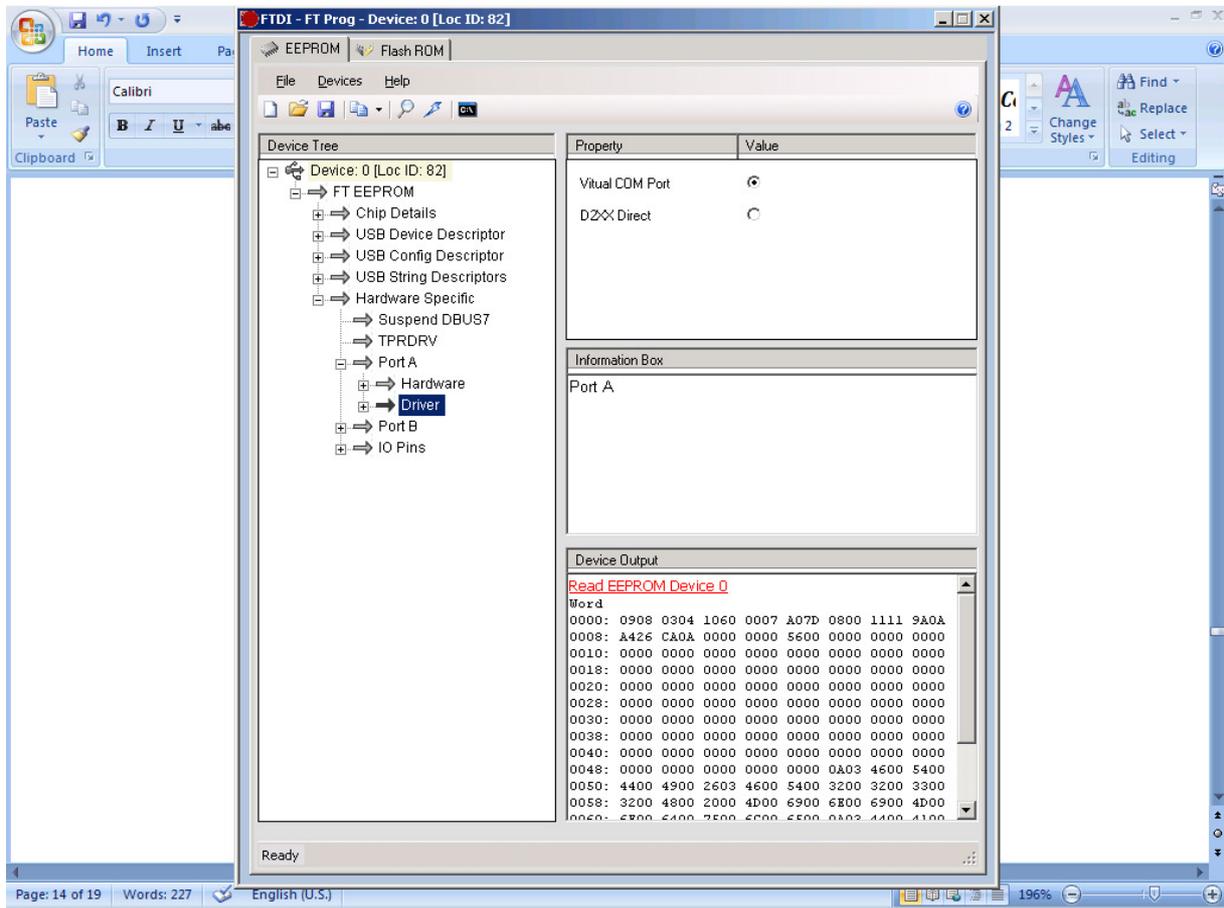
- In the left hand box, click **USB String Descriptors**.
 In the right hand box, tick **Serial Number Enabled**.
 In the right hand box, untick **Auto Generate Serial No.**
 In the right hand box, set **Serial Number** to DATV.



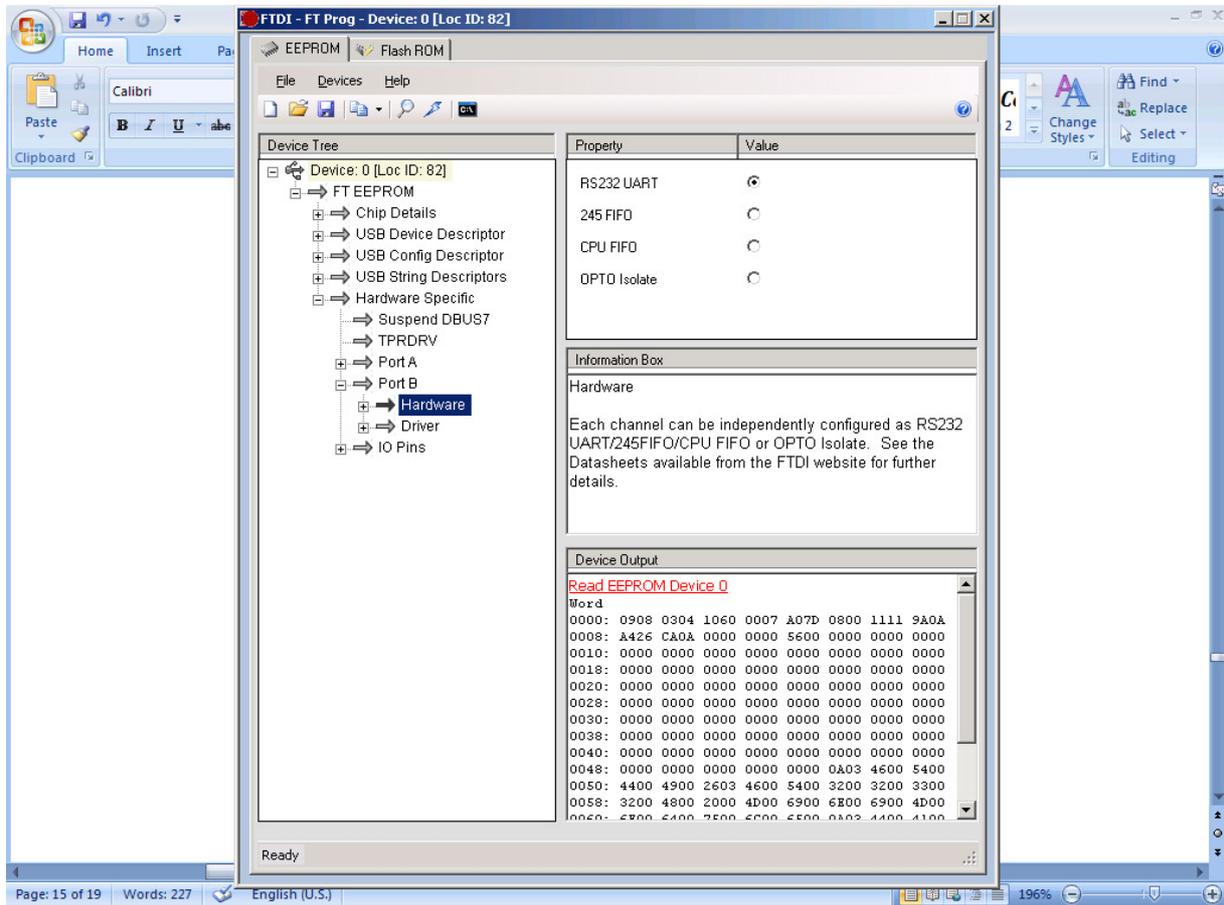
- In the left hand box, click the + sign next to **Hardware Specific**.
- In the left hand box, click the + sign next to **Port A**.
- In the left hand box, click **Hardware** on the next line down.
In the right hand box, select **245 FIFO**.



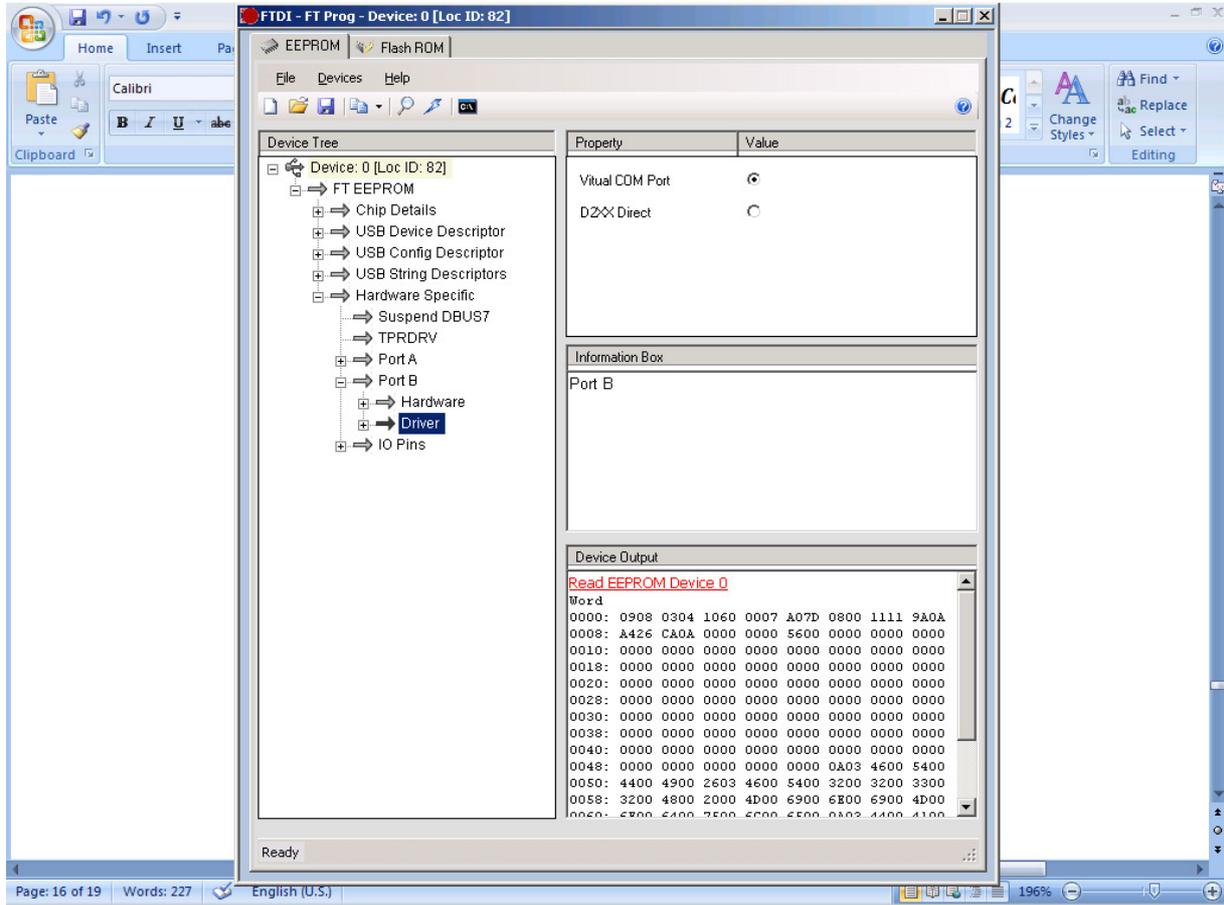
- In the left hand box, click **Driver** on the next line down.
In the right hand box, select **Virtual Com Port** (if not already selected).



- In the left hand box, click the **+** sign next to Port B.
- In the left hand box, click **Hardware** on the next line down.
In the right hand box, select **RS232 UART** (if not already selected).



- In the left hand box, click on **Driver** on the next line down.
In the right hand box, select **Virtual Com Port** (if not already selected).

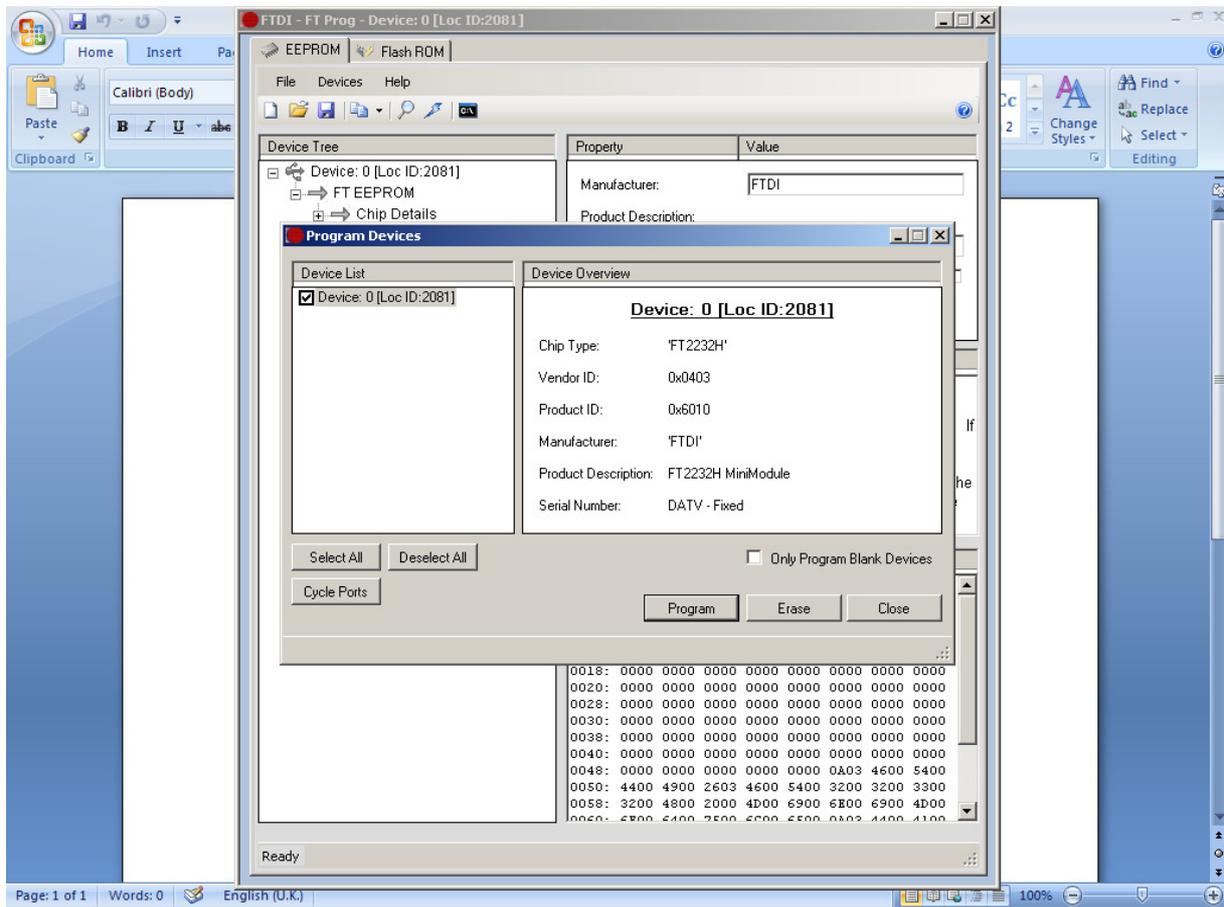


Programming the Configuration

- Near the top of the Window, click **Devices** and then click **Program**. A new window appears.

If more than one device is shown, make sure that only the FT2232H device is ticked. Look at the previous (main) window for the device number.

- Click **Program**
It should only take a few seconds and then **Finished Programming** should appear in the bottom left of this window.
- Close the programming window, close FT_PROG and disconnect the FT2232H.



Checking the Configuration

- Reconnect the FT2232H.
- Run FT_PROG and go back up to Editing the Configuration and check that **Port A Hardware** is set to 245 FIFO.
- Close FT_PROG.

Finding which COM ports have been assigned

- Look in Windows Control Panel / System / Hardware / Device Manager / Ports. They should appear as **USB Serial Port**.
 - If you are not sure which are the FT2232H ports, unplug the FT2232H and reconnect to see which ports disappear and reappear.
 - After configuration, these port numbers will remain the same whichever USB port the FT2232H is connected to.
 - In DigiLite Config, enter the lower port number as the DATA port and the higher as the CONTROL port.
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