

Port Multiplier Support Under Linux

SiI 3124 or SiI3132 Addonics SATA Host Controller with SiI3726 Addonics Port Multiplier

Fedora Core 5

Check if your system detects the SATA host controller
benringor@ubuntu-server:/usr/src\$ **lspci**

1. Kernel Source

Vanilla-Source: source straight from kernel.org (unpatched)

<http://www.kernel.org/pub/linux/kernel/v2.6/>

Version: linux-2.6.17.4

2. Install the Kernel Source

Download and extract the kernel source.

```
[root@localhost ~]# cd /usr/src
```

```
[root@localhost src]# mkdir linux-2.6.17.4
```

```
[root@localhost src]# wget http://www.kernel.org/pub/linux/kernel/v2.6/linux-2.6.17.4.tar.bz2
```

```
[root@localhost src]# tar xjvf linux-2.6.17.4.tar.bz2
```

3. Download SATA code with Port Multiplier (PMP) support

<http://home-tj.org/wiki/index.php/Libata-tj-stable>

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<http://home-tj.org/wiki/index.php/Libata-tj-stable>

or

```
[root@localhost src]# wget http://home-tj.org/files/libata-tj-stable/libata-tj-2.6.17.4-20060710.tar.bz2
```

4. Extract & Patch

Once you have downloaded the patch, extract it and apply.

```
[root@localhost src]# ls
```

```
[root@localhost src]# tar xjvf libata-tj-2.6.17.4-20060710.tar.bz2
```

```
[root@localhost src]# cd linux-2.6.17.4
```

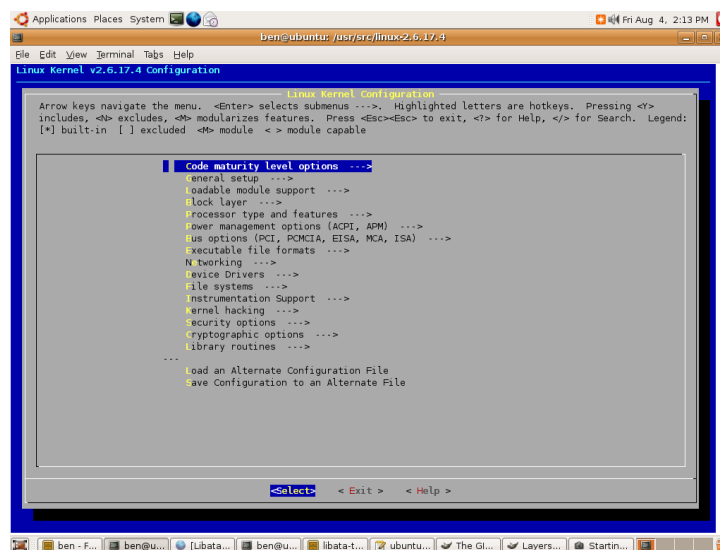
```
[root@localhost linux-2.6.17.4]# patch -p1 < ../libata-tj-2.6.17.4-20060710/combined.patch
```

5. Prepare for configuring and compiling kernel

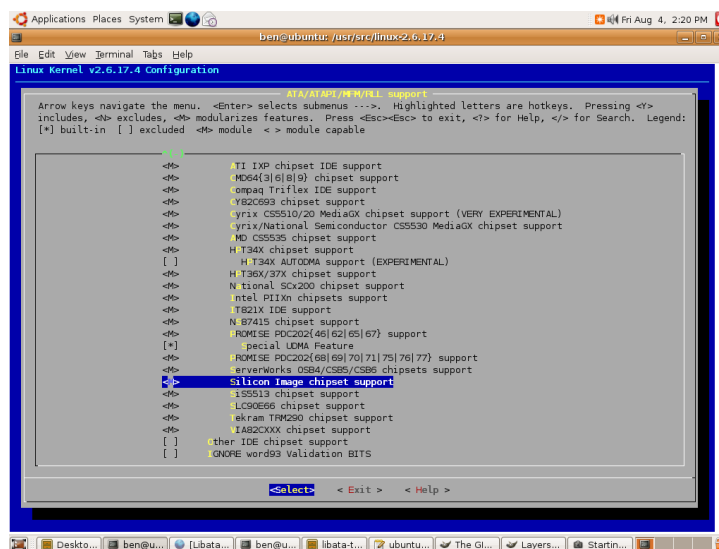
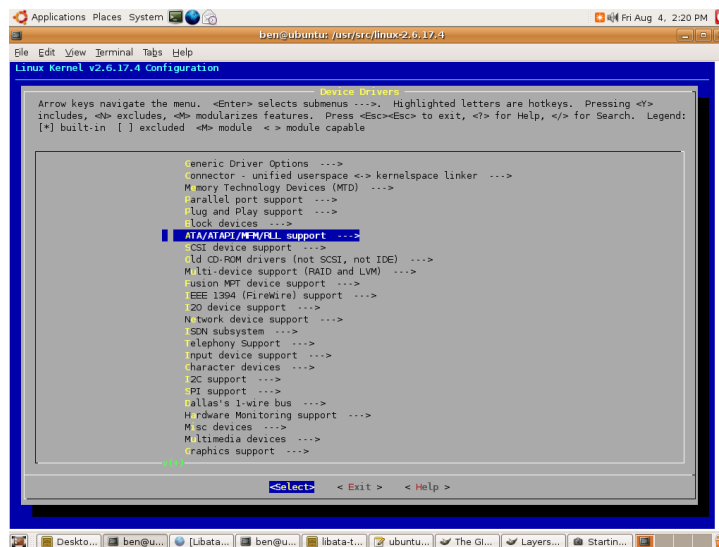
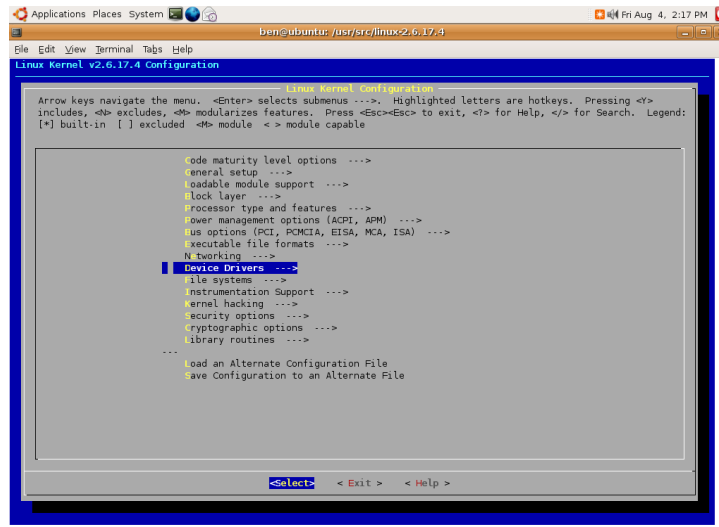
Select **Applications** > **Add/Remove Software** > **Package Manager**.

In **Package Manager**, select **Development**, click **Development Tools & Development Libraries** > **Apply** > **Continue**.

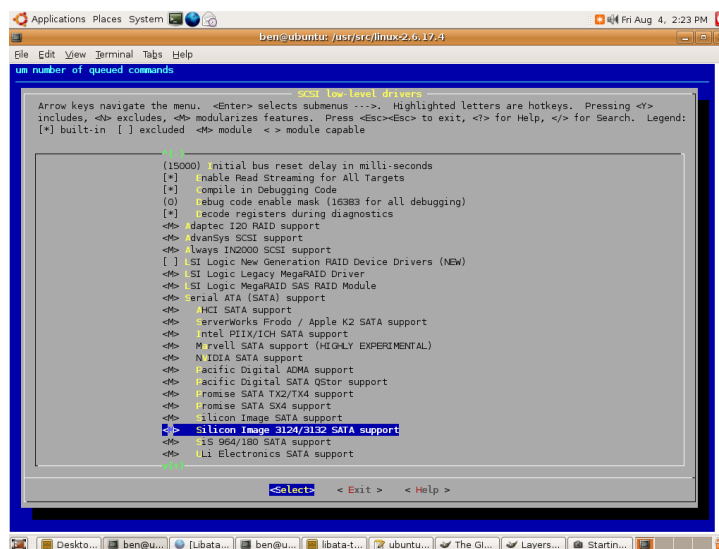
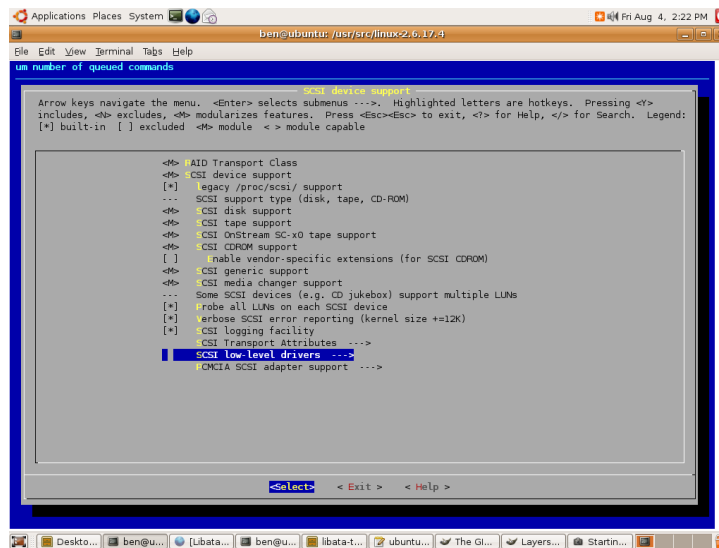
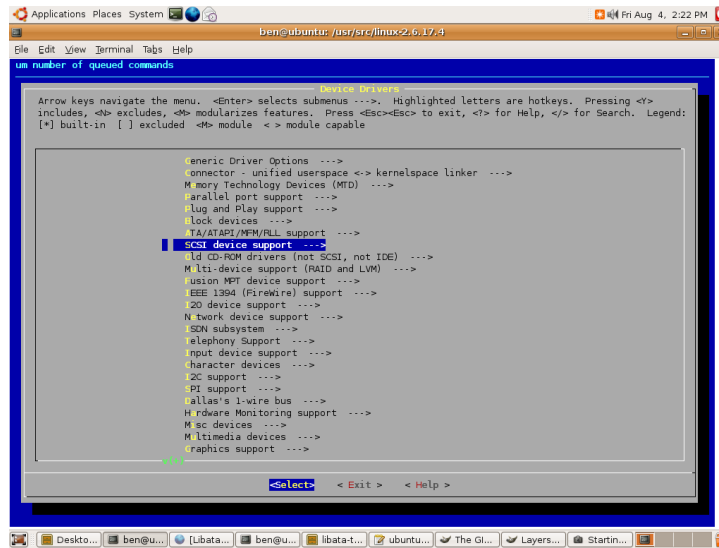
```
[root@localhost linux-2.6.17.4]# make menuconfig
```



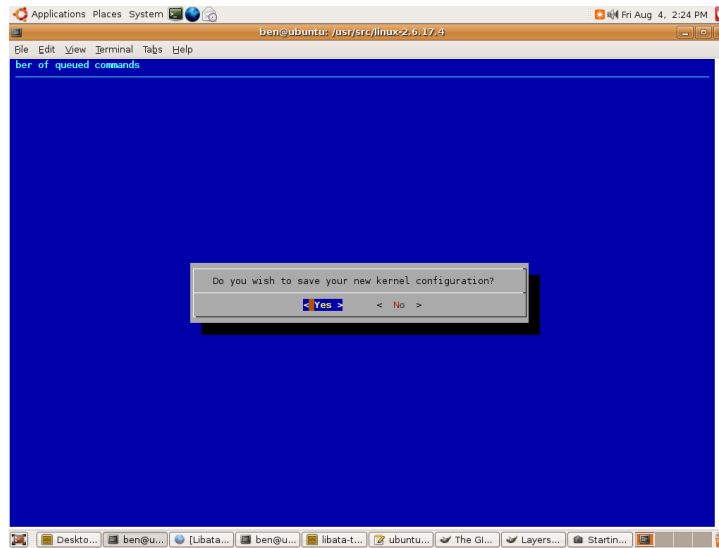
Under **Device Drivers** > **ATA/ATAPI/MFM/RLL support**, check if **Silicon Image chipset support** is built-in <*>.



Under Device Drivers > SCSI device support > SCSI low-level drivers, check if Silicon Image 3124/3132 SATA support is a module <M>.



Save changes.



6. Build Kernel and Modules

```
[root@localhost linux-2.6.17.4]# make bzImage  
[root@localhost linux-2.6.17.4]# make modules  
[root@localhost linux-2.6.17.4]# make modules_install
```

7. Installing the Kernel

```
[root@localhost linux-2.6.17.4]# make install
```

8. Verify Addition of HDD connected to Port Multiplier

```
[root@localhost ~]# uname -r  
[root@localhost ~]# cat /proc/partitions
```

NOTE: PATCHES CONTAINED IN THIS ARCHIVE SHOULD BE CONSIDERED EXPERIMENTAL AND MAY CAUSE MASSIVE DATA LOSS. YOU'VE BEEN WARNED. DON'T USE THIS ON CRITICAL PRODUCTION SYSTEMS.