Repartitioning your hard disk without deleting Windows

1 Aim

Often when you buy a computer, Windows 98 (or now, Windows ME) is installed in one partition, with most of that partition being empty. It's a shame to waste that space without installing Linux there. This guide tells you how to repartition your hard disk without losing any of your Windows that you paid for as part of the price of buying the computer. This guide is a guide only, and does not replace the documentation, which you will find on the first Red Hat 7 CD, in the dosutils/fips20 (and the dosutils/fipsdocs) directories.

2 Background

There are a number of commercial programs for non-destructive disk partitioning, the most famous being Partition Magic. However, there is at least one well-tested alternative that we look at here, called `fips`.

There is a section from *The Official Red Hat Linux Reference Guide* at `http://CSAlinux.tycm.vtc.edu.hk/doc7/rhl-rg-en-7.0/s1-dualboot-fips.html` which describes how to use `fips`.

You can read the user manual for `fips` by typing:

```
emacs /mnt/cdrom/dosutils/fips20/fips.doc
```

or you can see it from `ftp://CSAlinux.tycm.vtc.edu.hk/pub/redhat-7.0/dosutils/fips20/fips.doc`.

2.1 Warning

Note that I have done this a number of times, always successfully. However, I make no guarantee that it will work for you. If your data is important, back it up first.

3 Procedure

3.1 An overview of the procedure

1. make a DOS boot disk (see section 3.2 on the following page).

2. copy the files `fips.exe`, `restorerb.exe`, `errors.txt` to this disk. Probably good to copy `fips.doc` there also.

3. run `scandisk`, and (if you have an old installation), `defrag`.

4. boot the computer with this disk.

5. type `fips`

6. `fips` shows lots of information about the disks.

7. use the left and right arrow keys to adjust the amount of space you want to leave in the Windows partition, and the amount you want for Linux.

8. press $\boxed{y}$ to have `fips` write the changes to disk.

9. The system will halt. Reboot it.

10. Use the installation process to partition the hard disk as discussed in our first workshop. When you start `fdisk`, you will see two partitions: the original Windows partition, and a new FAT partition, which you can delete, and replace with whatever partitions you want.

3.2   Making a DOS boot disk

There are many ways of making a DOS boot disk, but the quickest way is:

1. open an MS-DOS prompt

2. put a blank, formatted floppy in the drive

3. type `sys a:`