the psycho cat on an HP Mini with Ubuntu

Cheap Plugs
If you've found these tutorials useful, please consider donating a small amount to one of my favorite non-profits/charities. Every little bit helps.

You may also want to consider donating directly to the Ubuntu project.

Using PartImage in Ubuntu

Note: In case you couldn't tell from the *extremely* old screenshots, this tutorial is no longer maintained. More importantly, PartImage does not support Ext4 partitions, and Ubuntu defaults to the Ext4 filesystem format. I'm told PartClone (which does support Ext4) is a good alternative. You might also want to look into CloneZilla.

PartImage is a program that will copy the image of an entire partition, making it easy to restore a partition (including all its programs, files, and directories) *exactly* as they were before.

It comes in handy for two situations:

- Creating a simple backup of your installation in case you're planning to make major changes to it. That way, in case the upgrade or other major change causes problems, you can easily restore your partition to exactly the way it was before.
- Using the same Ubuntu configuration on several of computers that have the exact same hardware.

This tutorial assumes that you have a Ubuntu live CD and somewhere you can save the partition (an external hard drive or another partition).

Your first step is to boot up the live CD.

Then, go to the terminal. (If you're using Ubuntu 7.10 or earlier, you may have to enable extra repositories before you can install PartImage).

To install PartImage paste in the terminal the command:

```
sudo apt-get update && sudo apt-get install partimage
```


After it's been installed, you may need to find out the names of your partitions. To do so, type:

```
sudo fdisk -l
```

I happen to be, for this example, backing up my partition to another partition (I'm backing up /dev/hda1 on /dev/hda5. But if you're backing up your partition to an external hard drive, you should plug in the external hard drive *before* typing

```
sudo fdisk -l
```

```
                          ubuntu@ubuntu: /home/ubuntu
File  Edit  View  Terminal  Tabs  Help
Preconfiguring packages ...
Selecting previously deselected package partimage.
(Reading database ... 60316 files and directories currently installed.)
Unpacking partimage (from .../partimage_0.6.4-10_i386.deb) ...
Setting up partimage (0.6.4-10) ...

Reading package lists... Done
Building dependency tree
Reading extended state information
Initializing package states... Done
ubuntu@ubuntu:~$ sudo fdisk -l

Disk /dev/hda: 20.0 GB, 20020396544 bytes
255 heads, 63 sectors/track, 2434 cylinders
Units = cylinders of 16065 * 512 = 8225280 bytes

   Device Boot      Start         End      Blocks   Id  System
/dev/hda1   *           1        1275    10241406   83  Linux
/dev/hda2            1276        2434     9309667+    5  Extended
/dev/hda5            1276        2388     8940141   83  Linux
/dev/hda6            2389        2434      369463+   82  Linux swap / Solaris
ubuntu@ubuntu:~$ sudo mkdir /backup
ubuntu@ubuntu:~$ sudo mount -t ext3 /dev/hda5 /backup
ubuntu@ubuntu:~$
```
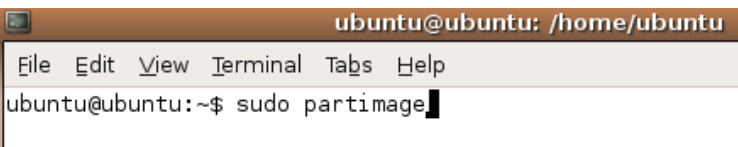
This part, you can skip if you external hard drive gets automounted.

In my case, I'm going to have to create a mount point (/backup) and then mount /dev/hda5 on the mount point.

Keep in mind--the partition to be backed up should *not* be mounted.
The partition you're backing up *to* should be mounted, though.

```
                          ubuntu@ubuntu: /home/ubuntu
File  Edit  View  Terminal  Tabs  Help
ubuntu@ubuntu:~$ sudo partimage
```

To run PartImage, type

```
sudo partimage
```

```
                    ubuntu@ubuntu: /home/ubuntu                    _ □ X
 File  Edit  View  Terminal  Tabs  Help
 ┌──────────────────┤ Partition Image 0.6.4 ├──────────────────┐
 │  * Partition to save/restore                                │
 │  hda1                              ext3fs      9.77 GiB   #  │
 │  hda2                              -extended-               │
 │  hda5                              ext3fs      8.53 GiB     │
 │  hda6                              swap (v1)   360.80 MiB   │
 │  cloop0                            ext2fs      2.00 GiB     │
 │  sda1                              fat16       488.70 MiB   │
 │                                                             │
 │  * Image file to create/use                                │
 │  /backup/hda1partition                                     │
 │                                                             │
 │  Action to be done:                          <Next (F5)>   │
 │  (*) Save partition into a new image file                  │
 │  ( ) Restore partition from an image file    <About>       │
 │  ( ) Restore an MBR from the imagefile                     │
 │                                              <Exit (F6)>   │
 │  [ ] Connect to server                                     │
 │      IP/name of the server:              Port: 4025        │
 │      [X] Encrypt data on the network with SSL              │
 └─────────────────────────────────────────────────────────────┘
```
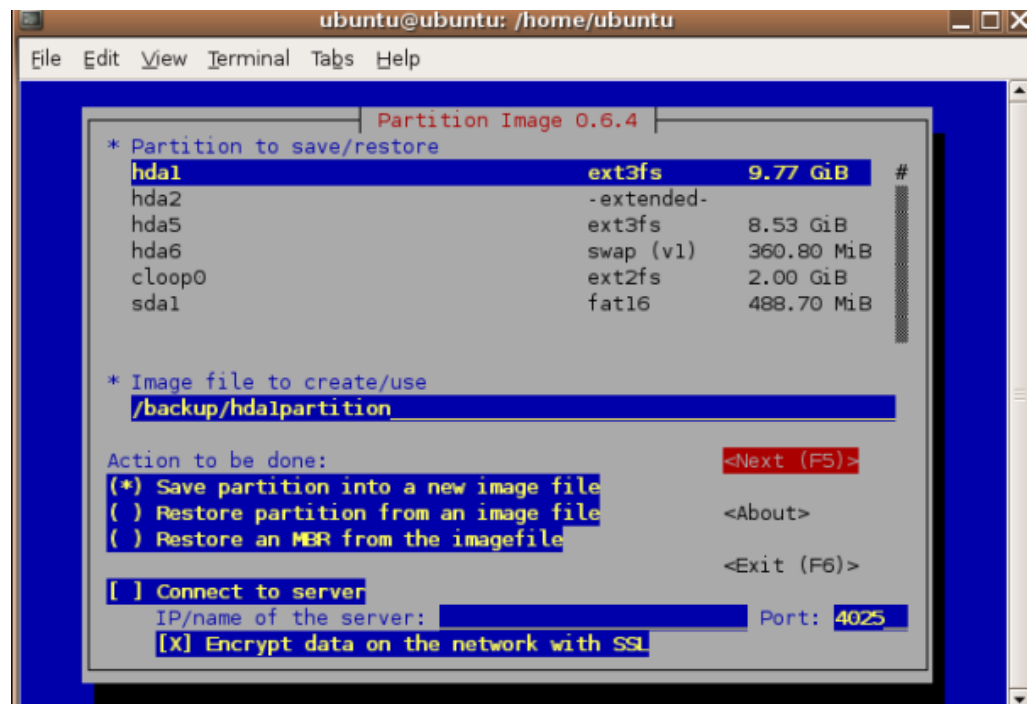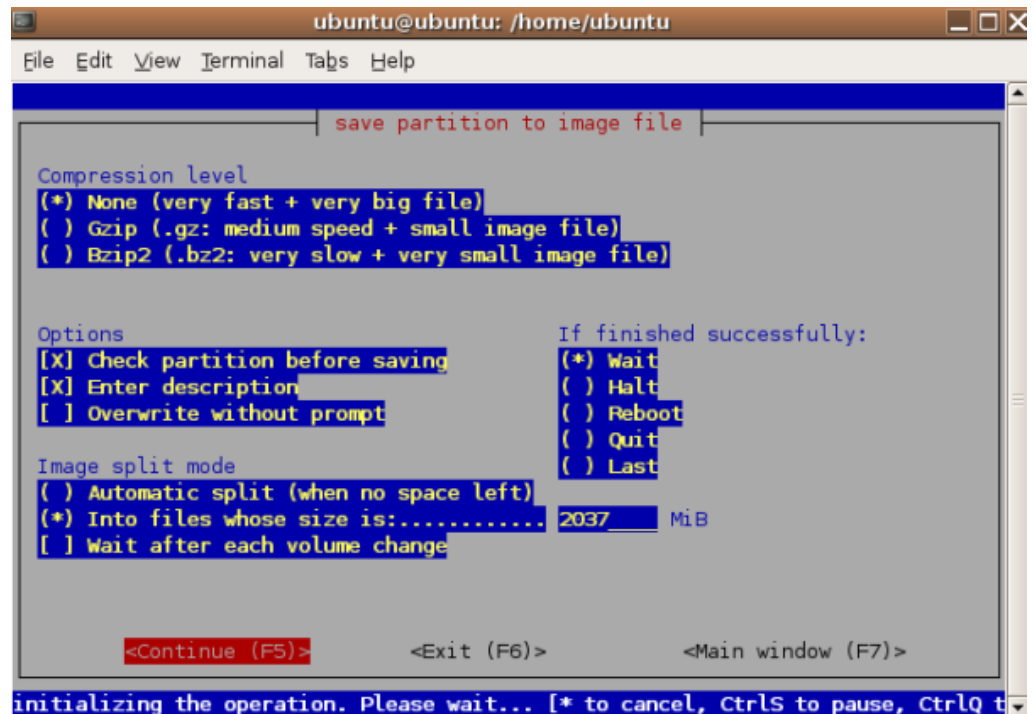
Once you launch PartImage, use the Up and Down arrows to select which partition to back up.

Type the name of the path *and* file where you're going to back up the partition. Since I mounted the backup partition at /backup, I have to type /backup/hda1partition and not just hda1partition. You can use whatever name you want, though. I could have called it /backup/gobbledygook

Action to be done should be **Save partition into a new image file**.

Then tab to <Next (F5)> and press **Enter** to move to the next screen.


```
                    ubuntu@ubuntu: /home/ubuntu                    _ □ X
 File  Edit  View  Terminal  Tabs  Help
 ┌──────────────────┤ save partition to image file ├──────────────┐
 │  Compression level                                             │
 │  (*) None (very fast + very big file)                          │
 │  ( ) Gzip (.gz: medium speed + small image file)               │
 │  ( ) Bzip2 (.bz2: very slow + very small image file)           │
 │                                                                │
 │  Options                     If finished successfully:         │
 │  [X] Check partition before saving   (*) Wait                  │
 │  [X] Enter description               ( ) Halt                  │
 │  [ ] Overwrite without prompt        ( ) Reboot               │
 │                                      ( ) Quit                  │
 │  Image split mode                    ( ) Last                  │
 │  ( ) Automatic split (when no space left)                      │
 │  (*) Into files whose size is:............. 2037    MiB        │
 │  [ ] Wait after each volume change                             │
 │                                                                │
 │   <Continue (F5)>      <Exit (F6)>      <Main window (F7)>      │
 └────────────────────────────────────────────────────────────────┘
 initializing the operation. Please wait... [* to cancel, CtrlS to pause, CtrlQ t
```

On the next screen, use no compression if you want the backup to be quicker. You really should use the Gzip or Bzip2 options only if your external hard drive or other backup partition is too small to hold the contents of the partition you're backing up.

Keep in mind, though, that the backup will save only the used space on the partition.
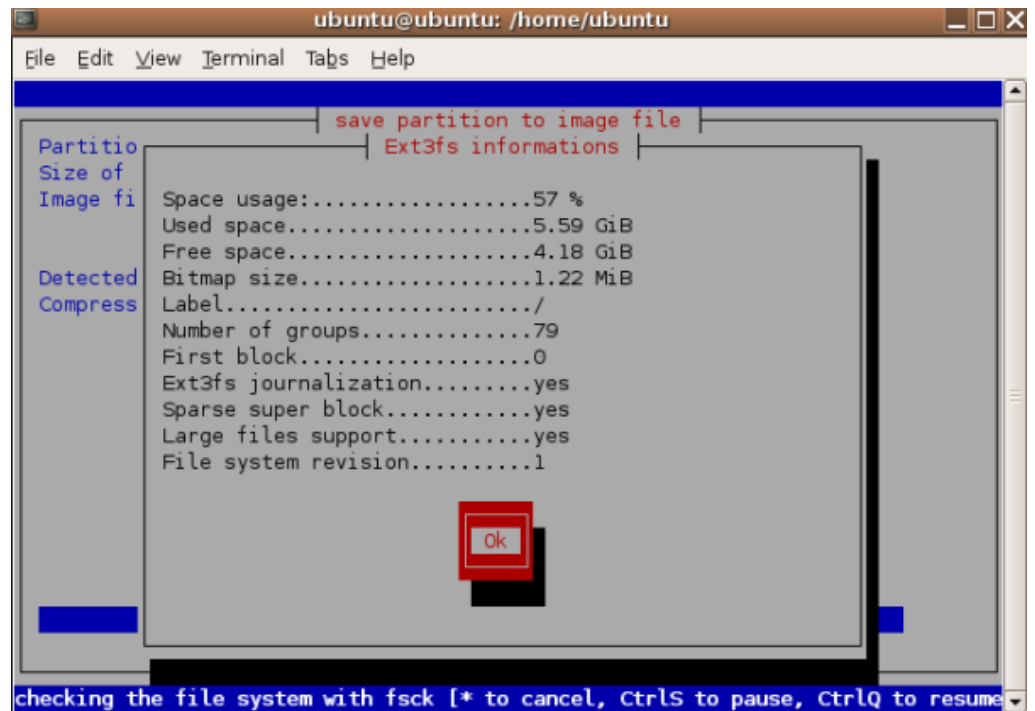
So, if you have a 30 GB partition you're backing up and only 7 GB of it is used, the partition image will be only 7 GB.

For the rest of the options, the defaults are good.
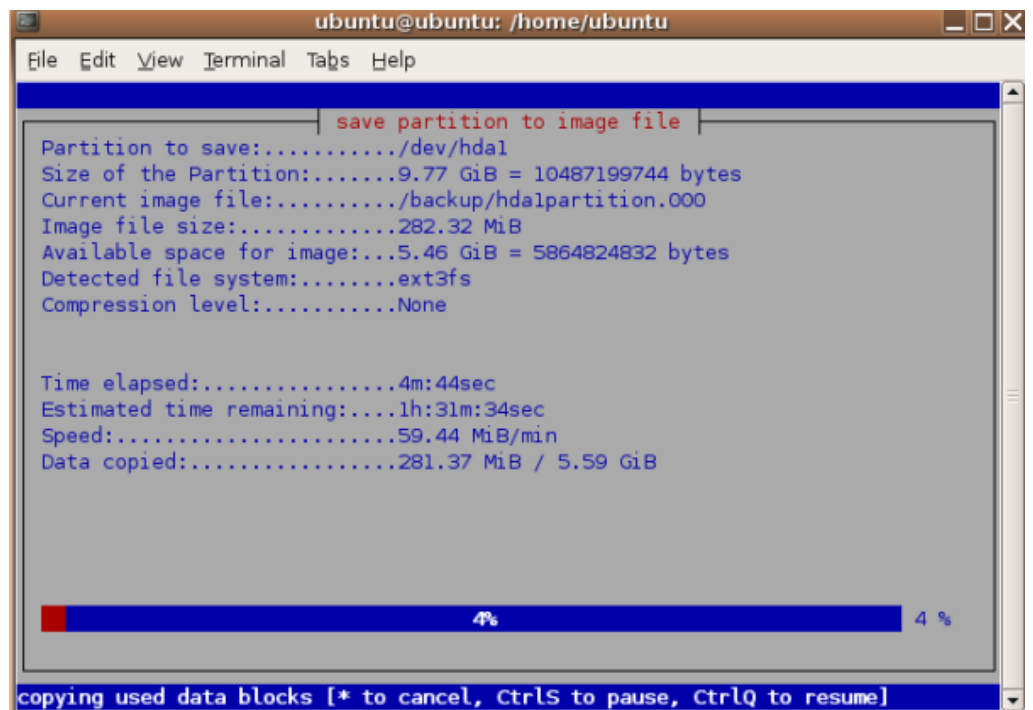
Tab to <Continue (F5)> and press **Enter**
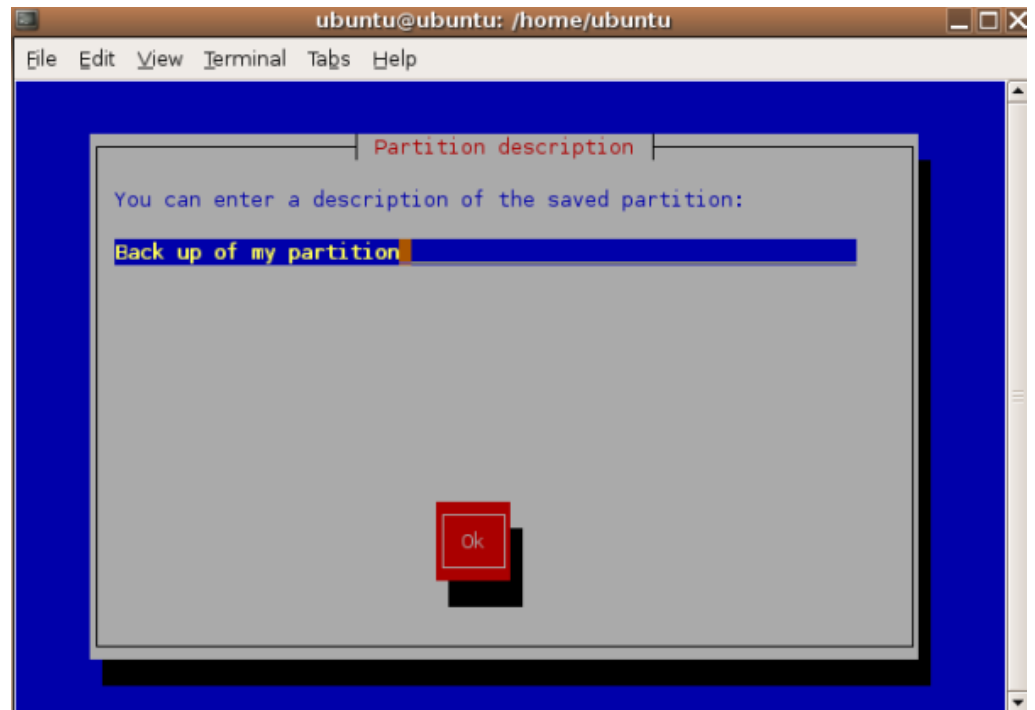
You'll then be asked to give the new image a description. Type whatever you want.


After PartImage examines the partition data for a while, it'll give a summary of the partition.

Once you press **Enter** on the last screen, PartImage will start saving your partition to an image file on the backup partition.

My back up was on an extremely slow computer, so it took over an hour, but if you have more than a 766 MHz processor and 128 MB of RAM, then you should get a faster backup time.
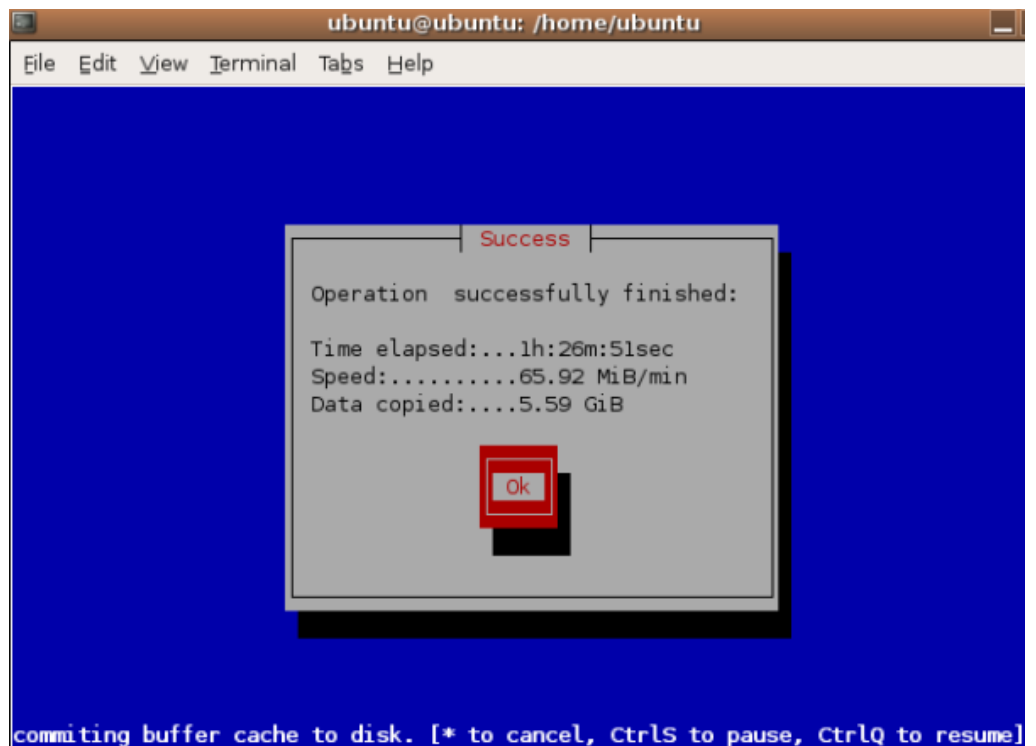
And when you're done you'll get this screen.
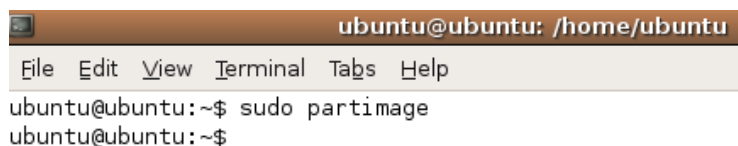
Then, you'll be back to the terminal prompt, and you can reboot.

The restore process is very similar except that you choose the **Restore partition from an image file** option when PartImage launches.

You can find more good information about how to use PartImage at its website: www.partimage.org

If you have suggestions or corrections for these tutorials, please post in this Ubuntu Forums thread or leave a comment on my blog.

I will not give help to people posting in the above places. If you require technical support, start a support thread on the Ubuntu Forums. That is the appropriate place to ask for help.