How to exchange the dBUG ROM Monitor Program

The DIL/NetPC DNP/528x on-board flash memory of your IGW/800 or IGW/900 Linux Device Server offers the *Motorola dBUG ROM Monitor* program. There are two ways to exchange the Motorola dBUG ROM Monitor program in the DIL/NetPC DNP/528x on-board flash memory: 1. With the help of a BDM hardware interface. 2. With in-application programming directly from the Linux user space. This document describes the in-application programming exchange of the dBUG ROM Monitor.

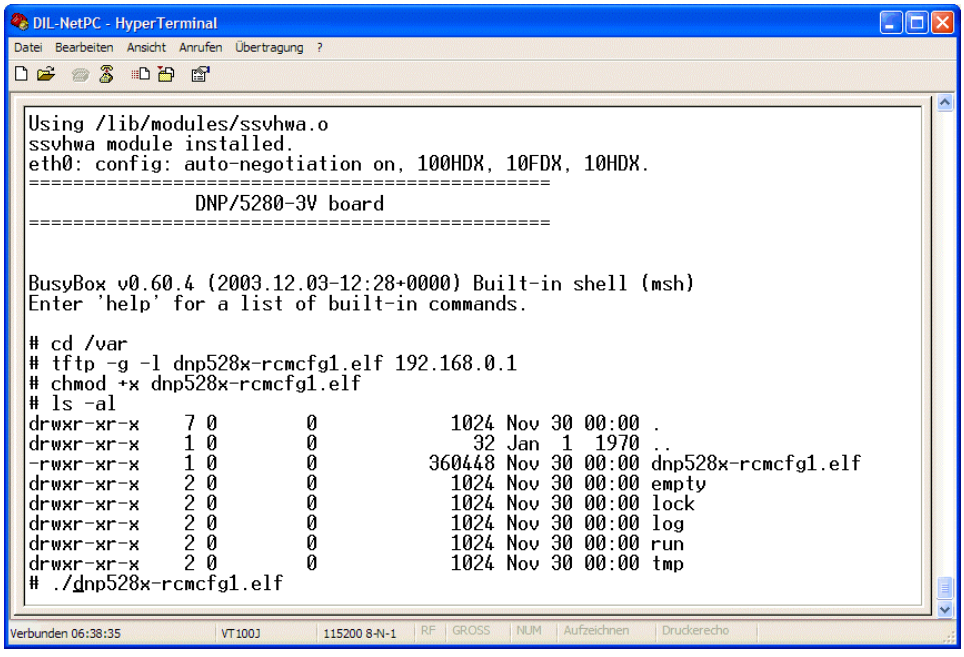
- **1. Step**: Setup a serial link (**RS232 Serial Link**) between the IGW/800 or IGW/900 COM1 serial port and a serial port of your PC system. Use a null-modem cable and the RS232 interface cable for the physical connection between the COM1 port of the IGW/800 or IGW/900 and the PC COM port. For more details about this connection please use the *IGW/800* or *IGW/900 Starter Kit User Manual*.

- **2. Step**: Run your terminal emulation program. Microsoft Windows-based PC systems offers *HyperTerminal* for this task. Linux-based systems come with *Minicom*.

- **3. Step**: Setup a Ethernet link between the IGW/800 or IGW/900 and your PC. Run a TFTP server program on your PC. Make sure, that the new dBUG ROM Monitor Binary Image File is available at the TFTP server default directory.

- **4. Step**: Power-up the IGW/800 or IGW/900. Direct after the Linux boot process, please execute the following Linux commands:

```
cd /var
tftp -g -l dnp528x-rcmcfg1.elf 192.168.0.1
chmod +x dnp528x-rcmcfg1.elf
```



With the first command line, we change the current working directory to */var* into the DIL/NetPC DNP/528x RAM disk.

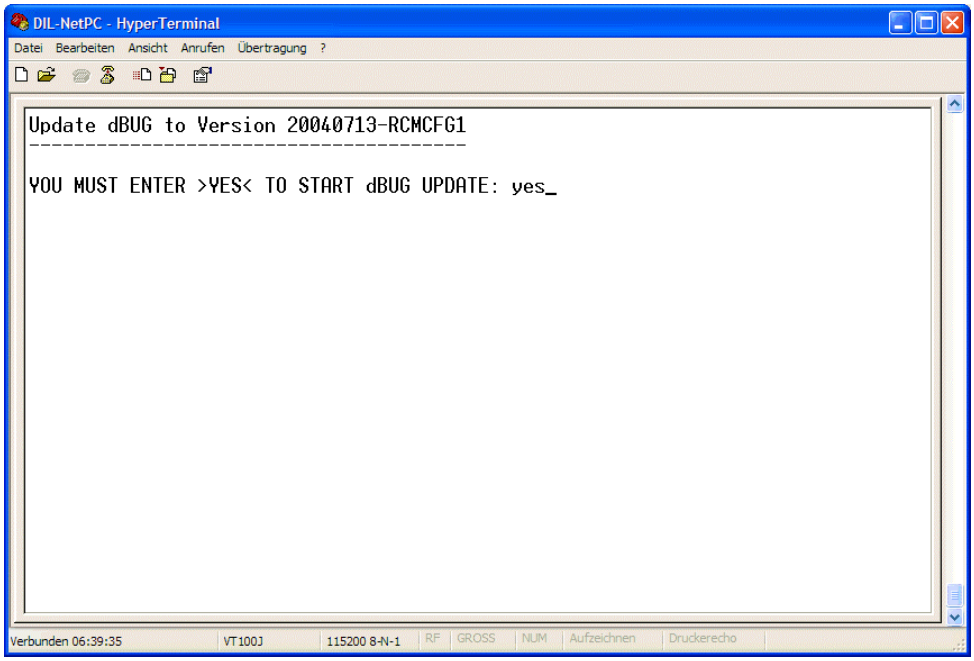
The second command line describes the TFTP file transfer of the dBUG ROM Monitor Binary Image File *dnp528x-rcmcfg1.elf* from the PC to the DIL/NetPC DNP/528x RAM disk directory */var*. "192.168.0.1" is the IP address of the PC with the TFTP server. Please change this address if necessary.

The third command line give executable rights to the file *dnp528x-rcmcfg1.elf*. This rights are necessary for running *dnp528x-rcmcfg1.elf*.

- **5. Step**: For in-application programming of the new dBUG ROM Monitor please run the file *dnp528x-rcmcfg1.elf*:

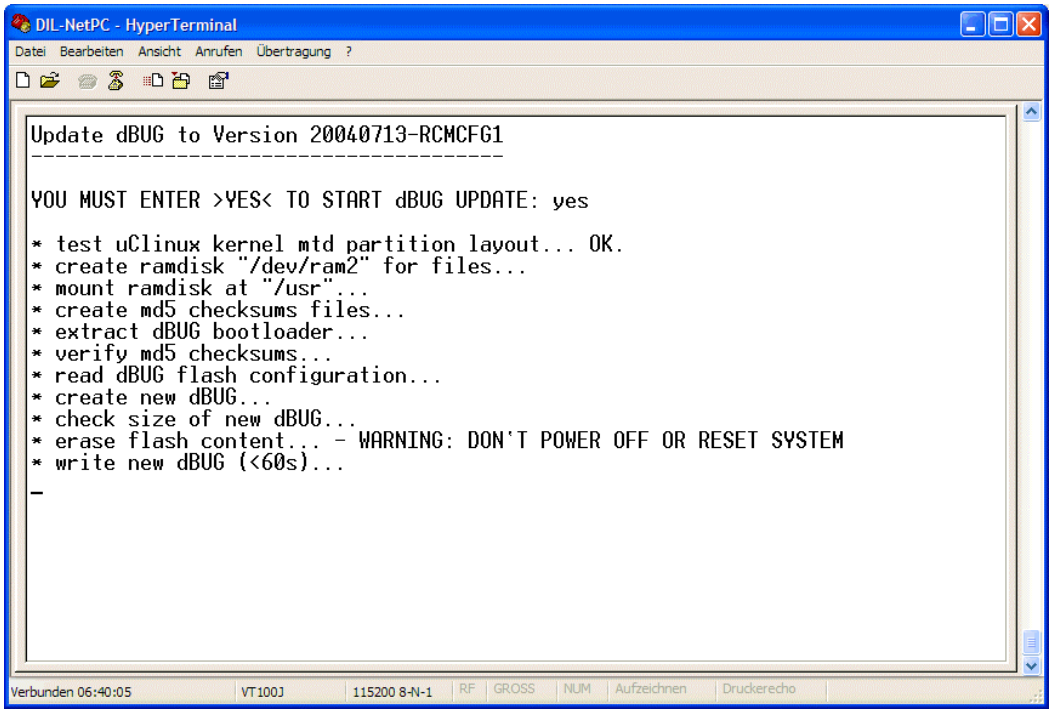
```
./dnp528x-rcmcfg1.elf
```

- **6. Step**: Follow the on-screen message of *dnp528x-rcmcfg1.elf* . Type *yes* and hit the Return key. This input starts the in-application process.

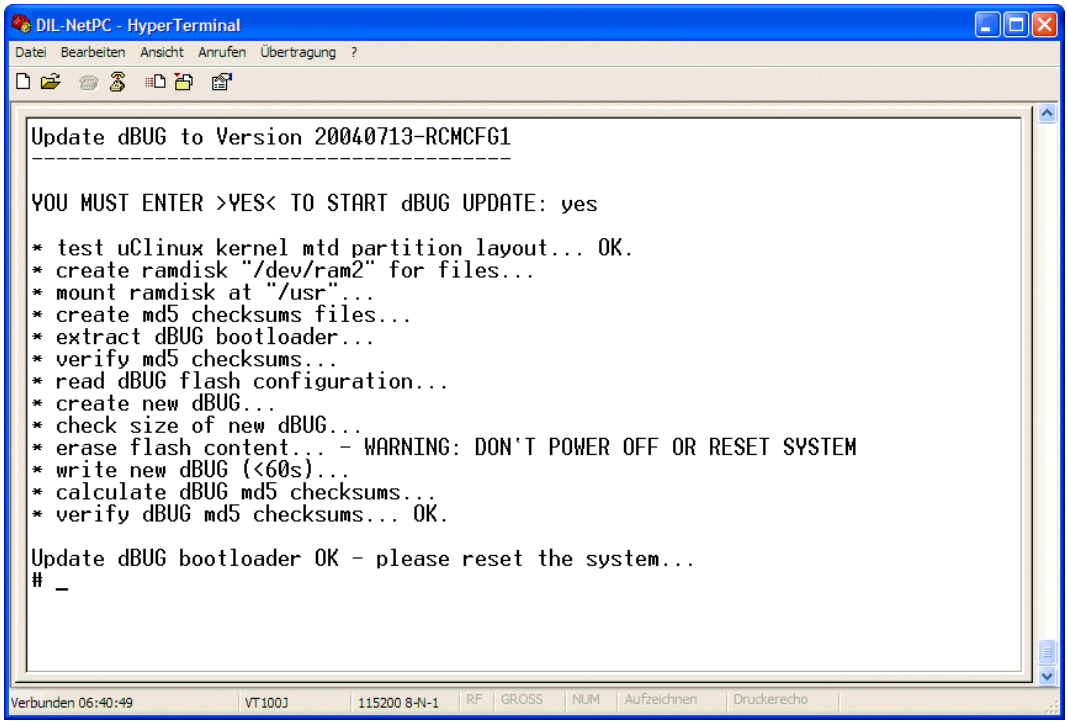


- **7. Step**: Please wait until the dBUG ROM Monitor in-application programming process finish's without errors.

The in-application programming process needs some time. **Please make sure, that no power interruption or hardware reset occurs during the in-application programming process**. In case of a power interruption or hardware reset the DIL/NetPC DNP/528x on-board flash memory content of your IGW/800 or IGW/900 Linux Device Server can be damaged. It is possible to renew the flash content with help of a BDM hardware interface.



- **8. Step**: After the dBUG ROM Monitor in-application programming process has finished, it is necessary to reset your IGW/800 or IGW/900 Linux Device Server to run the new flash software.



That is all.