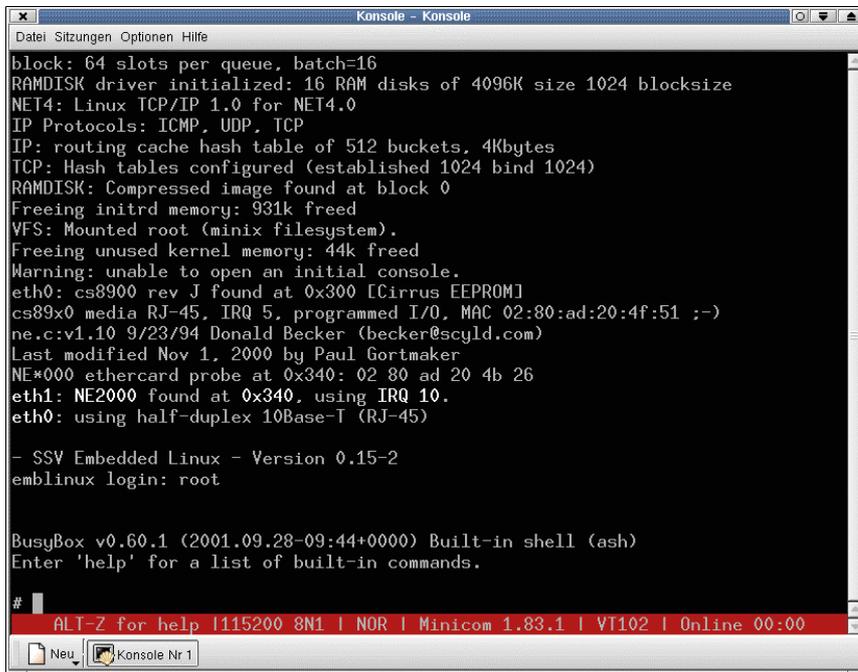


How to use the ADNP/1486 with a second LAN interface

The following steps are valid for the SSV Linux pre-configuration **PreCfg18**. This configuration comes with a second Ethernet driver for a external NE2000-based LAN interface at **0x340** and **IRQ10**.

- **1. Step:** Set-up a RS232 serial link between the ADNP/1486 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). Set-up the line parameters to 115.200 bps, 8 data bits, 1 stop bit, no parity, no handshakes. Within the boot process the ADNP/1486 shows the default I/O address **0x340** and the interrupt line **IRQ10** for the external NE2000 LAN interface. Make a login with admin rights.



```
Konsole - Konsole
Datei Sitzungen Optionen Hilfe
block: 64 slots per queue, batch=16
RAMDISK driver initialized: 16 RAM disks of 4096K size 1024 blocksize
NET4: Linux TCP/IP 1.0 for NET4.0
IP Protocols: ICMP, UDP, TCP
IP: routing cache hash table of 512 buckets, 4Kbytes
TCP: Hash tables configured (established 1024 bind 1024)
RAMDISK: Compressed image found at block 0
Freeing initrd memory: 931k freed
VFS: Mounted root (minix filesystem).
Freeing unused kernel memory: 44k freed
Warning: unable to open an initial console.
eth0: cs8900 rev J found at 0x300 [Cirrus EEPROM]
cs89x0 media RJ-45, IRQ 5, programmed I/O, MAC 02:80:ad:20:4f:51 ;-)
ne.c:v1.10 9/23/94 Donald Becker (becker@scyld.com)
Last modified Nov 1, 2000 by Paul Gortmaker
NE*000 ethercard probe at 0x340: 02 80 ad 20 4b 26
eth1: NE2000 found at 0x340, using IRQ 10.
eth0: using half-duplex 10Base-T (RJ-45)

- SSV Embedded Linux - Version 0.15-2
emblinux login: root

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

#
ALT-Z for help 115200 8N1 | NOR | Minicom 1.83.1 | VT102 | Online 00:00
```

- **2. Step:** Check out the default IP addresses for both Ethernet LAN interface. Use the Linux `ifconfig` command for that task.

```

Konsole - Konsole
Datei Sitzungen Optionen Hilfe
eth0  Link encap:Ethernet HWaddr 02:80:AD:20:4F:51
      inet addr:192.168.0.126 Bcast:192.168.0.255 Mask:255.255.255.0
      UP BROADCAST RUNNING MULTICAST 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
      RX bytes:0 (0.0 b) TX bytes:0 (0.0 b)
      Interrupt:5 Base address:0x300

eth1  Link encap:Ethernet HWaddr 02:80:AD:20:4B:26
      inet addr:192.168.2.126 Bcast:192.168.2.255 Mask:255.255.255.0
      UP BROADCAST RUNNING MULTICAST MTU:1500 Metric:1
      RX packets:94 errors:0 dropped:0 overruns:0 frame:0
      TX packets:93 errors:0 dropped:0 overruns:0 carrier:0
      collisions:0 txqueuelen:100
      RX bytes:6914 (6.7 kb) TX bytes:6854 (6.6 kb)
      Interrupt:10 Base address:0x340

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:4 errors:0 dropped:0 overruns:0 frame:0
      TX packets:4 errors:0 dropped:0 overruns:0 carrier:0
      collisions:0 txqueuelen:0
      RX bytes:512 (512.0 b) TX bytes:512 (512.0 b)

#
ALT-Z for help |115200 8N1 | NOR | Minicom 1.83.1 | VT102 | Online 00:01

```

- **3. Step:** Check each Ethernet connection with a ping. Watch the results.

```

Konsole - Konsole
Datei Sitzungen Optionen Hilfe
      inet addr:127.0.0.1 Mask:255.0.0.0
      UP LOOPBACK RUNNING MTU:16436 Metric:1
      RX packets:4 errors:0 dropped:0 overruns:0 frame:0
      TX packets:4 errors:0 dropped:0 overruns:0 carrier:0
      collisions:0 txqueuelen:0
      RX bytes:512 (512.0 b) TX bytes:512 (512.0 b)

# ping 192.168.0.1
PING 192.168.0.1 (192.168.0.1): 56 data bytes
64 bytes from 192.168.0.1: icmp_seq=0 ttl=255 time=4.1 ms
64 bytes from 192.168.0.1: icmp_seq=1 ttl=255 time=1.6 ms

--- 192.168.0.1 ping statistics ---
2 packets transmitted, 2 packets received, 0% packet loss
round-trip min/avg/max = 1.6/2.8/4.1 ms

# ping 192.168.2.1
PING 192.168.2.1 (192.168.2.1): 56 data bytes
64 bytes from 192.168.2.1: icmp_seq=0 ttl=32 time=3.0 ms
64 bytes from 192.168.2.1: icmp_seq=1 ttl=32 time=1.9 ms
64 bytes from 192.168.2.1: icmp_seq=2 ttl=32 time=1.9 ms

--- 192.168.2.1 ping statistics ---
3 packets transmitted, 3 packets received, 0% packet loss
round-trip min/avg/max = 1.9/2.2/3.0 ms

#
ALT-Z for help |115200 8N1 | NOR | Minicom 1.83.1 | VT102 | Online 00:02

```