Driver Installation Guide For MCS98XX on Linux

This installation guide describes the procedure to install MCS9805, MCS9815, MCS9820, MCS9835 and MCS9845 PCI Serial / Parallel ports on Linux platform.

Note: In this document MCS9835 is taken as an example. Please follow the same procedure to install MCS9805, MCS9815, MCS9820 and MCS9845.

To know the number of available serial ports:

Linux only supports 4 serial ports (ttyS0, ttyS1, ttyS2, ttyS3) under the default condition. Most likely, ttyS0 & ttyS1 are supported by mother board's built-in serial controllers and ttyS2 & ttyS3 are free for additional I/O card. If you want to add more serial ports use the following command.

For example you want to add ttyS4:

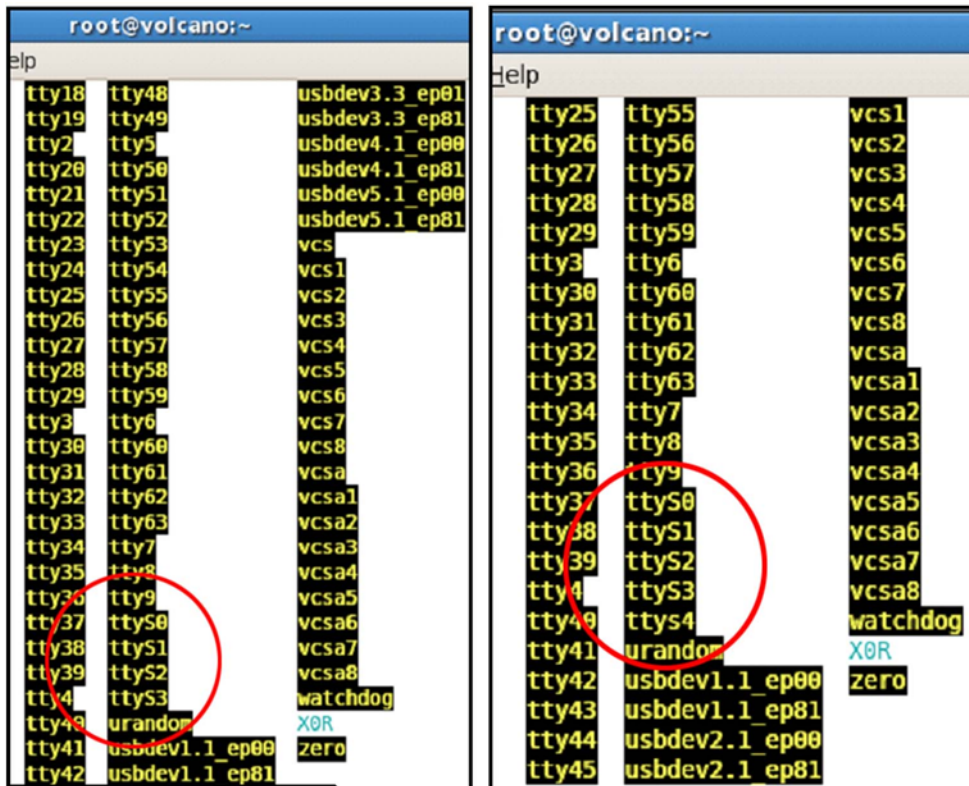**Mknod /dev/ttyS4 C 4 68   (and press ENTER)**
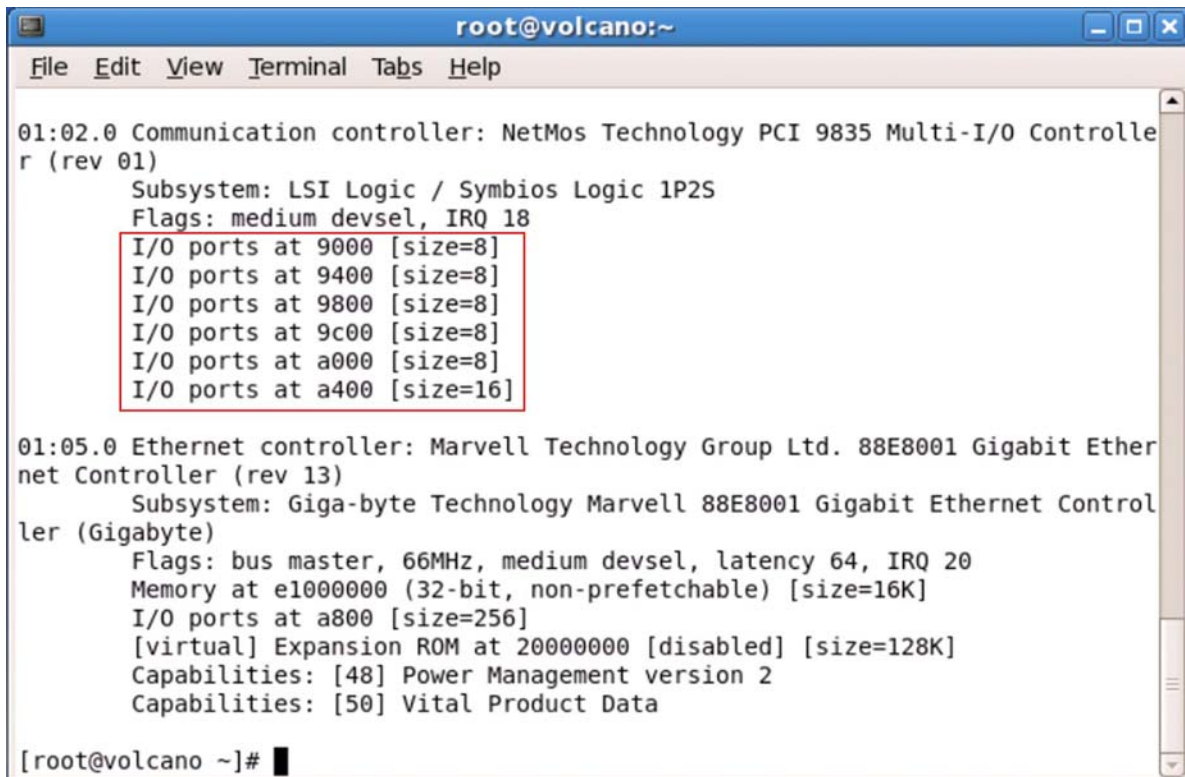

Fig 1

Default condition   **After adding a serial port**

Installing MCS98XX Serial Ports on Linux Platform:

Step 1:

Find the PCI card resource (I/O port address & IRQ) for the serial ports by using the below command.

 lspci –v   (and press ENTER)

<p align="center">Fig 2</p>

The response is similar to the above screen shot.

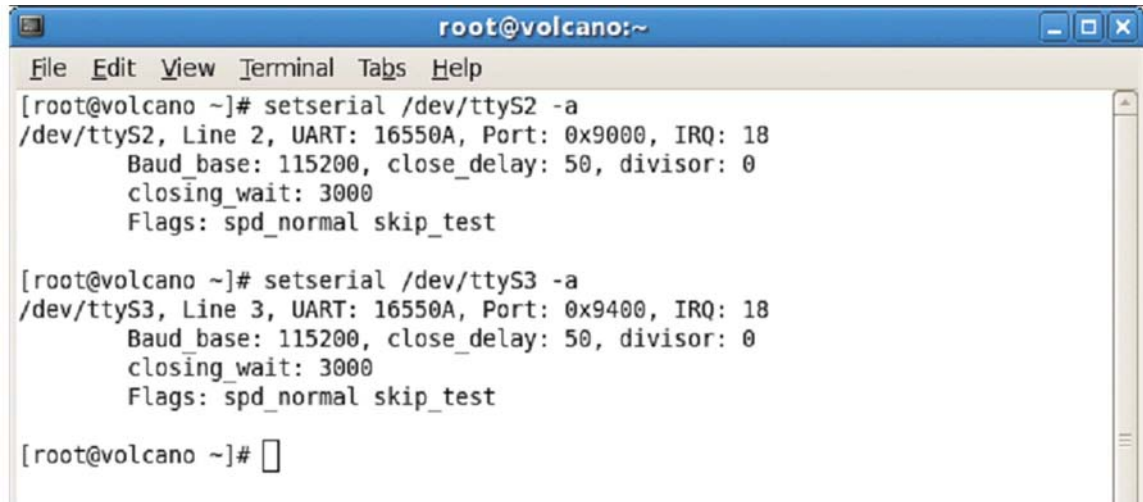**Step 2:**

Use the below commands to install Serial ports

 **Setserial /dev/ttyS2 port 9000 UART 16550A irq 18 Baud_base 115200
 Setserial /dev/ttyS3 port 9400 UART 16550A irq 18 Baud_base 115200**

Now the Serial ports of MCS9835 installed.

Step 3:

To check the setting of ttyS2 or ttyS3, type the following command and press Enter.

setserial /dev/ttyS2 –a   (and press ENTER)

Fig 3

Now the Serial ports ttyS2 & ttyS3 are ready to use.

<u>Installing MCS98XX Parallel Port on Linux Platform</u>:

To install the parallel port use the following command.

/sbin/modprobe parport_pc io=0x3f8,a400 irq=4,18   (and press ENTER)

The above command indicates onboard parallel port at 0x3f8 with IRQ 4 and MCS9835 parallel port at a400 with IRQ18. (Refer to fig 2)

Incase if you require using more than 2 parallel ports (for example MCS9815) make use of the following command:

/sbin/modprobe parport_pc io=0x3f8,8800,8c00,9c00 irq=4,18   (and press ENTER)

In the above command **9c00** is 16 bit I/O address and **8800 / 8c00** are 8 bit addresses. Refer to the screen shot below for clarity.

Fig 4

Caution:

Take care when you handle the MCS 98XX PCI cards. Like any electronic device,
they are sensitive to static electricity, use normal static precautions such as wearing an
Earth ground strap.