

## CNC310/CPU5 Configurator tool

This tool is used to download firmware to the CNC310, CPU5A or CPU5B board. It is available from the EdingCNC website at the download page. You need to install all 3 packages, package 2 and 3 may already be on your system, just try the Configurator tool and see if it works.

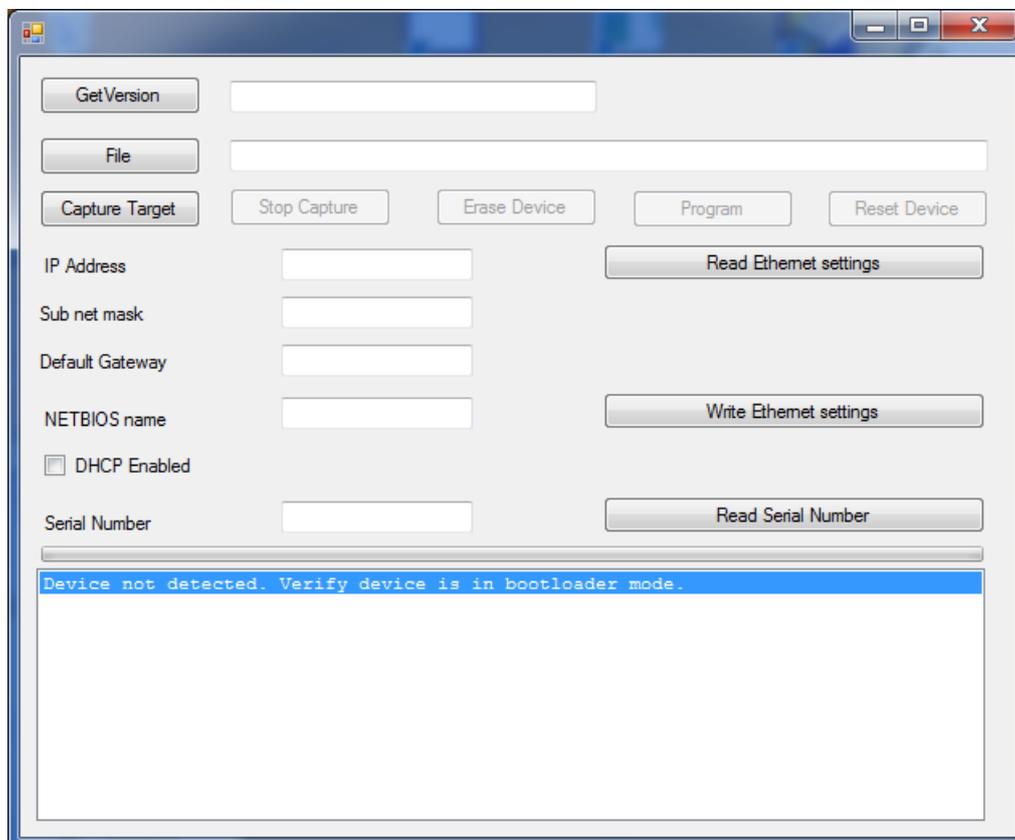
You can get these required packages from the Eding CNC download page.

1. Configurator Tool. This tool requires Microsoft .NET Framework 4
2. Visual C++ Redistributable Package (x86)
3. Get the firmware from the Eding CNC download page. Be carefully there are different firmware's depending on the controller and depending on the communication USB or Ethernet.

Firmware is always downloaded by the USB cable, also for Ethernet based controllers

## Downloading Firmware

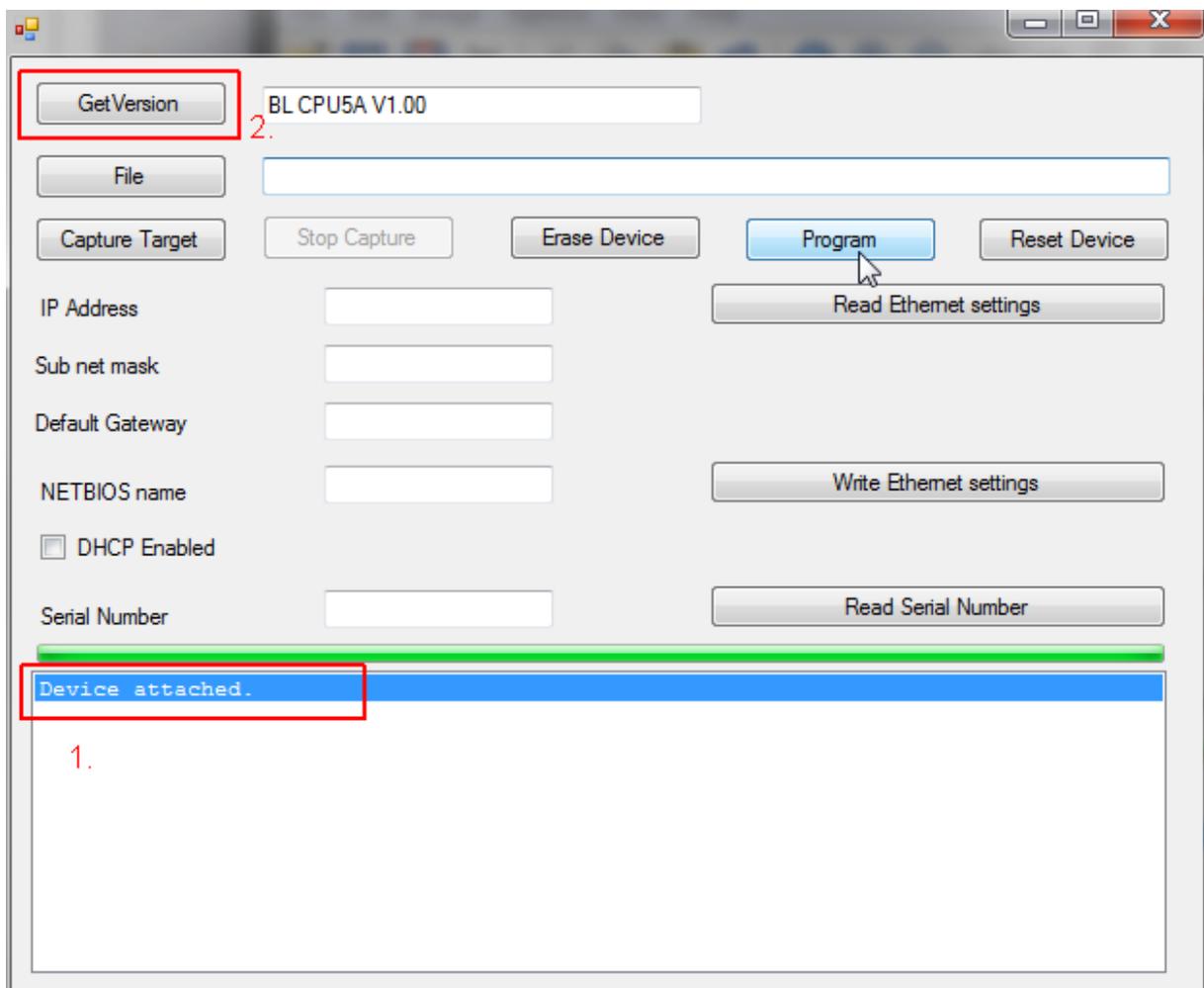
**Step1:** Start the tool



**Step 2:** In case of external power, first disconnect the power, connect the USB cable, then reconnect the power.

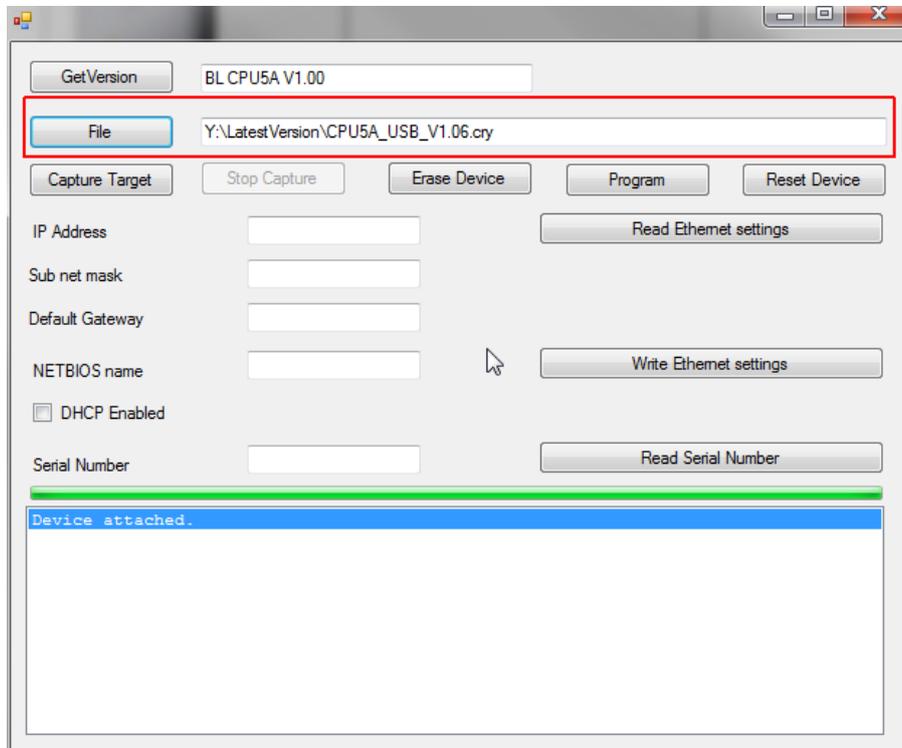
Watch for "Device attached" in the message window.

**Step 3:** Click within 5 seconds on "**Get version**" or "**Capture target**". The controller will remain in bootloader mode as indicated by the status LEDs.

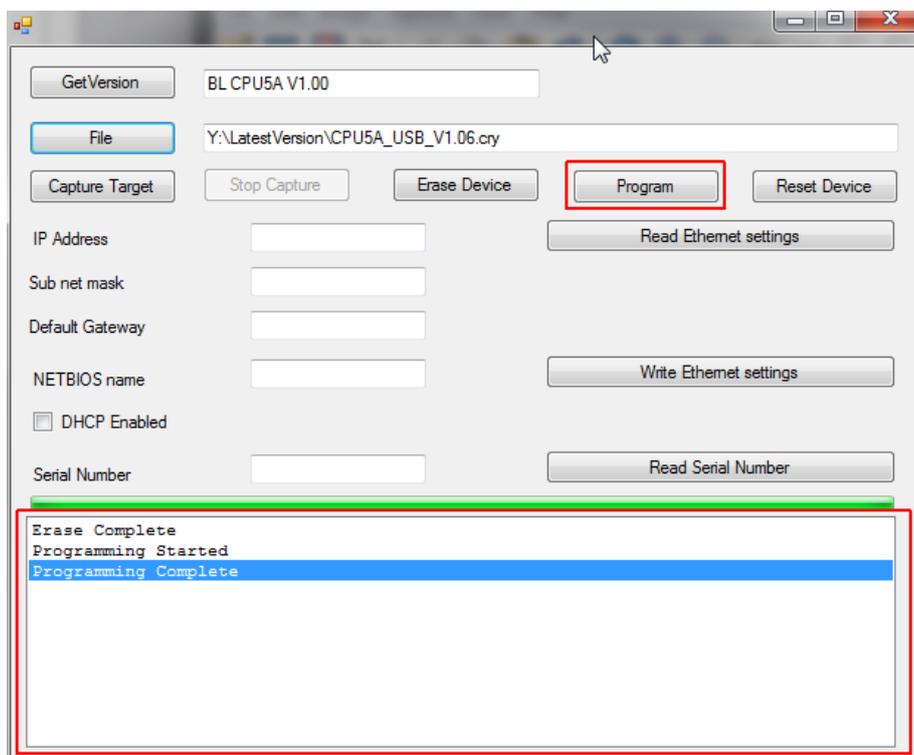


Only in bootloader mode it is possible to download firmware.

**Step 4:** Choose "File" and select the firmware file, in this example we will download the USB firmware for CPU5A.



**Step 5:** Press "Program"



**Step 6:** Finished, the device is now programmed, this takes a few seconds only. You are ready to go with the new firmware. If the controller is a USB controller you can disconnect the POWER or remove the USB cable.

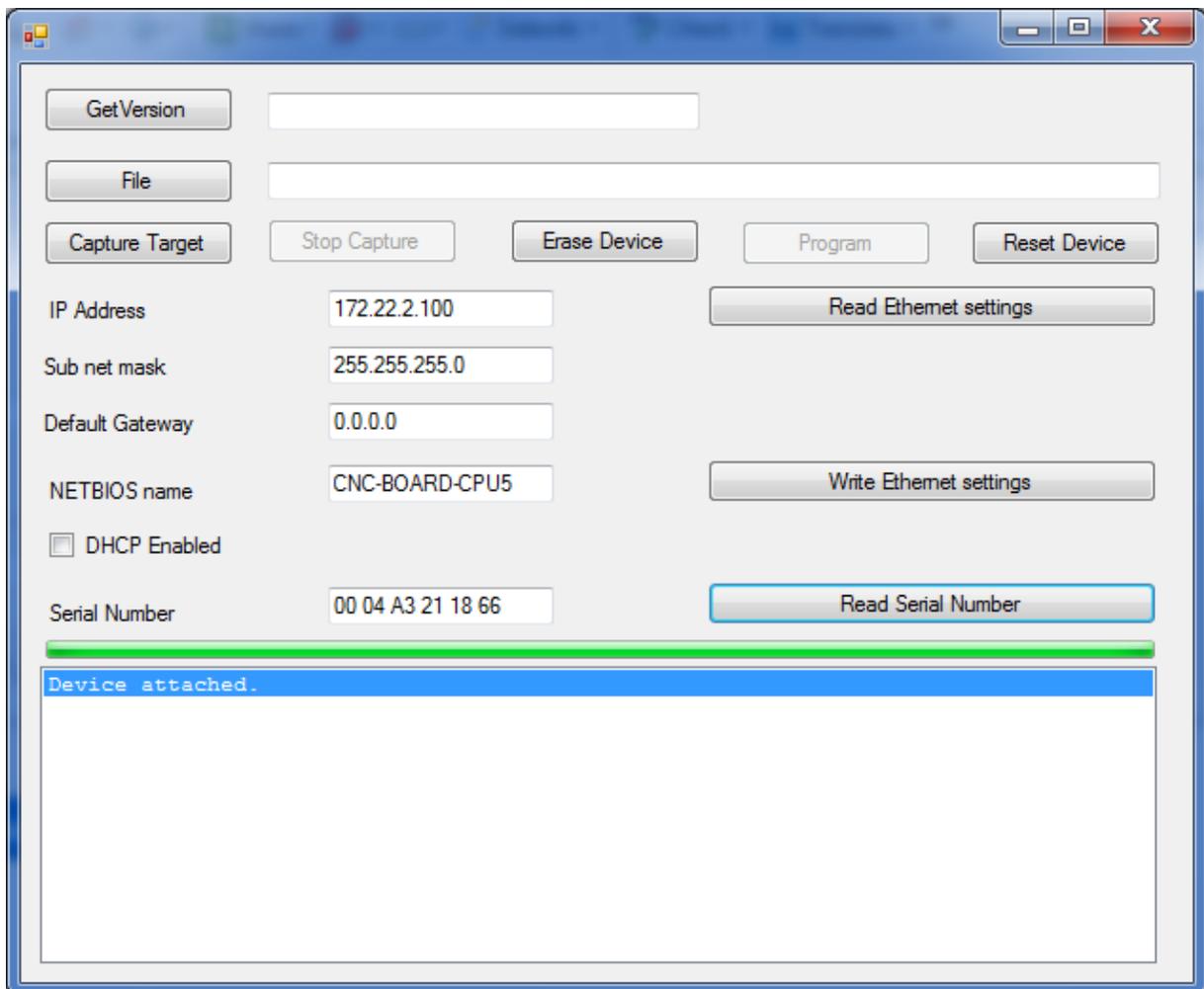
**Step 7:** Close the application and start use the controller as normally. The bootloader mode should be skipped now after about 5 seconds, and the application should start. If you have an ethernet controller please, read the next pages.

**The next part is only for Ethernet boards and firmware, you can skip this if you have and USB controller card.**

## Setting up the Ethernet settings on the CPU board

Note: when you just obtained an Ethernet board the settings below are already applied, there is normally no need to change this.

When the programming has been performed, press “Read Ethernet settings”, it shows:



You see, the IPADDRESS is 172.22.2.100, Subnet mask is 255.255.255.0 please use the same settings as shown. Be sure to leave the gateway at 0.0.0.0 and DHCP unchecked. NETBIOS name can be any name.

Save setting with button “Write Ethernet Settings”.

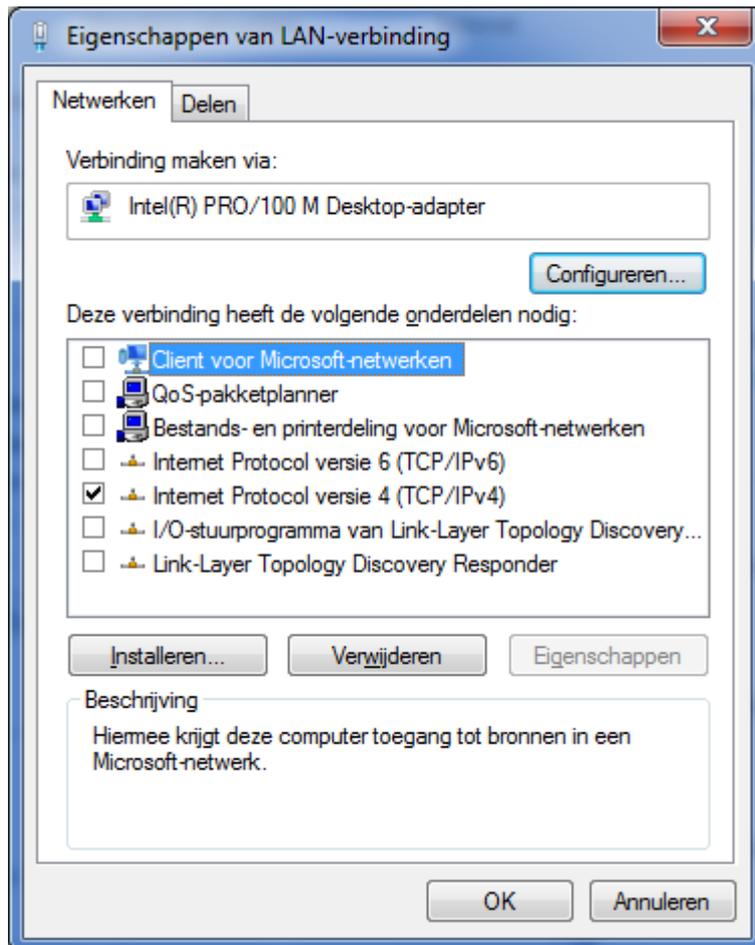
Now you are done, you can press “Reset” to reset the processor, it will first enter boot load mode and after approx 5 seconds it will start the downloaded firmware. LED 3 will flash at a rate of approx 1 second.

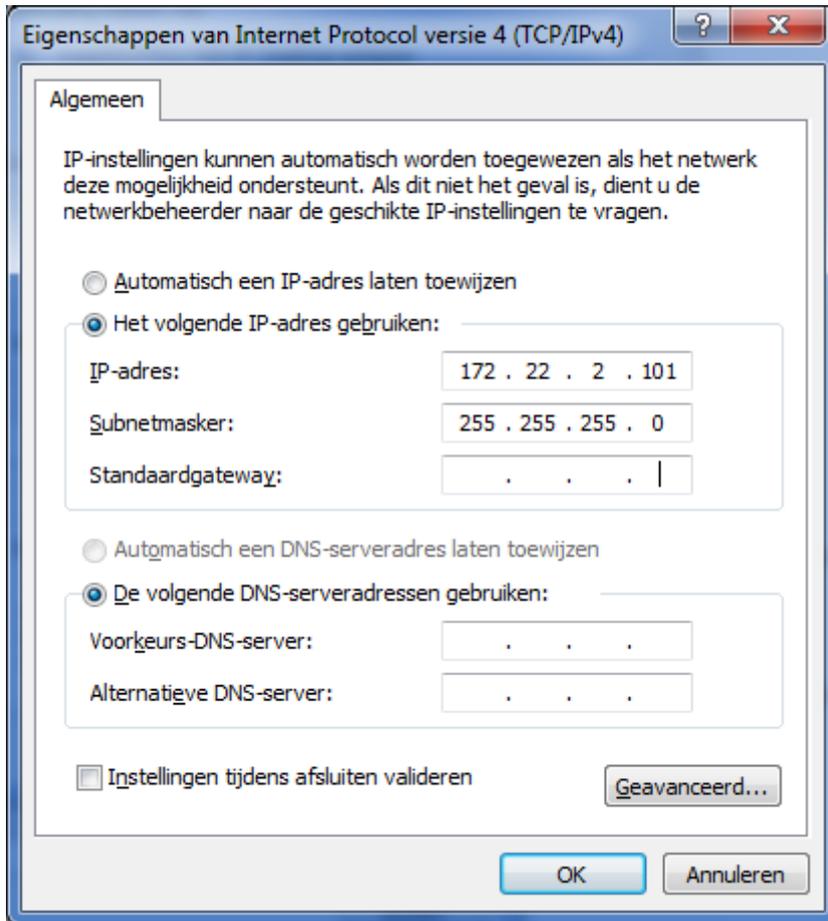
You can disconnect the USB cable, it is no longer needed.

## Setup network Card on Windows.

In this example an Intel PRO/100M card is used in a desktop PC. This card is a second network card connected **ONLY** to the controller using a UTP **CROSS** Cable.

Here are the settings, they must be applied exactly as show here:





Be sure to leave the standard gateway empty.

To check that the Ethernet settings are ok, open a command prompt and type ping 172.22.2.100:

```
Administrator: C:\Windows\system32\cmd.exe
Microsoft Windows [versie 6.1.7600]
Copyright (c) 2009 Microsoft Corporation. Alle rechten voorbehouden.

C:\Users\Bert>ping 172.22.2.100

Pingen naar 172.22.2.100 met 32 bytes aan gegevens:
Antwoord van 172.22.2.100: bytes=32 tijd<1 ms TTL=100

Ping-statistieken voor 172.22.2.100:
    Pakketten: verzonden = 4, ontvangen = 4, verloren = 0
    (0% verlies).

De gemiddelde tijd voor het uitvoeren van één bewerking in milliseconden:
    Minimum = 0ms, Maximum = 0ms, Gemiddelde = 0ms

C:\Users\Bert>
```



Start the Eding CNC software and in the setup at "Connection to CPU" leave on "AUTO", the detected controller will be connected.