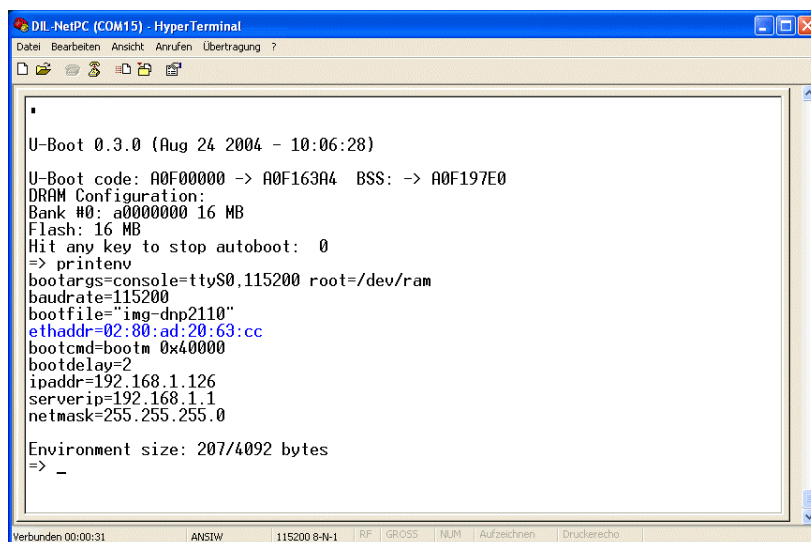## How to find the DNP/2110 Ethernet MAC Address

For some network configuration tasks (i.e. Firewall setup procedures) it can be necessary to know the Ethernet MAC address of a specific network member. The DIL/NetPC DNP/2110 offers two different ways to find out the current MAC address: 1. use the U-Boot boot loader **printenv** command or 2. use Linux **ifconfig** command.

- **1. Step**: Setup a serial link (**RS232 Serial Link**) between the DIL/NetPC DNP/2110 COM1 serial port and a serial port of your PC system. Use a null-modem cable for the physical connection between the COM1 port of the DIL/NetPC DNP/2110 and the PC COM port. For more details about this connection please use the DIL/NetPC DNP/2110 Starter Kit documentation.

- **2. Step**: Run your terminal emulation program. Microsoft Windows-based PC systems offer *HyperTerminal* for this task. Linux-based systems come with *Minicom*. Then power-up your DNP/2110.

- **3. Step with U-Boot**: Wait for the first message of U-Boot within your terminal emulation program window. Please hit any key for interrupt the U-Boot autoboot process. Then enter the command:

```
printenv
```

The U-Boot boot loader displays some environment variable. The value for **ethaddr** is the DNP/2110 MAC address.
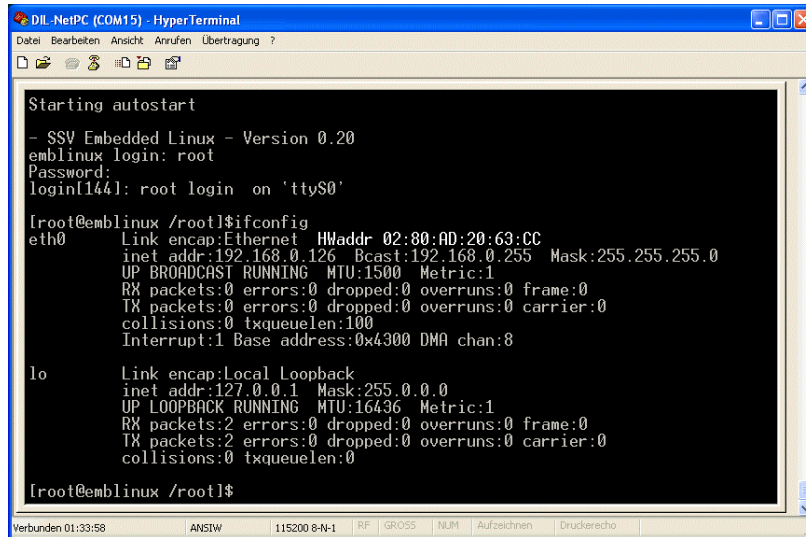

- **3. Step with Linux**: Wait until the DNP/2110 Linux ask you for a user name. Please enter the user name **root**. This user name needs no password. Just hit the Enter key if the DNP/2110 Linux ask for a password. Then enter the command:

```
ifconfig
```

The DNP/2110 Linux operating system displays some information's about the Ethernet LAN interface **eth0**. The value for **HWaddr** is the DNP/2110 MAC address.

```
DIL-NetPC (COM15) - HyperTerminal
Datei  Bearbeiten  Ansicht  Anrufen  Übertragung  ?

Starting autostart

- SSV Embedded Linux - Version 0.20
emblinux login: root
Password:
login[144]: root login  on 'ttyS0'

[root@emblinux /root]$ifconfig
eth0      Link encap:Ethernet  HWaddr 02:80:AD:20:63:CC
          inet addr:192.168.0.126  Bcast:192.168.0.255  Mask:255.255.255.0
          UP BROADCAST RUNNING  MTU:1500  Metric:1
          RX packets:0 errors:0 dropped:0 overruns:0 frame:0
          TX packets:0 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:100
          Interrupt:1 Base address:0x4300 DMA chan:8

lo        Link encap:Local Loopback
          inet addr:127.0.0.1  Mask:255.0.0.0
          UP LOOPBACK RUNNING  MTU:16436  Metric:1
          RX packets:2 errors:0 dropped:0 overruns:0 frame:0
          TX packets:2 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:0

[root@emblinux /root]$

Verbunden 01:33:58       ANSIW       115200 8-N-1    RF  GROSS   NUM   Aufzeichnen   Druckerecho
```

That is all.