



Linux Basico

João de Deus Carvalho



Filesystem & Devices

/dev/hda	IDE0 Master
/dev/hdb	IDE0 Slave
/dev/hdc	IDE1 Master
/dev/hdd	IDE1 Slave
/dev/hde	IDE ATA133 (1 disco)
/dev/sda	SCSI (1 disco) *
/dev/sr0	SCSI Removable *

* alguns equipamentos fazem emulação



Filesystem & Devices

/dev/hdx1 – 4 Primary Partitions
/dev/hdx5 + Logical Partitions

Maximum IDE = 15 (3 + 12)

Maximum SCSI = 63 (3 + 60)



Filesystem & Devices

Filesystems

ext2,minix – linux filesystems

msdos,vfat,ntfs – windows filesystems

ext3,reiser – jorning linux filesystems

iso9660,udf – cdrom filesystems

nfs,smb,ncp,intermezzo,coda,afs - network filesystems

ocfs,gfs – cluster filesystems

swap – linux swap disk

proc,usbfs,devfs,ptyfs – especial partition



Filesystem & Devices

tty – Consolas

ttyS,cua - Portas Serie

dsp,mixer,sequencer,audio,midi – Placa de SOM

agpgart – acelerador da placa de video

apm_bios – power management

fd -floppy

sd,hd – disco duro

loop – loop block device

lp,paraport - printer devices

null,zero,random – special devices

psaux – rato ps/2

video – placas TV , aceladoras MPG



Filesystem & Devices

Command (m for help): m

Command action

- a** toggle a bootable flag
- b** edit bsd disklabel
- c** toggle the dos compatibility flag
- d** delete a partition
- l** list known partition types
- m** print this menu
- n** add a new partition
- o** create a new empty DOS partition table
- p** print the partition table
- q** quit without saving changes
- s** create a new empty Sun disklabel
- t** change a partition's system id
- u** change display/entry units
- v** verify the partition table
- w** write table to disk and exit
- x** extra functionality (experts only)



Filesystem & Devices

Disk /dev/sdb: 18.3 GB, 18373206016 bytes
255 heads, 63 sectors/track, 2233 cylinders
Units = cylinders of 16065 * 512 = 8225280 bytes

Device	Boot	Start	End	Blocks	Id	System
/dev/sdb1	*	1	1020	8193118+	83	Linux
/dev/sdb2		1021	1053	265072+	82	Linux swap
/dev/sdb3		1054	2233	9478350	83	Linux



Filesystem & Devices

Exemplo Ext3

mkfs.ext3 /dev/xxxx

mke3fs /dev/xxxx

mke2fs /dev/xxxx

tune2fs -j -c 0 -i 0 /dev/xxx

fsck.ext3 /dev/xxxx

Filesystem & Devices

```
root@morgana% cat /etc/fstab
/dev/sdb2 swap swap defaults 0 0
/dev/sdb1 / ext3 defaults 1 1
/dev/sdb3 /home ext3 defaults,usrquota 1 2
/dev/sda1 /backup ext3 defaults 1 2
/dev/hdc1 /backup/MP3 ext3 defaults 1 2
/dev/cdrom /mnt/cdrom iso9660 noauto,user,ro 0 0
/dev/cdrom /mnt/admin iso9660 noauto,exec,ro 0 0
/dev/fd0 /mnt/floppy auto noauto,user 0 0
/dev/sdc1 /mnt/Sony vfat defaults,user,noauto 0 0
/dev/sdd1 /mnt/Sony2 vfat defaults,user,noauto 0 0
none /dev/pts devpts gid=5,mode=620 0 0
none /proc proc defaults 0 0
none /proc/bus/usb usbdevfs defaults,noauto 0 0
```

LABEL=xxxx



Filesystem & Devices

RAID Types

Linear mode (min 2)

RAID 0 (min 2)

RAID 1 (min 2)

RAID 4 (min 3)

RAID 5 (min 3)



Filesystem & Devices

Sistema de ficheiros

lib

bin

var

share

etc

mnt

sbin

mnt

tmp

/

/usr

/usr/local



Shell commands

ls

rm

mkdir

rmdir

cd,pwd

chmod

chown

cat

sort

reboot,halt

vi ,pico ,emacs

find, locate

w,who,last

ln

man



Shell comandos

Redirections

```
ls > /tmp/resultado 2>/tmp/erros
```

```
ftp < comandos
```

```
ls | more
```



Shell commands

Bash

```
export VAR=valor  
cmd > out 2> err  
env
```

Tcsh

```
setenv VAR valor  
cmd > out  
cmd >& out+err  
env
```



Shell commands

ENV VARS

PATH,MANPATH
HOST,HOSTNAME

USER,GROUP

SHELL

TERM

PWD

HOME

CMD

ulimit



Shell comandns

VI

Comand prompt:

:wq,

:w/ficheiro,

:q!,

:r/ficheiro

i, a, x, r , dd , yy , p , .



Noções Basicas

Consolas

- **Consola texto**
- **Consola texto grafica**
- **Consola X11**
- **Consola remota**

Boot loaders

- **GRUP**
- **LILO**
- **SYSLINUX**



Noções Básicas

```
# Start LILO global section
boot = /dev/sda
#compact      # faster, but won't work on all systems.
delay = 50
# Normal VGA console
vga = normal
# VESA framebuffer console @ 1024x768x64k
# vga=791
#lba32
#linear
image = /vmlinuz
  root = /dev/sdb1
  label = Linux
  read-only
```



Noções Basicas

Ficheiros de Arranque :

/etc/rc.d

/etc/inittab

/etc/X11/XF86Config

System V

/etc/rc.d/init.d

/etc/rc.d/rcx.d

/etc/sysconfig