

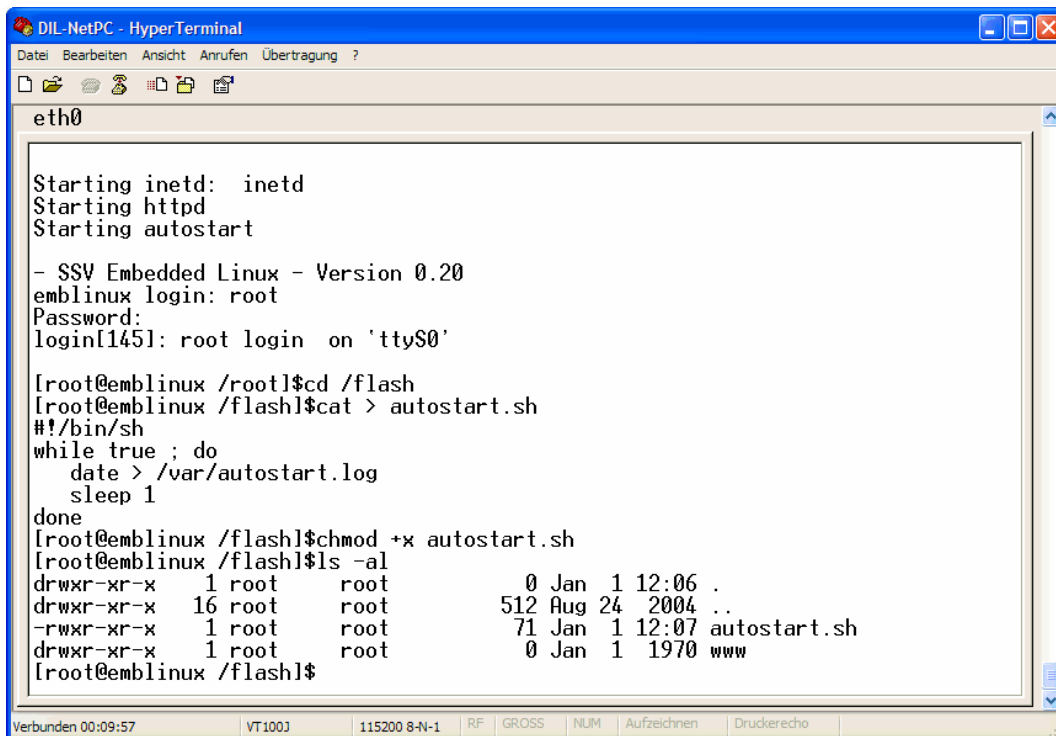
How to use the DNP/9200 Autostart Feature

The DIL/NetPC DNP/9200 default embedded Linux configuration comes with an Autostart feature. This feature allows you to start a program at boot time.

The DNP/9200 embedded Linux scans the Flash memory-based directory **/flash** direct before the end of the boot phase for a Linux shell script file with the name **autostart.sh**. If this file is present, the shell script will be executed.

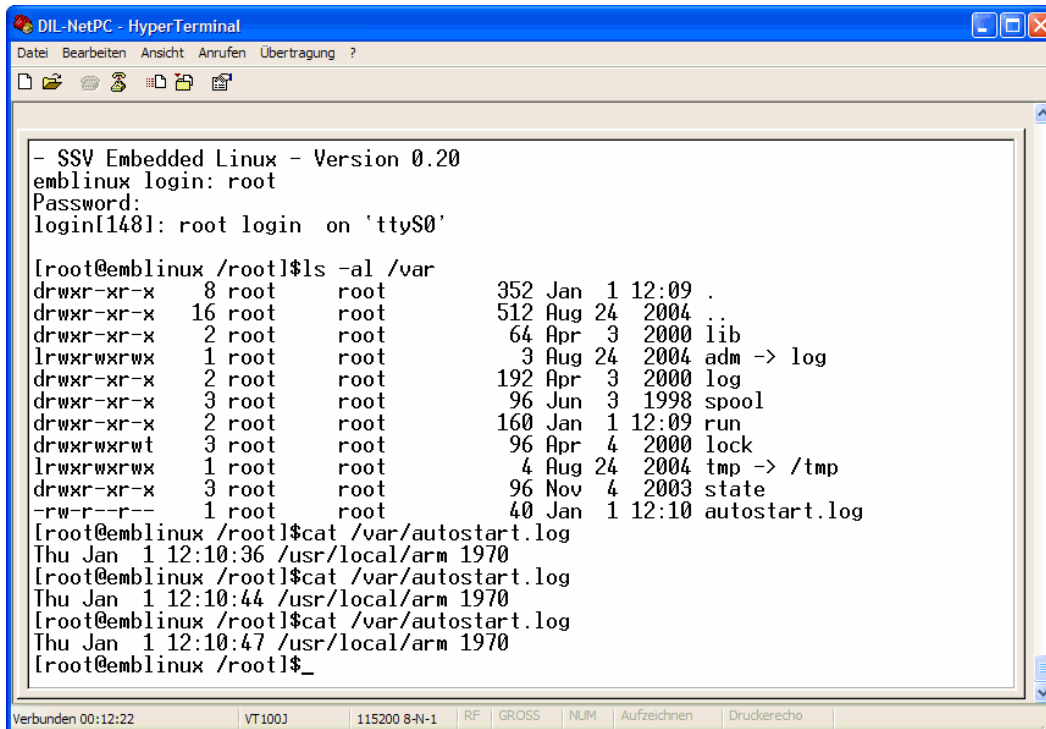
- **1. Step:** Create a Linux shell script file with the name **autostart.sh** on your development system and transfer this file to the DNP/9200 directory **/flash**. Use a simple text editor program for this job. It is also possible to create the file direct with the help of a Telnet or serial console session:

```
cd /flash
cat > autostart.sh
#!/bin/sh
while true ; do
    date > /var/autostart.log
    sleep 1
done
CTRL-D (CTRL-D stops the Linux cat command)
chmod +x autostart.sh
```



```
DIL-NetPC - HyperTerminal
Datei Bearbeiten Ansicht Anrufen Übertragung ?
eth0
Starting inetd: inetd
Starting httpd
Starting autostart
- SSV Embedded Linux - Version 0.20
emblinux login: root
Password:
login[1451]: root login on 'ttyS0'
[root@emblinux /root]#cd /flash
[root@emblinux /flash]#cat > autostart.sh
#!/bin/sh
while true ; do
    date > /var/autostart.log
    sleep 1
done
[root@emblinux /flash]#chmod +x autostart.sh
[root@emblinux /flash]#ls -al
drwxr-xr-x  1 root  root           0 Jan  1 12:06 .
drwxr-xr-x 16 root  root       512 Aug 24 2004 ..
-rwxr-xr-x  1 root  root           71 Jan  1 12:07 autostart.sh
drwxr-xr-x  1 root  root           0 Jan  1 1970 www
[root@emblinux /flash]#
```

- **2. Step:** Reboot the DNP/9200. Then watch the content of the file **/var/autostart.log**. The Linux shell script sample file from the 1. Step writes every second a new date string into this file.



```
- SSV Embedded Linux - Version 0.20
emblinux login: root
Password:
login[148]: root login on 'ttyS0'

[root@emblinux /root]#ls -al /var
drwxr-xr-x  8 root  root   352 Jan  1 12:09 .
drwxr-xr-x 16 root  root   512 Aug 24 2004 ..
drwxr-xr-x  2 root  root    64 Apr  3 2000 lib
lrwxrwxrwx  1 root  root    3 Aug 24 2004 adm -> log
drwxr-xr-x  2 root  root   192 Apr  3 2000 log
drwxr-xr-x  3 root  root    96 Jun  3 1998 spool
drwxr-xr-x  2 root  root   160 Jan  1 12:09 run
drwxrwxrwt  3 root  root    96 Apr  4 2000 lock
lrwxrwxrwx  1 root  root    4 Aug 24 2004 tmp -> /tmp
drwxr-xr-x  3 root  root    96 Nov  4 2003 state
-rw-r--r--  1 root  root    40 Jan  1 12:10 autostart.log
[root@emblinux /root]#cat /var/autostart.log
Thu Jan  1 12:10:36 /usr/local/arm 1970
[root@emblinux /root]#cat /var/autostart.log
Thu Jan  1 12:10:44 /usr/local/arm 1970
[root@emblinux /root]#cat /var/autostart.log
Thu Jan  1 12:10:47 /usr/local/arm 1970
[root@emblinux /root]#_
```

Please note: If you edit shell script files for Linux systems on a Windows-based PC, it is necessary to convert these files with a DOS2UNIX tool before you transfer them to the DIL/NetPC DNP/9200. Linux shell script files are simple text files. Windows is using the good old MS-DOS format for text files. MS-DOS and UNIX systems use different methods to identify end-of-line information in text files. MS-DOS – including Windows 9x, ME, NT, 2000 and XP – use a carriage return/linefeed pair (CR/LF), whilst UNIX only uses the LF character.

Please note: The steps of this document are tested with the DIL/NetPC DNP/9200 and Linux kernel version 2.4.

That's all.