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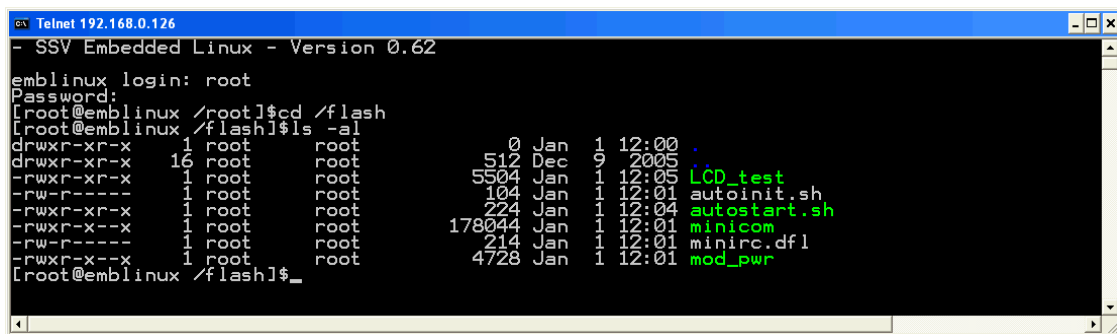
The DIL/NetPC DNP/9200 and the evaluation board DNP/EVA9 support SMS, if the Sony Ericsson or Siemens MC45 GSM modem is installed. It is also necessary to insert a SIM card with a valid GSM phone network provider contract or a prepaid account to the DNP/EVA9 SIM card holder.

- **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:
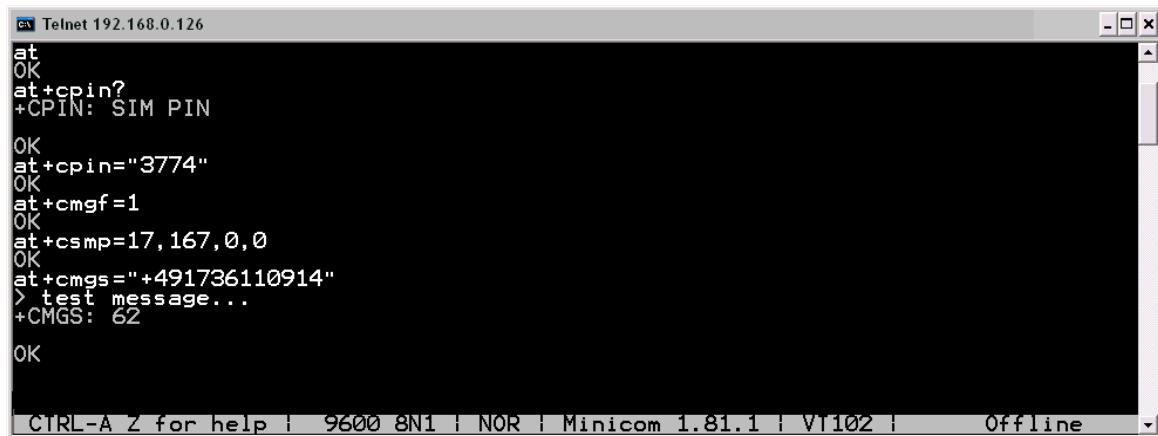
```
chmod +x minicom
chmod +x mod_pwr
```


- **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: 62

OK

 CTRL-A Z for help |  9600 8N1 | NOR | Minicom 1.81.1 | VT102 |      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.