

#### **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

GetVersion				
File				
Capture Target	Stop Capture	Erase Device	Program	Reset Device
IP Address			Read Ethemet	settings
Sub net mask				
Default Gateway				
NETBIOS name			Write Ethernet	settings
DHCP Enabled				
Serial Number			Read Serial N	umber
Device not detec	ted. Verify device	is in bootloade	er mode.	



**<u>Step 2</u>**: 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.

<u>Step 3</u>: Click within 5 seconds on "*Get version*" or "*Capture target*". The controller will remain in

bootloader mode as indicated by the status LEDs.

•••			
GetVersion	BL CPU5A V1.00		
File			
Capture Target	Stop Capture	Erase Device	Program Reset Device
IP Address			Read Ethernet settings
Sub net mask			
Default Gateway			
NETBIOS name			Write Ethemet settings
DHCP Enabled			
Serial Number			Read Serial Number
Device attached	i.		
1.			

Only in bootloader mode it is possible to download firmware.



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

-				
GetVersion	BL CPU5A V1.00		]	
File	Y:\LatestVersion\CPU5A_USB_V1.06.cry			
Capture Target	Stop Capture	Erase Device	Program	Reset Device
IP Address			Read Ethemet	t settings
Sub net mask				
Default Gateway				
NETBIOS name		2	Write Ethernet	settings
DHCP Enabled				
Serial Number			Read Serial 1	Number
Device attached	l.			
L				

### Step 5: Press "Program"

•				
GetVersion	BL CPU5A V1.00		3	
File	Y:\LatestVersion\CPU	5A_USB_V1.06.cry		
Capture Target	Stop Capture	Erase Device	Program	Reset Device
IP Address			Read Ethemet	settings
Sub net mask				
Default Gateway				
NETBIOS name			Write Ethernet	settings
DHCP Enabled				
Serial Number			Read Serial N	lumber
Erase Complete Programming Sta Programming Com	rted plete			



**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 controllers is a USB controller you can disconnect the POWER or remove the USB cable.

**Step 7:** Close the application and start use the controlled as normally. The bootloader modus should be skipped now after about 5 seconds, and the application should start. If you have a 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.

	- 8- cr / Sault - 7-5	
GetVersion		
File		
Capture Target	Stop Capture Erase Device	Program Reset Device
IP Address	172.22.2.100	Read Ethemet settings
Sub net mask	255.255.255.0	
Default Gateway	0.0.0.0	
NETBIOS name	CNC-BOARD-CPU5	Write Ethernet settings
DHCP Enabled		
Serial Number	00 04 A3 21 18 66	Read Serial Number
Device attached.		

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

You see, the IPADRESS 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:

Eigenschappen van LAN-verbinding		
Netwerken Delen		
Verbinding maken via:		
Intel(R) PRO/100 M Desktop-adapter		
Configureren		
Deze verbinding heeft de volgende <u>o</u> nderdelen nodig:		
<ul> <li>Client voor Microsoft-netwerken</li> <li>QoS-pakketplanner</li> <li>Bestands- en printerdeling voor Microsoft-netwerken</li> <li>Internet Protocol versie 6 (TCP/IPv6)</li> <li>Internet Protocol versie 4 (TCP/IPv4)</li> <li>Internet Protocol versie 4 (TCP/IPv4)</li> <li>I/O-stuurprogramma van Link-Layer Topology Discovery</li> <li>Link-Layer Topology Discovery Responder</li> </ul>		
Installeren Verwijderen Eigenschappen		
Beschrijving Hiemee krijgt deze computer toegang tot bronnen in een Microsoft-netwerk.		
OK Annuleren		



Eigenschappen van Internet Protocol versie 4 (TCP/IPv4)				
Algemeen				
IP-instellingen kunnen automatisch worden toegewezen als het netwerk deze mogelijkheid ondersteunt. Als dit niet het geval is, dient u de netwerkbeheerder naar de geschikte IP-instellingen te vragen.				
Automatisch een IP-adres laten to	pewijzen			
Het volgende IP-adres ge <u>b</u> ruiken:	:			
IP-adres:	172 . 22 . 2 . 101			
Subnetmasker:	255.255.255.0			
Standaardgatewa <u>y</u> :	· · ·			
Automatisch een DNS-serveradre	Automatisch een DNS-serveradres laten toewijzen			
De volgende DNS-serveradressen gebruiken:				
Voorkeurs-DNS-server:				
Alternatieve DNS-server:	· · ·			
Instellingen tijdens afsluiten valideren <u>G</u> eavanceerd				
	OK Annuleren			

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:





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