

How to set the IP Address for the MB/1520-100 Ethernet LAN Interface LAN1

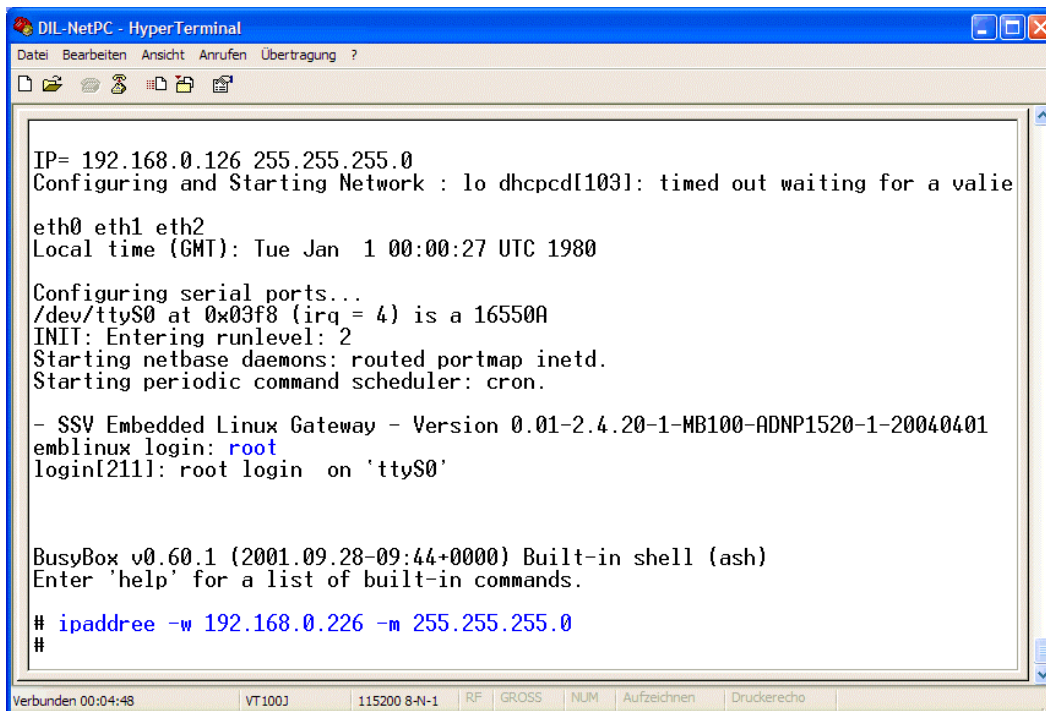
The DIL/NetPC ADNP/1520 Application Board MB/1520-100 offers three Ethernet LAN interfaces which are named **LAN1**, **LAN2** and **LAN3**. This document describes a simple way for setup a new IP address and other TCP/IP parameters for the Ethernet LAN interface **LAN1** and store the setup values to the flash configuration space.

The Embedded Gateway Linux of your ADNP/1520 Application Board MB/1520-100 contains an utility program with the name **ipaddree**. This program allows you to set a new IP address and other TCP/IP parameters for LAN1.

- **1. Step:** Setup a RS232 serial link between the MB/1520-100 and a PC system. Use a standard null-modem cable. Run a terminal (emulation) program on the PC (i.e. **HyperTerminal** for Windows-based PCs, **minicom** for Linux-based systems). Setup the line parameters to 115.200 bps, 8 data bits, 1 stop bit, no parity, no handshakes.
- **2. Step:** Booting up the MB/1520-100 and use a serial console session. Login with administrator rights (user name: **root**, no password necessary). Then execute the following command:

```
ipaddree -w 192.168.0.226 -m 255.255.255.0
```

“192.168.0.226” is a IP address. Use an IP address of your choice for your setup on this position. “255.255.255.0” is a network mask. Use a valid network mask for your IP address.

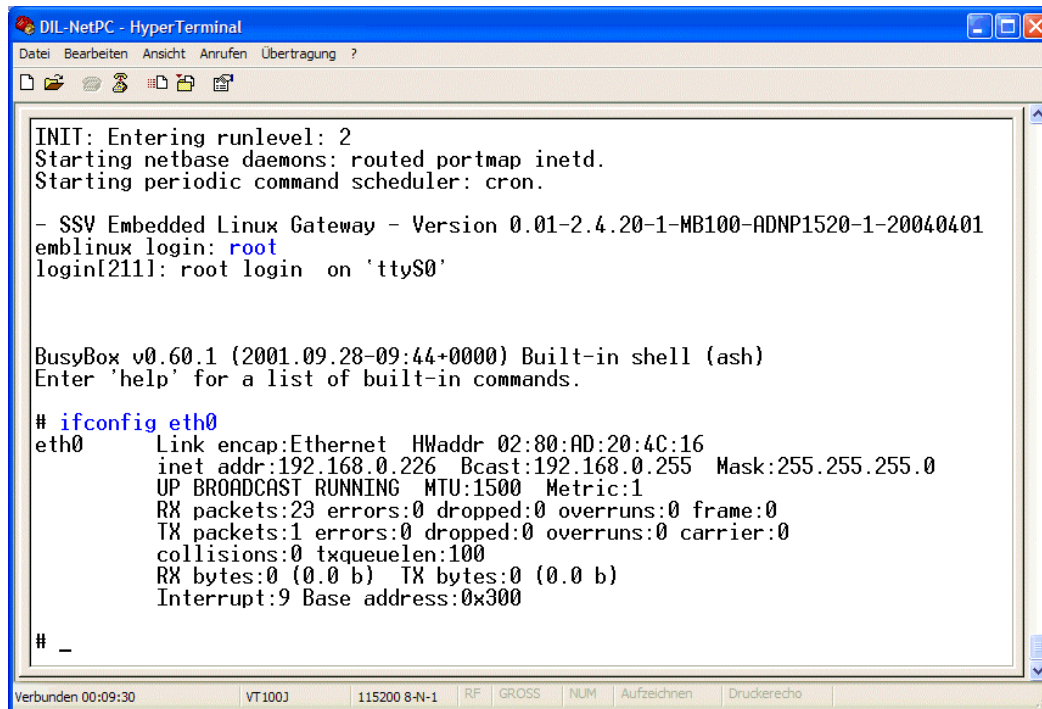


```
DIL-NetPC - HyperTerminal
Datei Bearbeiten Ansicht Anrufen Übertragung ?
[Icons]
IP= 192.168.0.126 255.255.255.0
Configuring and Starting Network : lo dhcpcd[103]: timed out waiting for a valie
eth0 eth1 eth2
Local time (GMT): Tue Jan 1 00:00:27 UTC 1980
Configuring serial ports...
/dev/ttyS0 at 0x03f8 (irq = 4) is a 16550A
INIT: Entering runlevel: 2
Starting netbase daemons: routed portmap inetd.
Starting periodic command scheduler: cron.
- SSV Embedded Linux Gateway - Version 0.01-2.4.20-1-MB100-ADNP1520-1-20040401
emlinux login: root
login[211]: root login on 'ttyS0'

BusyBox v0.60.1 (2001.09.28-09:44+0000) Built-in shell (ash)
Enter 'help' for a list of built-in commands.

# ipaddree -w 192.168.0.226 -m 255.255.255.0
#
```

- **3. Step:** Reboot the MB/1520-100. The new IP address and network mask is valid after the next boot process. The Linux device name for Ethernet LAN interface **LAN1** is **eth0**.



```
DIL-NetPC - HyperTerminal
Datei Bearbeiten Ansicht Anrufen Übertragung ?
INIT: Entering runlevel: 2
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Starting periodic command scheduler: cron.

- SSV Embedded Linux Gateway - Version 0.01-2.4.20-1-MB100-ADNP1520-1-20040401
emlinux login: root
login[2111]: root login on 'ttyS0'

BusyBox v0.60.1 (2001.09.28-09:44+0000) Built-in shell (ash)
Enter 'help' for a list of built-in commands.

# ifconfig eth0
eth0      Link encap:Ethernet  HWaddr 02:80:AD:20:4C:16
          inet addr:192.168.0.226  Bcast:192.168.0.255  Mask:255.255.255.0
          UP BROADCAST RUNNING MTU:1500 Metric:1
          RX packets:23 errors:0 dropped:0 overruns:0 frame:0
          TX packets:1 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:100
          RX bytes:0 (0.0 b)  TX bytes:0 (0.0 b)
          Interrupt:9 Base address:0x300

# _
```

Please note: The default configuration of the MB/1520-100 Embedded Gateway Linux comes with an embedded DHCP client program for Ethernet LAN interface LAN1. Within the Linux boot process this client program tries to locate a DHCP server program over the LAN1 interface and requests an IP address, if there is a DHCP server available.

If no DHCP server is available or if the IP address request to a DHCP server fails, the MB/1520-100 Embedded Gateway Linux takes the IP address which are set by the **ipaddress** utility program to the MB/1520-100 flash configuration space.

If you don't run **ipaddress** for your MB/1520-100, the Embedded Gateway Linux can not find any IP address within the flash configuration space. In this case the Embedded Gateway Linux is using the factory default value **192.168.0.126** as IP address for the LAN1 interface.

That's all.