Preparing a new external drive, for use under Linux[1]

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Ref.: seagate0.tex
Ver. code: 20120922c

Abstract

External disk drives (portable disks) are very convenient, and essential for making backups. One major problem, often encountered with these devices is that they usually carry unnecessary (and propreitary) partitions (usually NTFS partitions) which contain unnecessary material. This unnecessary and redundant stuff is a nuisance, since it is usually Microsoft based garbage. It unproductively occupies space on your drive, and is not usable in a Linux world.

Recovering the disk, requires some carefully executed steps. This article explains the steps to be taken, to repair the irritating problem which many Linux users face regularly.

1 Preparing a new external drive, for use under Linux

Getting the maximum from your external disk drive (portable disk), requires you to remove unnecessary material which the disk manufacturer has put in. Here is what you have to do :

1.1 Steps to be taken

1. Read the warning at the end of this article.
2. Plan in advance. Make a list of partitions, their sizes, and their names, which you want to create on the new disk.

[1]This is a LaTeX document. You can get the LaTeX source of this document from drpartha@gmail.com. Please mention the Reference Code, and Version code, given at the top of this document

3. Reboot, and then plug in the drive.
4. $dmesg \mid tail$ will give the drive name, say /dev/sdx
5. Switch to super user mode su
6. $fdisk\ /dev/sdx$
7. Delete NTFS partition and other offending partitions. See that there are no unwanted partitions left on the drive.
8. Create your own partitions of the size you want, using $fdisk\ /dev/sdx$ Command n
9. Check with $fdisk\ /dev/sdx$ Command p
10. Write and exit fdisk, using the w command
11. Make filesystems on each partition of sdx. Use $mkfs.ext3\ /dev/sdx$
12. Use $e2label\ \ < device/partition > < label >$ to assign a label to a partition
13. e.g. $e2label\ /dev/sdb1\ mummy$
14. e.g. $e2label\ /dev/sdb2\ daddy$
15. Check-out if everything is okay

To checkout and make sure:

- reboot the system, keep the drive connected, and confirm using *mount* command that the partitions are mounted (you may have to tweak the /etc/fstab file).
- try to put a file in each of the partitions using $touch\ anyfilename$ (you may need write permissions for the concerned partitions).
- try moving files from one partition to another (you may need write permissions for the concerned partitions).

1.2 Warning

- Most of the steps given above, expect you to be in the super-user mode (root). Do not do this if you are a newbie to Linux. It would be best to keep an experienced user, handily accessible, when you do this. You should be able to recover, if something goes wrong.
- Take notes systematically, as you perform the above steps.
- Read the fine print which comes with the device. You may be nullifying the guarantee terms.

1.3 Note from the author

Please send comments and suggestions, to the author (drpartha@gmail.com). If you used the procedure given above, and encountered any difficulties, please alert the author.

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