

Setting up a Motorola CPV5350 cPCI CPU Board for Operation with the GALFA/SERENDIP5 Spectrometer

Loading the OS onto the onboard hard drive for the first time:

1. Turn on CPU
2. Press F2 to enter BIOS setup
3. Under Exit menu
 - a. Reset to default BIOS settings (F9)
 - b. Save changes
4. Under Advanced → PCI Configuration
 - a. Enable On-Card Ethernet 1
 - b. Enable ROM option for On-Card Ethernet 1
 - c. Disable On-Card Ethernet 2
5. Under Boot → Boot Device Priority
 - a. Disable all but Ethernet 1
6. Save changes and exit
7. Connect both CPU board and boot server to hub
8. Reboot the CPU board and allow it to boot from the boot server
9. Copy the OS to the hard drive: `makedisk -s6 -d /dev/hda`
10. Reboot CPU board; press F2 to re-enter BIOS setup
11. Under Boot → Boot Device Priority
 - a. Disable all but hard drive
12. Reboot the CPU board

NOTE: At least one board has Ethernet ports 1 and 2 wired back to front.

Configuring CPU board for network interface:

1. Set IP addresses:

```
ifconfig eth0 xxx.xxx.xxx.xxx netmask xxx.xxx.xxx.xxx
broadcast xxx.xxx.xxx.xxx
```
2. Add default gateway: `route add default gw xxx.xxx.xxx.xxx`
3. Check settings: `netstat -nr`
4. Add DNS servers in `/etc/resolv.conf`:

```
nameserver xxx.xxx.xxx.xxx
```