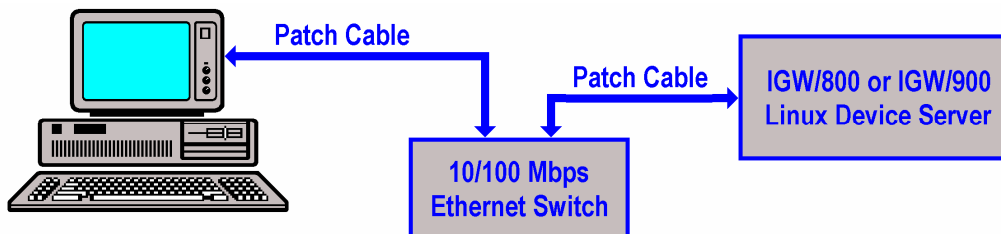


## How to download a new Linux O/S Image to the IGW/800 or IGW/900 Flash

The DIL/NetPC DNP/528x of your IGW/800 or IGW/900 Linux Device Server comes with a simple ROM monitor program called *dBUG*. This program allows you to download a new Linux O/S image file over an Ethernet-based TCP/IP connection from a host to the DNP/528x flash memory. The download needs a TFTP server program for the host. The ROM monitor *dBUG* provides a command line user interface (CLI). This interface is normally available on serial port COM1 when the RCM jumper is closed.

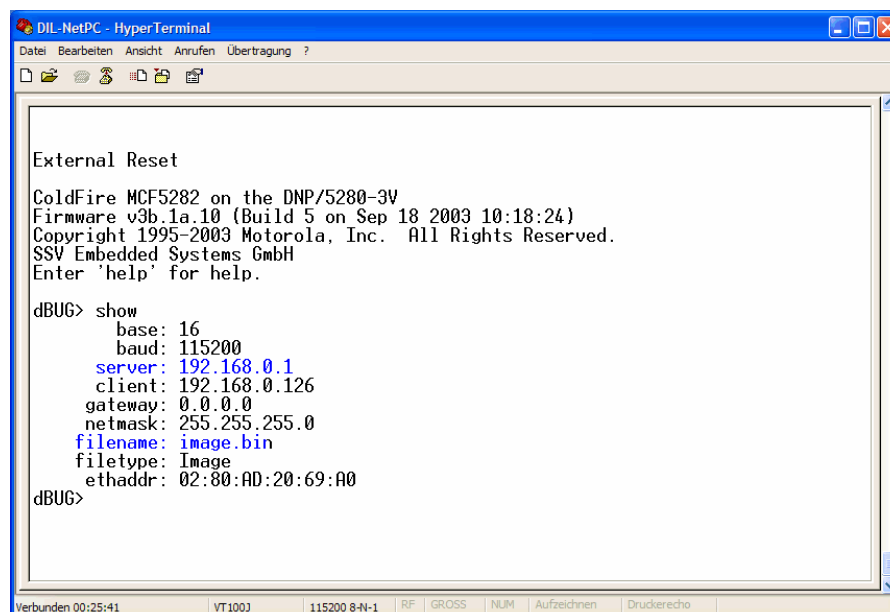
- **1. Step:** Setup an Ethernet connection with a 10/100 Mbps switch and Ethernet patch cables between the IGW/800 or IGW/900 Linux Device Server and your PC. **The *dBUG* TFTP download don't work proper with an Ethernet cross-over LAN cable and the Ethernet 10/100 Mbps Auto-Negotiation mode.**



- **2. Step:** Power-up your IGW/800 or IGW/900 with the RCM cable bridge closed. The DIL/NetPC DNP/528x of your IGW/800 or IGW/900 Linux Device Server runs *dBUG* directly after the reset. Enter the *dBUG* command

**show**

and check the setup for the TFTP server IP address (default: **192.168.0.1**) and the name of the Linux O/S image file (default: **image.bin**). Change these parameters if necessary.

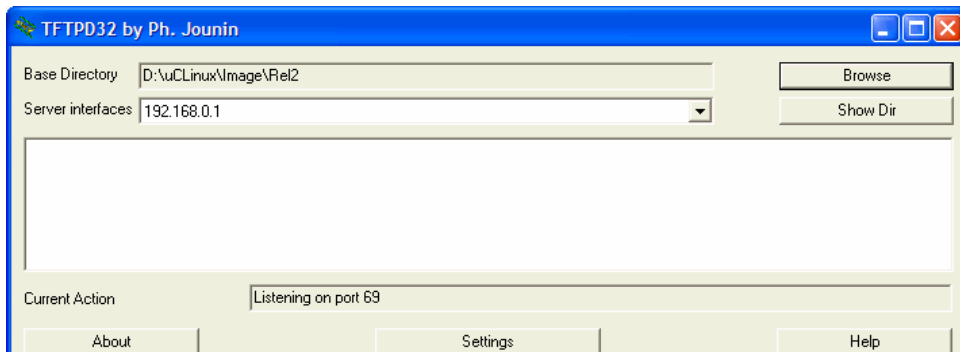


```

DIL-NetPC - HyperTerminal
Datei Bearbeiten Ansicht Anrufen Übertragung ?
External Reset
ColdFire MCF5282 on the DNP/5280-3W
Firmware v3b.1a.10 (Build 5 on Sep 18 2003 10:18:24)
Copyright 1995-2003 Motorola, Inc. All Rights Reserved.
SSV Embedded Systems GmbH
Enter 'help' for help.

dBUG> show
  base: 16
  baud: 115200
  server: 192.168.0.1
  client: 192.168.0.126
  gateway: 0.0.0.0
  netmask: 255.255.255.0
  filename: image.bin
  filetype: Image
  ethaddr: 02:80:AD:20:69:A0
dBUG>
  
```

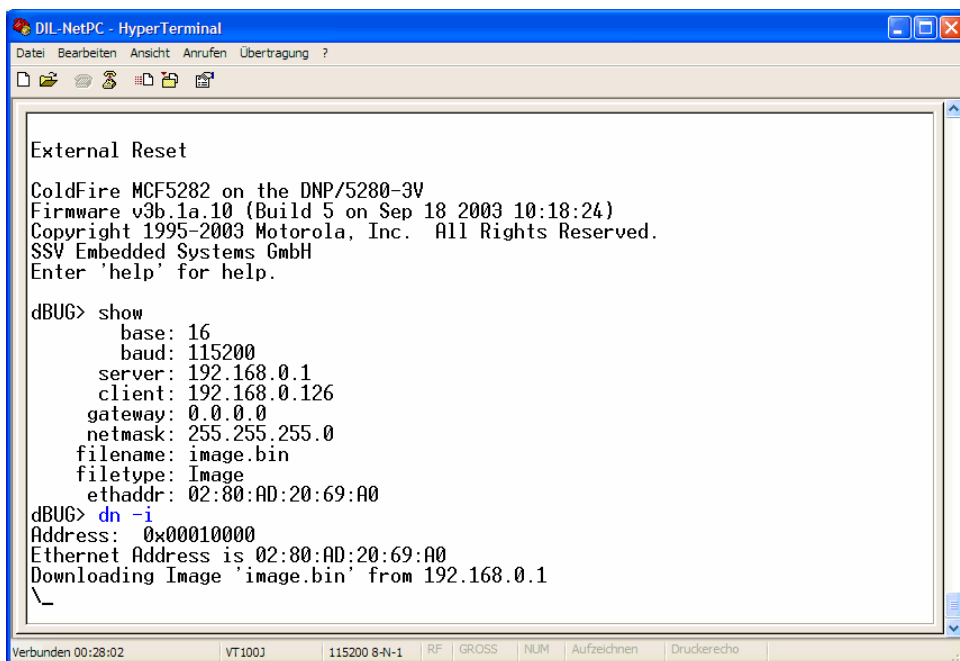
- **3. Step:** Run a TFTP server on your host (e.g. your Windows-based PC). Make sure that the TFTP server has access to the Linux O/S image file.



- **4. Step:** Now you can start to download the Linux O/S image file. Enter the *dBUG* command

**dn -i**

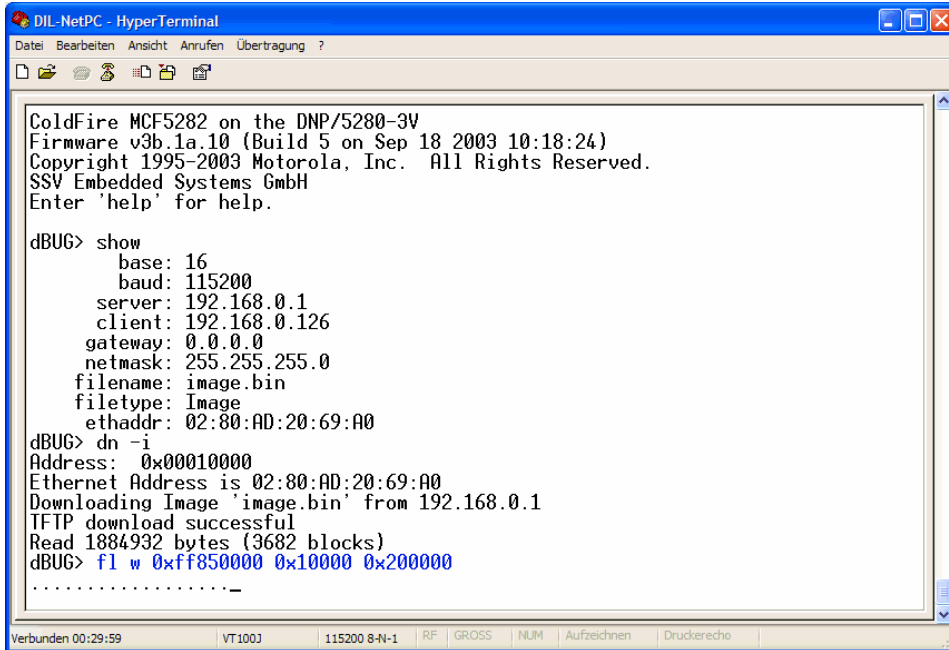
to start the download. Wait until the download finish's. The download needs some time. Please wait.



- **5. Step:** After the TFTP-based download the new Linux O/S image file is located within the DIL/NetPC DNP/528x RAM. Enter the *dBUG* command

**f1 w 0xff850000 0x10000 0x200000**

to move the Linux O/S image file from RAM to flash. This operation needs some time. Please wait.



```
DIL-NetPC - HyperTerminal
Datei Bearbeiten Ansicht Anrufen Übertragung ?
ColdFire MCF5282 on the DNP/5280-3V
Firmware v3b.1a.10 (Build 5 on Sep 18 2003 10:18:24)
Copyright 1995-2003 Motorola, Inc. All Rights Reserved.
SSV Embedded Systems GmbH
Enter 'help' for help.

dBUG> show
    base: 16
    baud: 115200
    server: 192.168.0.1
    client: 192.168.0.126
    gateway: 0.0.0.0
    netmask: 255.255.255.0
    filename: image.bin
    filetype: Image
    ethaddr: 02:80:AD:20:69:A0
dBUG> dn -i
Address: 0x00010000
Ethernet Address is 02:80:AD:20:69:A0
Downloading Image 'image.bin' from 192.168.0.1
TFTP download successful
Read 1884932 bytes (3682 blocks)
dBUG> fl w 0xff850000 0x10000 0x200000
.....-
```

Remove the power supply from your IGW/800 or IGW/900 after the execution of the *dBUG fl* command. Then remove the RCM cable bridge and reboot your IGW/800 or IGW/900 Linux Device Server to run the new Linux O/S image.

**Please note:** *dBUG* cannot communicate with TFTP servers on different subnets because *dBUG* doesn't support routing. This means, that the IGW/800 or IGW/900 Linux Device Server and the TFTP server must be on the same subnet.

That is all.