

How to send a SMS with the Siemens MC45 GSM Modem

SMS (Short Message Service) is a way to transfer short text messages over a GSM-based mobile phone network. Messages are sent via a store-and-forward mechanism to a Short Message Service Centre (SMSC), which will attempt to send the message to the recipient and possibly retry if the user is not reachable at a given moment.

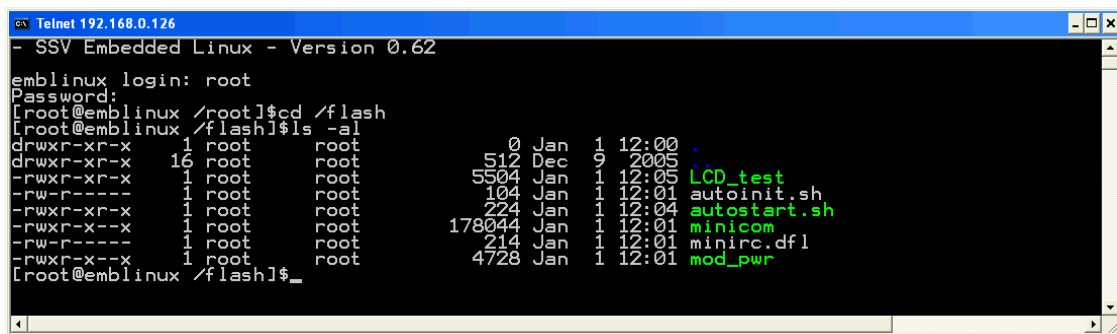
The DIL/NetPC DNP/9200 and the evaluation board DNP/EVA9 support SMS, if the Sony Ericsson or Siemens MC45 GSM modem is installed. It is also necessary to insert a SIM card with a valid GSM phone network provider contract or a prepaid account to the DNP/EVA9 SIM card holder.

- **1. Step:** Copy all files from the directory */gsm* of the DNP/9200 starter kit CD-ROM (version 1.2 or later) to the DNP/9200 directory */flash*. Please use the following TFTP commands for this job:

```
tftp -g -l autoinit.sh 192.168.0.1
tftp -g -l minicom 192.168.0.1
tftp -g -l minirc.dfl 192.168.0.1
tftp -g -l mod_pwr 192.168.0.1
```

- **2. Step:** The two files *minicom* and *mod_pwr* needs executable rights. Please use the following Linux shell command lines and change the rights:

```
chmod +x minicom
chmod +x mod_pwr
```



```
Telnet 192.168.0.126
- SSV Embedded Linux - Version 0.62
emblinux login: root
Password:
[root@emblinux /root]$cd /flash
[root@emblinux /flash]$ls -al
drwxr-xr-x  1 root    root      512 Dec  9 12:00 .
drwxr-xr-x 16 root    root     5504 Jan 12 00:05 LCD_test
-rwxr-xr-x  1 root    root      104 Jan 12 00:01 autoinit.sh
-rwxr-xr-x  1 root    root      224 Jan 12 00:04 autostart.sh
-rwxr-xr-x  1 root    root    178044 Jan 12 00:01 minicom
-rw-r-----  1 root    root      214 Jan 12 00:01 minirc.dfl
-rwxr-xr-x  1 root    root     4728 Jan 12 00:01 mod_pwr
[root@emblinux /flash]$_
```

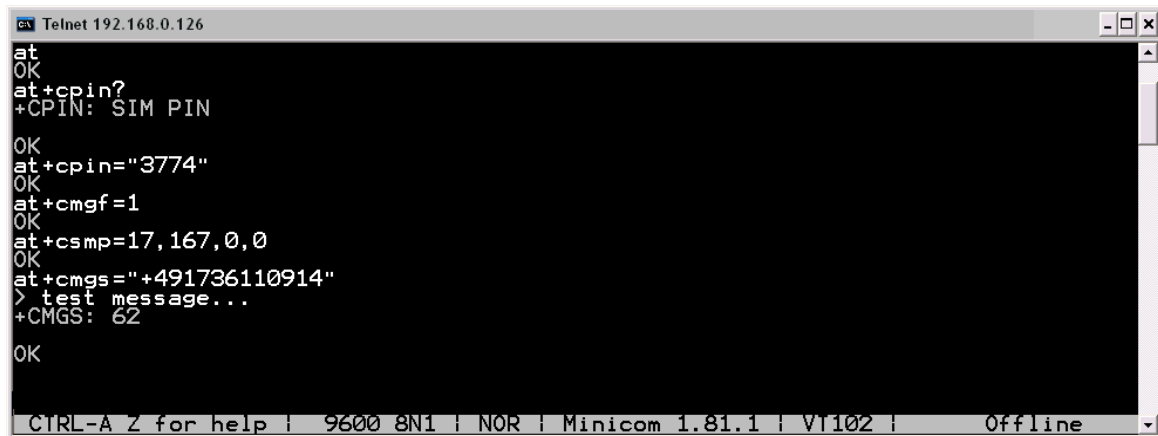
- **3. Step:** Reboot your DIL/NetPC DNP/9200. The DNP/9200 executes *mod_pwr* over the shell script *autoinit.sh* within the Linux booting phase and turns the Siemens MC45 GSM modem power on. Then run a Telnet session and enter the following two commands:

```
cd /flash
./minicom
```

With the help of these two commands we run the *minicom* program, a simple terminal emulation for the DNP/9200. This program allows us to use the Siemens MC45 GSM modem with AT commands.

- **4. Step:** Within the *minicom* terminal emulation window, please execute the following AT commands (use the *enter* key after each AT command line – the Siemens MC45 GSM modem responds with *OK*):

```
at
at+cpin?
at+cpin="... pin number ..."
at+cmgf=1
at+csmp=17,167,0,0
```



```
Telnet 192.168.0.126
at
OK
at+cpin?
+CPIN: SIM PIN
OK
at+cpin="3774"
OK
at+cmgf=1
OK
at+csmp=17,167,0,0
OK
at+cmgs="+491736110914"
> test message...
+CMGS: 6Z
OK
CTRL-A Z for help | 9600 8N1 | NOR | Minicom 1.81.1 | V1102 | Offline
```

The first AT commands initializes the Siemens MC45 GSM modem with the PIN number (this number depends on your SIM card) and some SMS mode parameters. Then enter the *at+cmgs* command for sending the SMS:

```
at+cmgs="... recipient phone number ..."
```

The GSM modem responds to the *at+cmgs* command with a single ‘>’ character. Now enter your text message and finish the text with *CTRL-Z*. After that, the GSM modem sends the SMS to the recipient.

For more details about the GSM modem AT commands, please see the *Siemens Mobile GSM Modem: MC45 AT Command Set Manual*. This manual is a part of your DNP/9200 starter kit CD-ROM

Please note: The AT command sample shown within the last picture use the PIN number “3774” and the recipient phone number “+491736110914”. Please replace these placeholders with your numbers.

For leaving the *minicom* terminal emulation program, please enter *CTRL-A* followed by the single character *X*.

That is all.