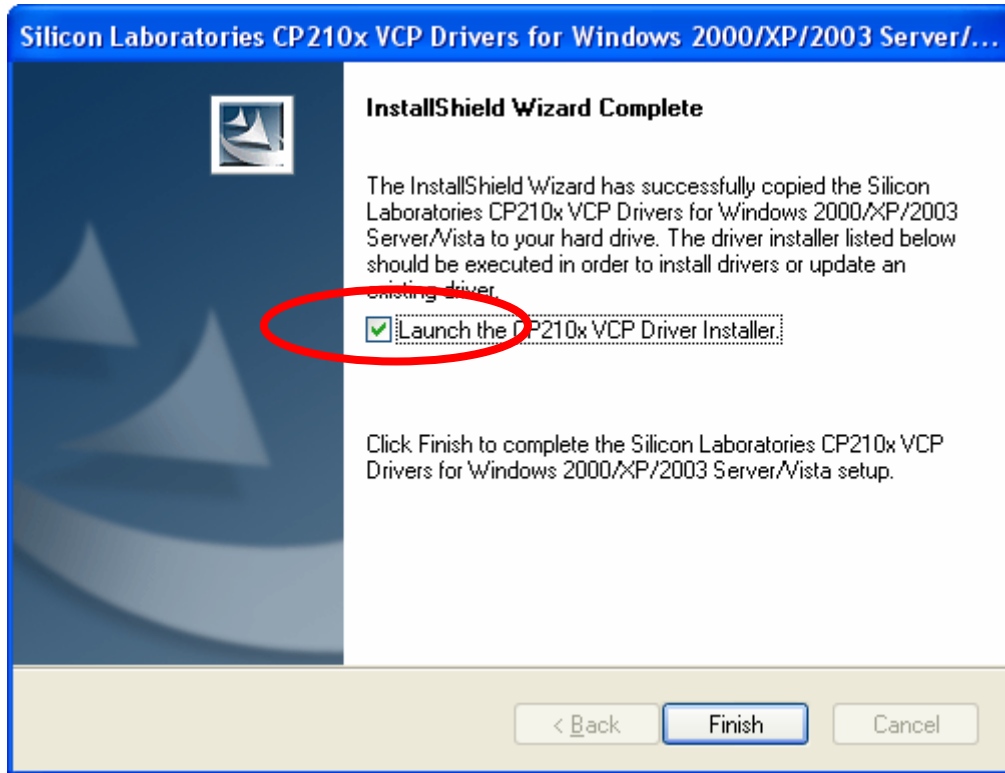


Updating the 1541-III's firmware

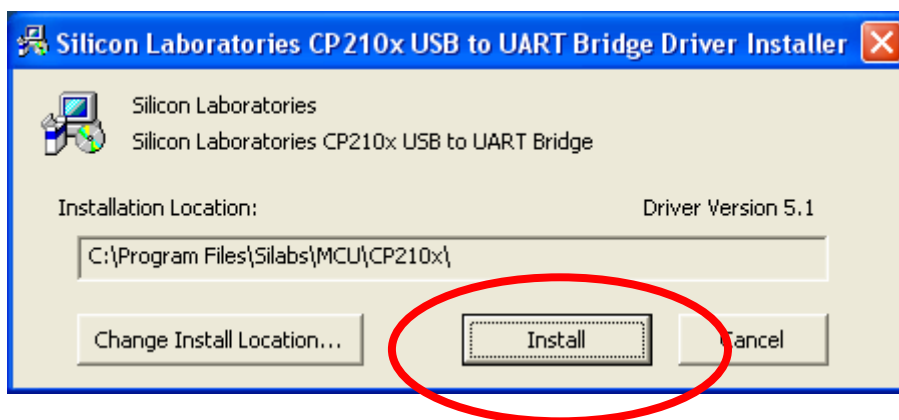
Do not connect the 1541-III to your PC! First install the USB-driver !

Install the USB-driver on your Windows PC : **CP210x_VCP_Win2K_XP_S2K3.exe**

Attention: when you think that you've installed all and want to click on Finish... hold.... because you've only unpacked the required files and the actual installation has not even started.



Select the option circled in red and then click on finish. Then a requester appears that gives you the possibility of installing the driver to a specified path. Just click install and ignore this option, simple because by experience I can tell you that you are most likely to choose the one-an-only path that the programmers did not expect you to choose and then you end up with a faulty installation that is crippled or does not work. So again, just click on Install.



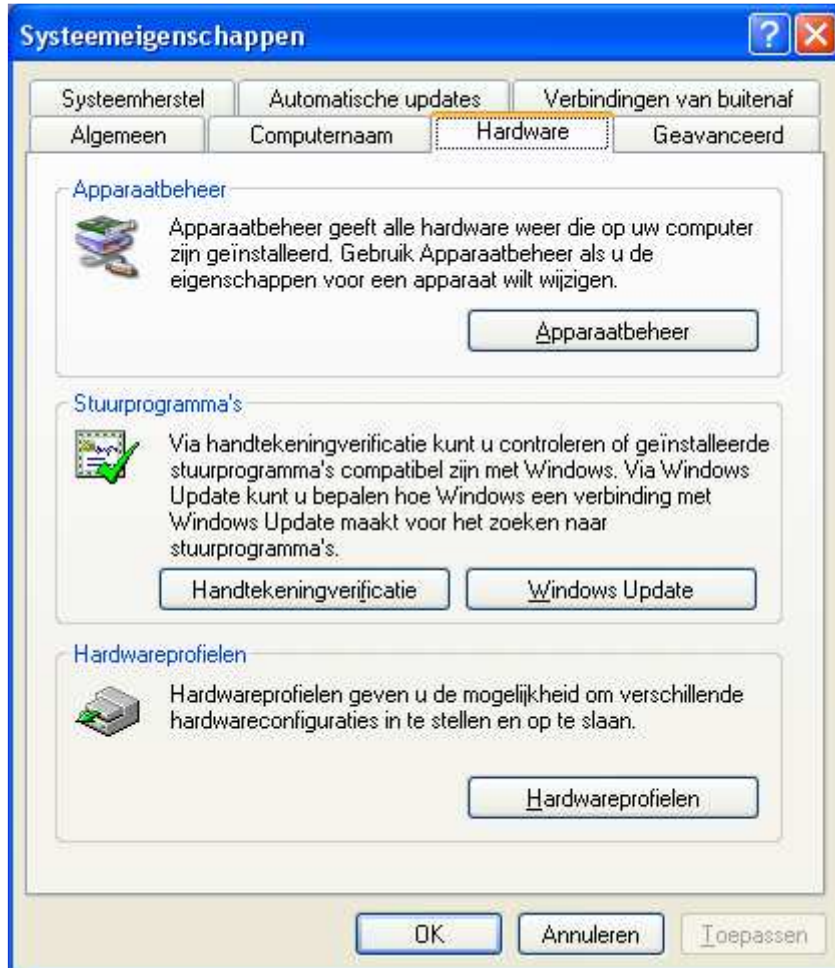
Updating the 1541-III's firmware

Now the driver is installed you can connect the 1541-III to your PC. And in order to find out to which COM-port the 1541-III's USB driver is pointing you must check the system properties.

Click on : Start -> Configuration -> System

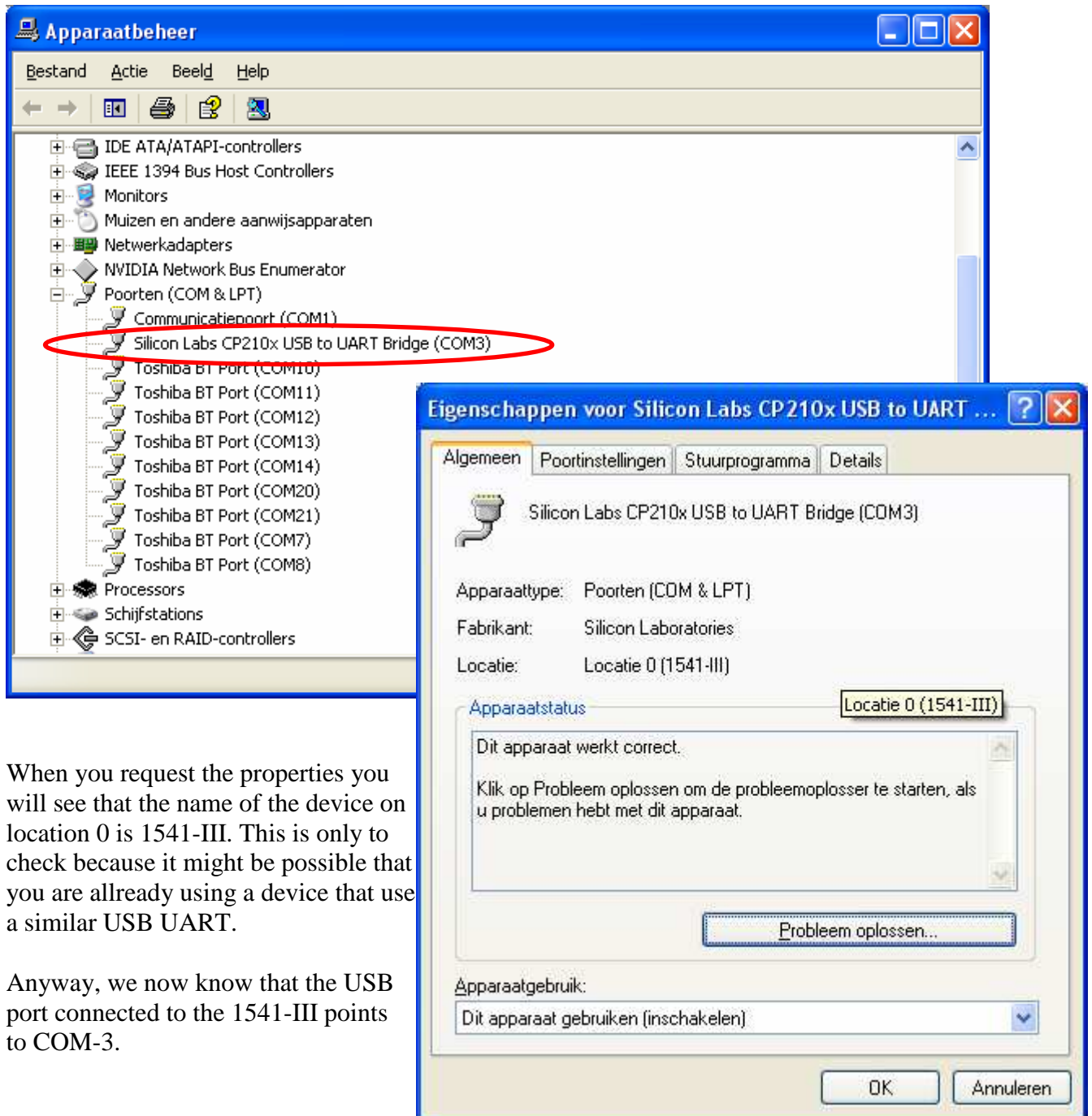
Click on the tab "Hardware" and the on the button "Device manager"

(in Dutch "Device manager" is called "Apparaatbeheer")



Updating the 1541-III's firmware

Then a structure with all the installed parts of your computer shows up. In the section “Ports (COM & LPT)” must be displayed the entry “CP210X USB to UART Bridge” this is the USB UART of the 1541-III. According to our example the 1541-III's USB driver is installed and pointing to COM3.

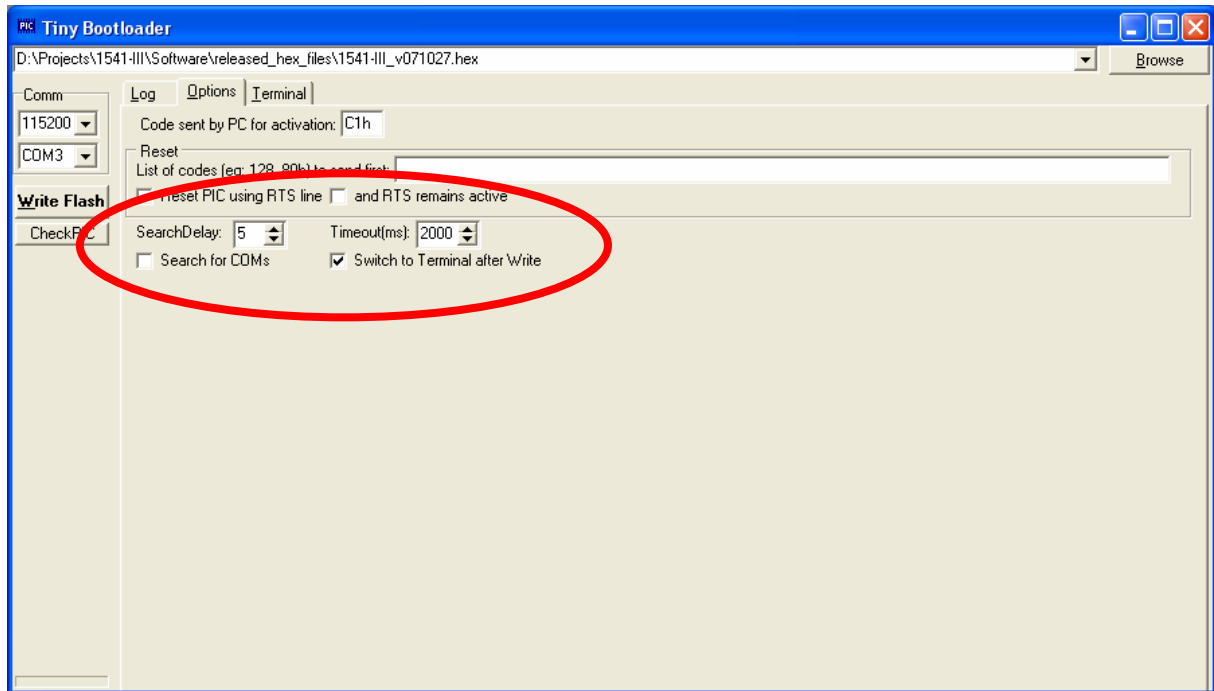


When you request the properties you will see that the name of the device on location 0 is 1541-III. This is only to check because it might be possible that you are already using a device that use a similar USB UART.

Anyway, we now know that the USB port connected to the 1541-III points to COM-3.

Updating the 1541-III's firmware

Now start the application “tinybootloader.exe” and choose the tab “Options”. We need to set the following settings:



Attention:

Search delay:

The search delay must be set to 5 seconds, this is the time you have between the switching on of your 1541-III (using the switch **POWER**) and the clicking on the “Write Flash”-button.

Timeout(ms):

The timeout(ms) value determines how long a disturbance on the USB-bus may take. Actually this value is meant for ordinary RS-232 communication which works completely different and large delays are very unusual. However the USB bus works differently and we must set this value to 2500mSec (the default value of 300mSec is insufficient for USB communication). When you’ve also have a 1541-III working with the RS-232 connection you may discover that the RS-232 is much faster, this is normal behaviour and totally acceptable as the firmware upgrade procedure is something you do only once (every few months.).

Switch to terminal after write:

This setting is very usefull as it switches the screen to terminal mode after writing and doing so you are informed by the 1541-III that the firmware upgrade was succesfull.

Updating the 1541-III's firmware

Now the part it is all about. This part of this manual is the only part you need to repeat as all the settings are store don your PC and the USB driver also only needs to be installed once.

Disconnect the 1541-III and remove the USB/cassettepoort adapter. To activate the bootloader inside the 1541-III, slide the switch **Bootldr** all the way up (bootloader active). When the 1541-III would now be used the bootloader will after reset / power-on during 5 seconds searching for the bootloader application. When no connection could be made the 1541-III will start normally. The switch **POWER** must be all the way down in the OFF position. Place the USB connector into the USB port of your computer.

Select the tab “Log” and using the button “Browse” you can select the firmware version of your choice (in this case “1541-III.hex”). Select the com-poort to which the 1541-III’s USB driver is installed (in this case COM1) and set the speed of the port to 115200. Press the button “Write Flash” and switch (within 5 seconds) the 1541-III ON, using the switch **POWER** (slide it all the way up). On your screen now will appear that the contact with the 1541-III’s microcontroller is made and that the firmware is being transferred..



When this does does not work the 1st, 2nd, 3rd time, just switch the 1541-III OFF, click on the write flash button and switch the 1541-III ON. You can also try another method and that is by switching on the 1541-III first nd then within 5 seconds click on the “Write Flash” button.

Be patient... sometimes it apears that the application does not respond although it did respond with the message “Found: 18F2620/4620”. This could be because the computer is very busy and has no time to update the progressbar in the left bottom of the screen. When the system does not show any progress within 5 minutes, then close the application, disconnect the 1541-III, wait 1 minute and start the procedure again.

When the transfer is ready the application will switch to the terminal mode and the 1541-III will show (5 seconds later, due to the bootloaders 5 second “delay”) that the new firmware is functional. Close the application, disconnect the 1541-III from the computer. Set the switch “**Bootldr**” back into the off position (slide swich all the way down).

And now the 1541-III is ready for use.

