

How to use the eSOM/9263 Autostart Feature

The System-on-Module eSOM/9263 Linux operating system comes with an *Autostart* feature. This feature allows you to start a program or a Linux build-in command at boot time.

The eSOM/9263 Linux O/S scans the internal 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.

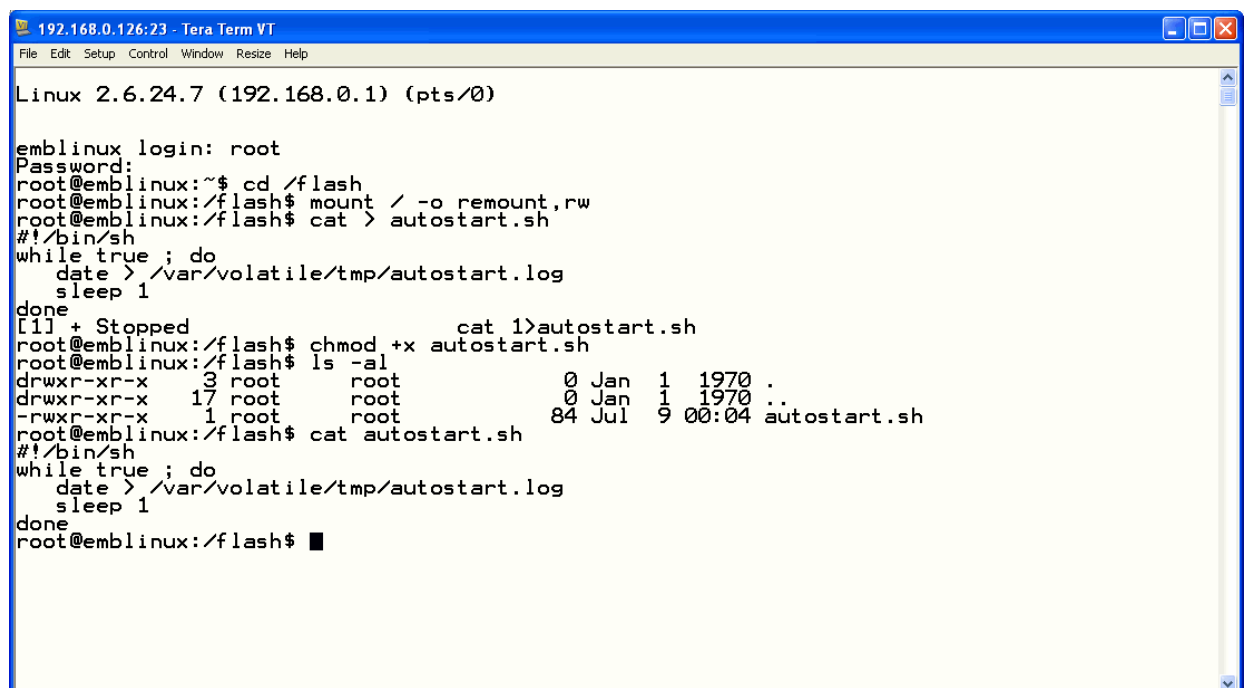
- **1. Step:** Create a Linux shell script file with the name *autostart.sh* on your development system and transfer this file to the eSOM/9263 directory */flash*. Use a simple text editor program for this job. It is also possible to create the file direct with the help of a Telnet or serial console session:

```
cd /flash
mount / -o remount,rw
cat > autostart.sh
#!/bin/sh
while true ; do
    date > /var/volatile/tmp/autostart.log
    sleep 1
done
```

CTRL-D (*CTRL-D saves the file and stops the cat command*)

- **2. Step:** Make sure that the file */flash/autostart.sh* is executable. Use the following command line to assign executable rights to *autostart.sh*:

```
chmod +x autostart.sh
```

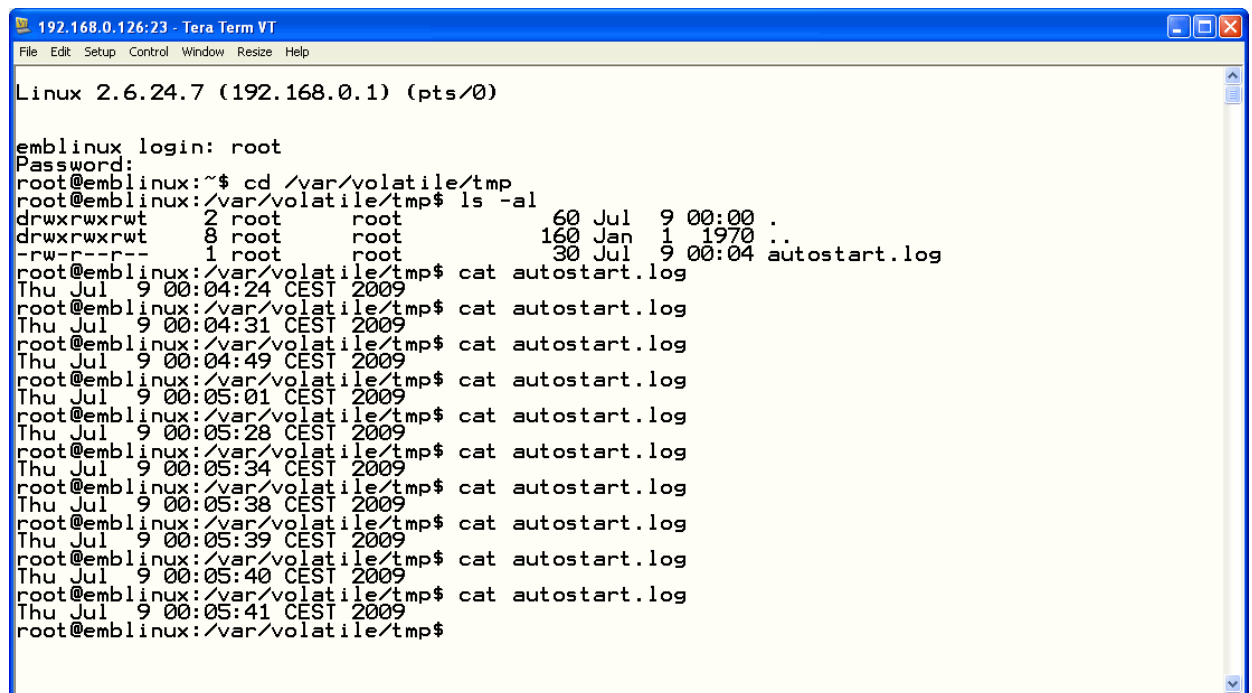


```
192.168.0.126:23 - Tera Term VT
File Edit Setup Control Window Resize Help
Linux 2.6.24.7 (192.168.0.1) (pts/0)
emblinux login: root
Password:
root@emblinux:~$ cd /flash
root@emblinux:/flash$ mount / -o remount,rw
root@emblinux:/flash$ cat > autostart.sh
#!/bin/sh
while true ; do
    date > /var/volatile/tmp/autostart.log
    sleep 1
done
[1] + Stopped                  cat l>autostart.sh
root@emblinux:/flash$ chmod +x autostart.sh
root@emblinux:/flash$ ls -al
drwxr-xr-x   3 root    root          0 Jan  1  1970 .
drwxr-xr-x  17 root    root          0 Jan  1  1970 ..
-rwxr-xr-x   1 root    root          84 Jul  9 00:04 autostart.sh
root@emblinux:/flash$ cat autostart.sh
#!/bin/sh
while true ; do
    date > /var/volatile/tmp/autostart.log
    sleep 1
done
root@emblinux:/flash$ █
```

- **3. Step:** Re-mount the System-on-Module eSOM/9263 flash file system for read-only mode:

```
mount / -o remount,ro
```

- **4. Step:** Reboot the System-on-Module eSOM/9263 Linux O/S. Then watch the content of the file `/var/volatile/tmp/autostart.log`. The Linux shell script sample file `autostart.sh` writes every second a new date string into `autostart.log`.



```
192.168.0.126:23 - Tera Term VT
File Edit Setup Control Window Resize Help

Linux 2.6.24.7 (192.168.0.1) (pts/0)

emblinux login: root
Password:
root@emblinux:~$ cd /var/volatile/tmp
root@emblinux:/var/volatile/tmp$ ls -al
drwxrwxrwt  2 root   root   60 Jul  9 00:00 .
drwxrwxrwt  8 root   root  160 Jan  1 1970 ..
-rw-r--r--  1 root   root   30 Jul  9 00:04 autostart.log
root@emblinux:/var/volatile/tmp$ cat autostart.log
Thu Jul  9 00:04:24 CEST 2009
root@emblinux:/var/volatile/tmp$ cat autostart.log
Thu Jul  9 00:04:31 CEST 2009
root@emblinux:/var/volatile/tmp$ cat autostart.log
Thu Jul  9 00:04:49 CEST 2009
root@emblinux:/var/volatile/tmp$ cat autostart.log
Thu Jul  9 00:05:01 CEST 2009
root@emblinux:/var/volatile/tmp$ cat autostart.log
Thu Jul  9 00:05:28 CEST 2009
root@emblinux:/var/volatile/tmp$ cat autostart.log
Thu Jul  9 00:05:34 CEST 2009
root@emblinux:/var/volatile/tmp$ cat autostart.log
Thu Jul  9 00:05:38 CEST 2009
root@emblinux:/var/volatile/tmp$ cat autostart.log
Thu Jul  9 00:05:39 CEST 2009
root@emblinux:/var/volatile/tmp$ cat autostart.log
Thu Jul  9 00:05:40 CEST 2009
root@emblinux:/var/volatile/tmp$ cat autostart.log
Thu Jul  9 00:05:41 CEST 2009
root@emblinux:/var/volatile/tmp$
```

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 eSOM/9263. 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, Windows Vista and Windows 7 – use a carriage return/linefeed pair (CR/LF), whilst UNIX only uses the LF character.

That's all.