

## How to use boards with etrax mcm

This boards are accessible at GSI under etrax201-etrax248.

## How to login

Only via telnet: telnet etrax2xx, where xx=01-48

There is two usefull users:

1. root with with 4-letters password,
2. hadaq without password and home directory -> /home/hadaq

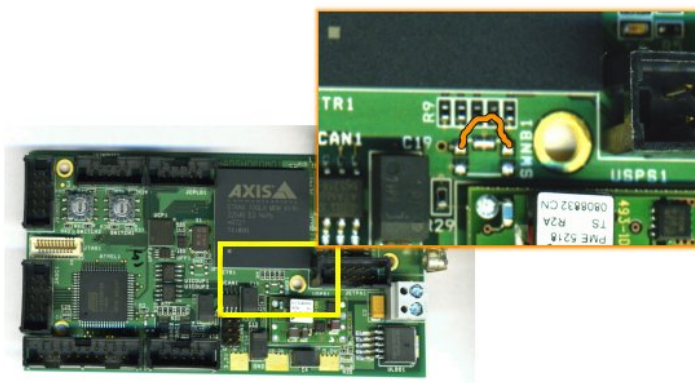
## What's happen after reboot

1. The image of linux is unpacking,
2. linux system is starting,
3. network configuration. It is static and embedded in the image. This is the reason why so many images were created(see chapter: new version of net booting),
4. the script `/home/hadaq/rc` is running.
5. if you are logged in as **hadaq**, all in the file `/home/hadaq/.profile` will be run after login

## Boot from net

If you have a new board without the system on it or you want to change the system, you should do the following:

1. go to `hadeb05:/home/hadaq/soft/devboard-R2_01` and change the user to root,
2. set the board into the **'NetBoot'** state,
  - for HadControl: **while powering up the board** short circuit the upper two pins on SWNB1 (next to the MCM)



3. to set environment variables needed to flash type:

```
$> . ./init_env
```

4. to flash type (where xx=01-48):

```
$> ./flashit -d eth1 -i ./etrax2xx/fimage
```

- successful example output:

```
$> ./flashit -d eth1 -i ./de-etrax047/fimage
```

```

Using internal boot loader: INTERNAL_NW - Network boot (default).
Starting boot...
We're doing a flash write, this may take up to a few minutes...

Device ID = 0x0000cc64
This bootloader was built by hadaq on Mon Aug 28 12:52:34 CEST 2006.
Checksum of bootloader is 0x000a0adc
Waiting for load info.
Checksum of file is 0x00001d83
Got load info.

SET_REGISTER
0xb0000000
0x00009ff8
...
...
SET_REGISTER
0xb0000038
0x0000ff00
PACKET_INFO
0xc0004000
0x002e0018
Checksum of file is 0x1faca2ac
FLASH
0xc0014000
0x00010000
0x002d0000
Found 1 x CFI at 0x80000000
No single x16 at 0x84000000
No interleaved x16 at 0x84000000
0x80010000: Erasing 0x00010000 bytes
0x80010000: Writing 0x00010000 bytes
0x80020000: Erasing 0x00010000 bytes
0x80020000: Writing 0x00010000 bytes
...
...
0x802d0000: No need to write
0x80000000: Verifying...OK
JUMP
0x00000000
END
Exiting with code 0

```

5. set the board into the **'FlashBoot'** state,
  - i.e. for trb v1: change SW1 to 7
    - restart of the board is NOT needed
  - for HadControl: just power the board, nothing to do...
6. if you can login and see the content of directory /home/hadaq, booting proccess finished correctly

## new version of net booting

Now we have many images with the same system which differs only:

1. net configuration(IP, netmask,hostname)
2. NFS configuration(/home/hadaq is taken from hadeb05 or lxhadesdaq).

If the new system development kit is released(a few weeks), we want to change the system for: only one image, where all above settings will be delivered by DHCP server.

Then the procedure will be like this:

1. go to hadeb05:/home/hadaq/soft/devboard-mcm and change the user to root,
2. set the board into the 'NetBoot' state,
3. set the PATH variable by: ". init\_env"
4. type: boot -d eth1 -i ./fimage
5. set the board into the 'FlashBoot' state,
6. login to etrax001(our new board)
7. change MAC address
8. restart the board, now you can login on etrax0xx

-- [RadekTrebacz](#) - 14 Nov 2008

([PeterZumbruch](#) - 15 Feb 2012)

Dieses Topic: DaqSlowControl > TDCReadoutBoard > EtraxMcmControl

Topic-Revision: 15 Mar 2018, PeterZumbruch

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