# CleverBoard & Merlot

If you are using a graphics heavy program, there may be a resulting conflict within the PC or Laptop you are using which shows itself as a "Merlot" error. This is caused by a conflict of interrupts occurring within the computer.

As there are so many devices now loaded onto modern computers and only a limited number of IRQ's (designated interrupt number) available, the IRQ's are pooled and several devices may share the same IRQ. The sharing can, in certain circumstances, quite literally cause a 'crash' within the IRQ pool, which is when the Merlot error appears.

There is a solution to the problem and it requires a re-allocation of the CleverBoard into a different USB port, and therefore a re-allocation of the CleverBoard and the graphics program into different IRQ's.

1.   Open device manager. (Click on start menu, go to My Computer, right click, and choose properties. Switch to hardware tab and click on "Device Manager")
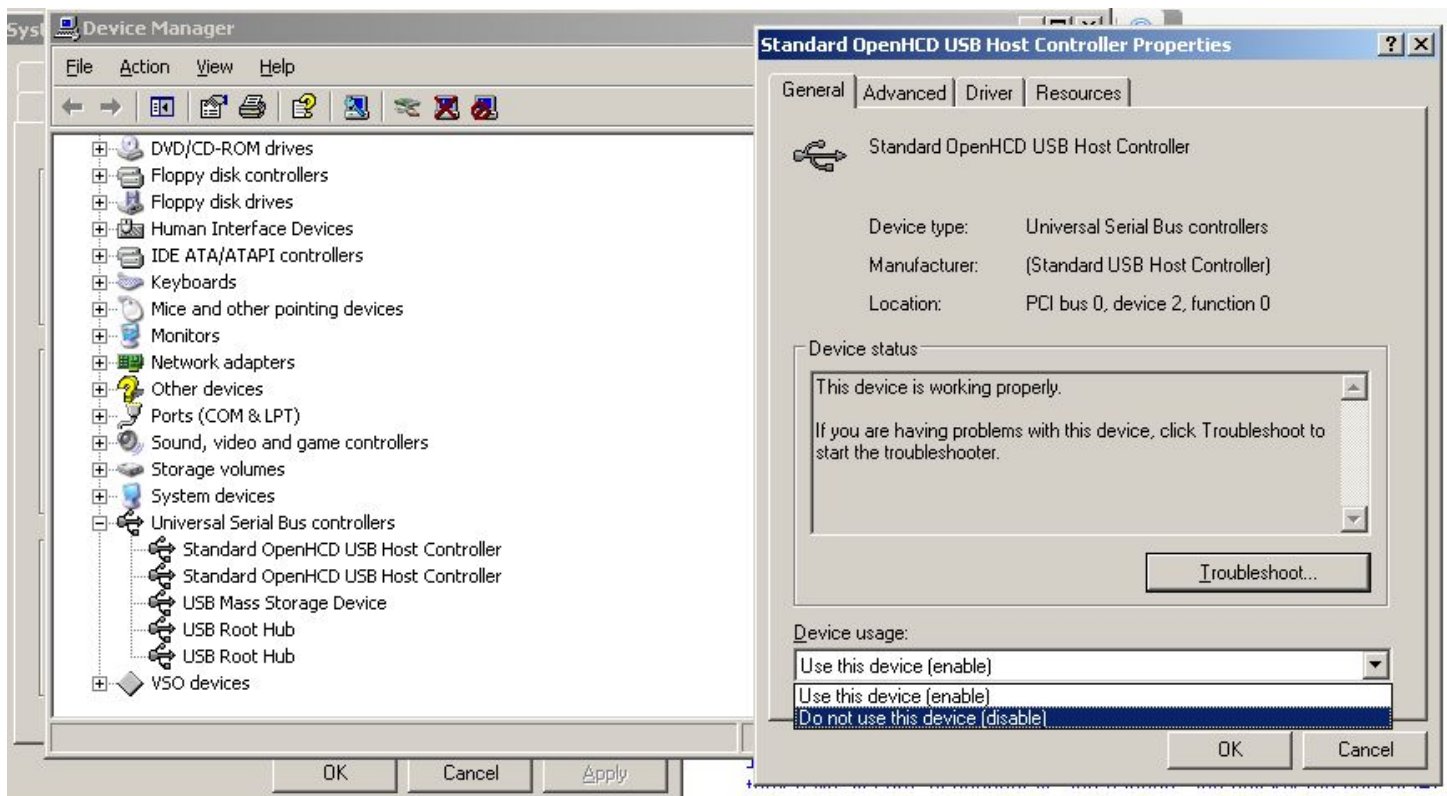
2. Now open up the "Universal Serial Bus controllers".

3. If you have the CleverBoard connected at this point then you will notice a mimeo device in this list.

4. Typically there will be two "host controllers". Double click the first one. Choose to disable it - as shown above.

5. Select ok. Watch and see whether the mimeo device has disappeared. If it remains then double click the first controller again and re-enable it. Then double click the second one and disable that. This time the mimeo device should disappear. **(Note: if your mouse stops working read addendum A below)**

6. Disconnect the CleverBoard and reconnect in a different USB port. If the mimeo device does NOT reappear in the device manager list then disconnect again and try a different one; repeat until it does reappear in the list. If necessary pull out other USB devices and connect them to the port the CleverBoard was originally in.

7. Double click the host controller that is currently disabled and re-enable it. If you had to swap out another USB device the computer might whirr away for a bit reloading drivers but everything should sort itself out.

You have successfully relocated the CleverBoard onto a different IRQ!


So you have two solutions here based around the same idea. The definitive 7 steps to relocate to a new IRQ or, for the feint-hearted, simply reconnect the CleverBoard to a new USB port and try again.

Addendum

A. If when attempting to disable a USB controller in the steps outlined above your mouse stops working then you probably have a USB mouse! Track where the mouse is connected to and relocate to a different USB port until it starts working again.

B. In order to determine if there actually is an IRQ conflict do the following.

1. Open up device manager (see above on how to do that)

2. Go to the view menu and select "Resources by Type" as below:
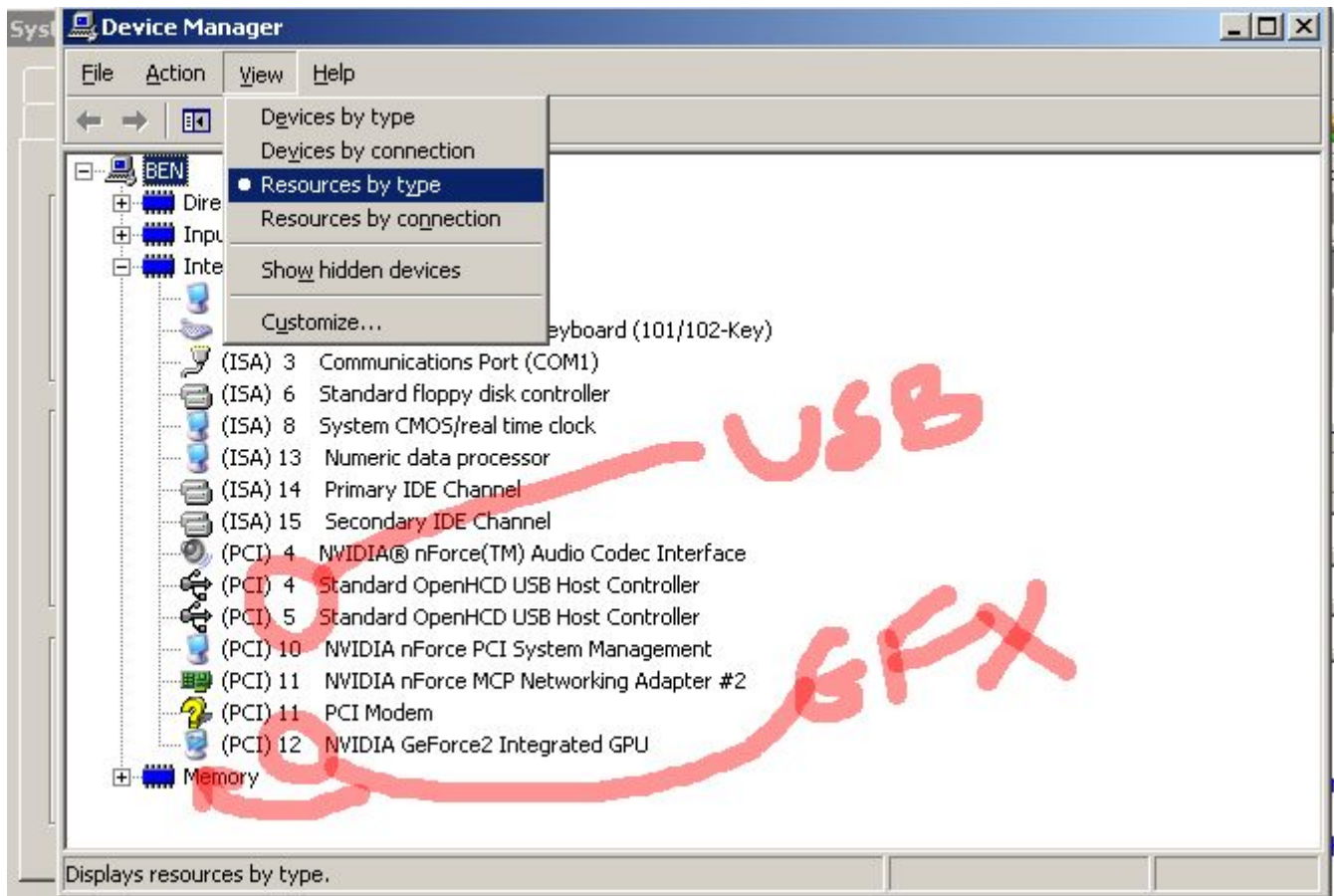
3.   Open up "Interrupt request (IRQ)"

4.   Identify the IRQ number allocated by the USB ports as shown above

5.   Identify the iRQ used by graphics card. Graphics cards have a little image of a monitor on the left hand column as indicated.

6.   If the numbers are the same then there is IRQ sharing / conflict.

7.   Note on my system above that my graphics card has an IRQ of 12 all to itself which is desirable. Also notice, as an example of this "IRQ sharing" idea, that IRQ 4 is being shared between one of my USB ports and the sound card.