

Linux System Administrator

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Login Linux Ubuntu

Login Pertama Kali

ubuntu login: **budi**

Sandi lewat: ***** (**Password Tidak Terlihat**)

Terakhir log masuk: Sen Mei 3 14:33:59 WIT 2010 pada tty1

Linux ubuntu 2.6.24-16-generic #1 SMP Thu Apr 10 13:23:42 UTC 2008 i686

The programs included with the Ubuntu system are free software; the exact distribution terms for each program are described in the individual files in /usr/share/doc/*/copyright.

Ubuntu comes with ABSOLUTELY NO WARRANTY, to the extent permitted by applicable law.

To access official Ubuntu documentation, please visit:

<http://help.ubuntu.com/>

budi@ubuntu:~\$ sudo su - (**Perintah login ke Root / Superuser**)

[sudo] password for budi: ***** (**Password user budi instalasi pertama kali**)

root@ubuntu:~# passwd (**Mengganti Password Superuser**)

Masukkan sandi lewat UNIX baru:

Masukkan ulang sandi lewat UNIX baru:

passwd: kata sandi diperbaharui dengan sukses

root@ubuntu:~#

Konfigurasi Alamat IP

Konfigurasi Alamat IP

```
root@server:~# vim /etc/network/interfaces
```

```
# This file describes the network interfaces available on your system  
# and how to activate them. For more information, see interfaces(5).
```

```
# The loopback network interface
```

```
auto lo
```

```
iface lo inet loopback
```

```
# The primary network interface
```

```
auto eth0
```

```
iface eth0 inet static
```

```
address 192.168.0.71
```

```
netmask 255.255.255.0
```

```
auto eth1
```

```
iface eth1 inet static
```

```
address 122.200.52.23
```

```
netmask 255.255.255.128
```

```
gateway 122.200.52.1
```

Restart Perangkat Jaringan

```
root@server:~# /etc/init.d/networking restart
```

Melihat status default gateway

```
root@ubuntu:~# netstat -nr
```

```
Kernel IP routing table
Destination      Gateway          Genmask         Flags   MSS Window  irtt  Iface
192.168.0.0      0.0.0.0         255.255.255.0   U        0  0        0   eth0
169.254.0.0     0.0.0.0         255.255.0.0     U        0  0        0   eth0
0.0.0.0         192.168.0.71   0.0.0.0         UG       0  0        0   eth0
```

Mencoba koneksi internet dan LAN

```
root@ubuntu:~# ping 192.168.0.71
```

```
PING 192.168.0.71 (192.168.0.71) 56(84) bytes of data.
64 bytes from 192.168.0.71: icmp_seq=1 ttl=64 time=0.212 ms
64 bytes from 192.168.0.71: icmp_seq=2 ttl=64 time=0.220 ms
64 bytes from 192.168.0.71: icmp_seq=3 ttl=64 time=0.216 ms
64 bytes from 192.168.0.71: icmp_seq=4 ttl=64 time=0.206 ms (Akhiri Loop:: CTRL + c)
```

```
--- 192.168.0.71 ping statistics ---
```

```
4 packets transmitted, 4 received, 0% packet loss, time 2999ms
rtt min/avg/max/mdev = 0.206/0.213/0.220/0.015 ms
```

```
root@ubuntu:~# ping 122.200.52.1
```

```
PING 122.200.52.1 (122.200.52.1) 56(84) bytes of data.
64 bytes from 122.200.52.1: icmp_seq=1 ttl=63 time=7.41 ms
64 bytes from 122.200.52.1: icmp_seq=2 ttl=63 time=65.2 ms
64 bytes from 122.200.52.1: icmp_seq=3 ttl=63 time=82.1 ms
64 bytes from 122.200.52.1: icmp_seq=4 ttl=63 time=42.8 ms (Akhiri Loop:: CTRL + c)
```

```
--- 122.200.52.1 ping statistics ---
```

```
4 packets transmitted, 4 received, 0% packet loss, time 3001ms
rtt min/avg/max/mdev = 7.418/49.413/82.162/27.976 ms
```

Konfigurasi DNS

```
root@server:~# vim /etc/resolv.conf
```

```
nameserver 192.168.0.71
nameserver 202.46.1.2
nameserver 122.200.48.14
```

Mencoba konfigurasi DNS

```
root@ubuntu:~# nslookup www.yahoo.com
```

```
Server:      192.168.0.71
Address:     192.168.0.71#53
```

```
Non-authoritative answer:
```

```
www.yahoo.com canonical name = fp.wg1.b.yahoo.com.
```

```
fp.wg1.b.yahoo.com canonical name = any-fp.wa1.b.yahoo.com.  
Name: any-fp.wa1.b.yahoo.com  
Address: 98.137.149.56  
Name: any-fp.wa1.b.yahoo.com  
Address: 72.30.2.43
```

```
root@ubuntu:~# ping www.yahoo.com
```

```
PING any-fp.wa1.b.yahoo.com (72.30.2.43) 56(84) bytes of data.  
64 bytes from ir1.fp.vip.sk1.yahoo.com (72.30.2.43): icmp_seq=1 ttl=51 time=224 ms  
64 bytes from ir1.fp.vip.sk1.yahoo.com (72.30.2.43): icmp_seq=2 ttl=51 time=221 ms  
64 bytes from ir1.fp.vip.sk1.yahoo.com (72.30.2.43): icmp_seq=3 ttl=51 time=221 ms  
64 bytes from ir1.fp.vip.sk1.yahoo.com (72.30.2.43): icmp_seq=4 ttl=51 time=233 ms
```

```
--- any-fp.wa1.b.yahoo.com ping statistics ---  
4 packets transmitted, 4 received, 0% packet loss, time 3001ms  
rtt min/avg/max/mdev = 221.387/225.051/233.064/4.757 ms
```

Informasi Perangkat Keras Linux

Informasi Processor

```
root@ubuntu:~# cat /proc/cpuinfo
```

```
processor      : 0  
vendor_id     : AuthenticAMD  
cpu family    : 15  
model         : 79  
model name    : AMD Sempron(tm) Processor 3000+  
stepping      : 2  
cpu MHz       : 1607.415  
cache size    : 256 KB  
fdiv_bug      : no  
hlt_bug       : no  
f00f_bug     : no  
coma_bug     : no  
fpu           : yes  
fpu_exception : yes  
cpuid level   : 1  
wp            : yes  
flags         : fpu vme de pse tsc msr pae mce cx8 apic sep mtrr pge mca cmov pat pse36  
clflush mmx fxsr sse sse2 syscall nx mmxext fxsr_opt rdtscp lm 3dnowext 3dnow up pni  
cx16 lahf_lm extapic cr8_legacy ts ttp tm stc  
bogomips     : 3218.22  
clflush size  : 64
```

Informasi Penggunaan Memory

```
root@ubuntu:~# cat /proc/meminfo
```

```
MemTotal: 970380 kB
MemFree: 304248 kB
Buffers: 47712 kB
Cached: 372272 kB
SwapCached: 0 kB
Active: 331596 kB
```

Informasi Partisi Hardisk

```
root@ubuntu:~# fdisk -l (huruf L bukan angka satu)
```

```
Disk /dev/sda: 40.0 GB, 40020664320 bytes
255 heads, 63 sectors/track, 4865 cylinders
Units = cylinders of 16065 * 512 = 8225280 bytes
Disk identifier: 0x025d025d
```

| Device | Boot | Start | End | Blocks | Id | System |
|-----------|------|-------|------|-----------|----|----------------------|
| /dev/sda1 | * | 1 | 892 | 7164958+ | 83 | Linux |
| /dev/sda2 | | 1021 | 3570 | 20482875 | 83 | Linux |
| /dev/sda3 | | 3571 | 4865 | 10402087+ | 83 | Linux |
| /dev/sda4 | | 893 | 1020 | 1028160 | 5 | Extended |
| /dev/sda5 | | 893 | 1020 | 1028128+ | 82 | Linux swap / Solaris |

```
root@budi-desktop:~# df
```

| Filesystem | 1K-blocks | Used | Available | Use% | Mounted on |
|------------|-----------|----------|-----------|------|-------------|
| /dev/sdb6 | 29223512 | 3541944 | 24216788 | 13% | / |
| udev | 472944 | 4 | 472940 | 1% | /dev |
| tmpfs | 192088 | 912 | 191176 | 1% | /run |
| none | 5120 | 4 | 5116 | 1% | /run/lock |
| none | 480212 | 76 | 480136 | 1% | /run/shm |
| /dev/sdb7 | 58485072 | 1176480 | 54378980 | 3% | /home |
| /dev/sdb5 | 30701232 | 10276512 | 20424720 | 34% | /media/DATA |

Informasi Perangkat USB

```
root@ubuntu:~# lsusb
```

```
Bus 002 Device 001: ID 0000:0000
Bus 001 Device 002: ID 12d1:140c Huawei Technologies Co., Ltd.
Bus 001 Device 001: ID 0000:0000
```

Informasi Driver yang digunakan linux

```
root@ubuntu:~# lsmod
```

| Module | Size | Used by |
|---------------|-------|---------|
| nls_iso8859_1 | 4992 | 1 |
| nls_cp437 | 6656 | 1 |
| vfat | 14464 | 1 |
| fat | 54556 | 1 vfat |
| isofs | 36388 | 1 |

```

ipv6          267780 17
rfcomm        41744  2
l2cap         25728 13 rfcomm
bluetooth     61156 4 rfcomm,l2cap

```

Task Manager Linux

root@ubuntu:~# top (untuk quit tekan huruf q)

```

top - 17:30:05 up 17 min, 2 users, load average: 0.06, 0.13, 0.21
Tasks: 118 total, 2 running, 116 sleeping, 0 stopped, 0 zombie
Cpu(s): 1.3%us, 0.3%sy, 0.0%ni, 98.3%id, 0.0%wa, 0.0%hi, 0.0%si, 0.0%st
Mem: 970380k total, 671592k used, 298788k free, 48376k buffers
Swap: 996020k total, 0k used, 996020k free, 372556k cached

  PID USER      PR  NI  VIRT  RES  SHR  S  %CPU  %MEM    TIME+  COMMAND
 5964 root        20   0 98472  24m 6812  S   0.7   2.6   0:20.78 Xorg
 6454 budi        20   0  144m  47m  14m  S   0.7   5.0   0:37.49 totem
 6750 budi        20   0 66180  19m  10m  R   0.7   2.0   0:00.88 gnome-terminal
 6552 budi        20   0  208m  84m  59m  S   0.3   8.9   0:25.76 soffice.bin
   1 root         20   0   2844  1692  544  S   0.0   0.2   0:01.42 init
   2 root         15  -5     0     0     0  S   0.0   0.0   0:00.00 kthreadd
   3 root         RT  -5     0     0     0  S   0.0   0.0   0:00.00 migration/0
   4 root         15  -5     0     0     0  S   0.0   0.0   0:00.02 ksoftirqd/0
   5 root         RT  -5     0     0     0  S   0.0   0.0   0:00.00 watchdog/0
   6 root         15  -5     0     0     0  S   0.0   0.0   0:00.02 events/0
   7 root         15  -5     0     0     0  S   0.0   0.0   0:00.00 khelper
  42 root         15  -5     0     0     0  S   0.0   0.0   0:00.04 kblockd/0
  45 root         15  -5     0     0     0  S   0.0   0.0   0:00.00 kacpid
  46 root         15  -5     0     0     0  S   0.0   0.0   0:00.00 kacpi_notify
 160 root         15  -5     0     0     0  S   0.0   0.0   0:00.00 kseriod
 198 root         20   0     0     0     0  S   0.0   0.0   0:00.00 pdflush
 199 root         20   0     0     0     0  S   0.0   0.0   0:00.00 pdflush

```

Informasi Jaringan Komputer

Trafik Jaringan Internet dan LAN

root@budi-desktop:~# apt-get install iftop

root@budi-desktop:~# iftop -i ppp0

Trace Alamat IP

root@budi-desktop:~# apt-get install traceroute

root@budi-desktop:~# traceroute www.detik.com

traceroute to www.detik.com (203.190.242.69), 30 hops max, 60 byte packets

```

 1 10.20.30.77 (10.20.30.77) 71.571 ms 81.518 ms 82.507 ms
 2 * * *
 3 10.20.161.40 (10.20.161.40) 114.432 ms 144.419 ms 145.380 ms
 4 202.70.56.49 (202.70.56.49) 146.368 ms 92.326 ms 93.241 ms
 5 202.70.56.17 (202.70.56.17) 93.222 ms 134.240 ms 134.226 ms
 6 ip-177-141.moratelindo.co.id (202.43.177.141) 146.175 ms 147.172 ms 103.508 ms

```

```
7 218.100.36.2 (218.100.36.2) 109.434 ms 109.417 ms 118.434 ms
8 detik.openixp.net (218.100.27.192) 118.420 ms 148.375 ms 148.363 ms
9 203.190.244.6 (203.190.244.6) 171.371 ms 172.325 ms 187.844 ms
10 203.190.242.69 (203.190.242.69) 289.785 ms 380.763 ms 487.730 ms
```

Informasi Domain Internet

```
root@budi-desktp:~# whois detik.com
Domain Name: DETIK.COM
Registrar: NETWORK SOLUTIONS, LLC.
Whois Server: whois.networksolutions.com
Referral URL: http://www.networksolutions.com/en_US/
Name Server: NS.DETIK.NET.ID
```

```
root@budi-desktp:~# whois 202.70.56.49
% [whois.apnic.net node-5]
% Whois data copyright terms http://www.apnic.net/db/dbcopyright.html
```

```
inetnum: 202.70.56.0 - 202.70.56.255
netname: SMART-TELECOM-ID
descr: PT SMART TELECOM
country: ID
```

Melihat Trafik Jaringan

```
root@budi-desktp:~# apt-get install ngrep
root@budi-desktp:~# ngrep -d ppp0
```

Melihat Routing Table

```
root@budi-desktp:~# netstat -nr
```

Kernel IP routing table

| Destination | Gateway | Genmask | Flags | MSS Window | irrt | Iface |
|-------------|-------------|-----------------|-------|------------|------|-------|
| 0.0.0.0 | 10.20.31.17 | 0.0.0.0 | UG | 0 0 | 0 | ppp0 |
| 10.20.31.17 | 0.0.0.0 | 255.255.255.255 | UH | 0 0 | 0 | ppp0 |
| 169.254.0.0 | 0.0.0.0 | 255.255.0.0 | U | 0 0 | 0 | ppp0 |

Konfigurasi Repository Aplikasi

Alamat Repository Ubuntu

| | |
|---|---------------------------------------|
| http://dl2.foss-id.web.id | (Telkom Speedy) |
| http://kambing.ui.ac.id | (Univesitas Indonesia) |
| http://ubuntu.cbn.net.id | (Provider Internet CBN) |
| ftp://ftp.itb.ac.id | (Institut Teknologi Bandung) |
| http://komo.vlsm.org | (Institut Teknologi Sepuluh November) |

Konfigurasi Repository

```
root@server:~# vim /etc/apt/sources.list
deb http://kambing.ui.ac.id/ubuntu karmic main universe multiverse restricted
deb http://kambing.ui.ac.id/ubuntu karmic-updates main universe multiverse restricted
deb http://kambing.ui.ac.id/ubuntu karmic-security main universe multiverse restricted
deb http://kambing.ui.ac.idubuntu karmic-proposed main universe multiverse restricted
deb http://kambing.ui.ac.idubuntu karmic-backports main universe multiverse restricted
```

Update List Aplikasi Repository

```
root@server:~# apt-get update
Hit http://kambing.ui.edu karmic Release.gpg
Hit http://kambing.ui.edu karmic/main Translation-id
Ign http://kambing.ui.edu karmic/universe Translation-id
Hit http://kambing.ui.edu karmic/multiverse Translation-id
```

Pencarian Aplikasi yang diinginkan

```
root@server:~# apt-cache search vim
exuberant-ctags - build tag file indexes of source code definitions
linuxdoc-tools - convert LinuxDoc SGML source into other formats
vim - Vi IMproved - enhanced vi editor
vim-common - Vi IMproved - Common files
vim-dbg - Vi IMproved - enhanced vi editor (debugging symbols)
vim-doc - Vi IMproved - HTML documentation
vim-gnome - Vi IMproved - enhanced vi editor - with GNOME2 GUI
vim-gui-common - Vi IMproved - Common GUI files
vim-runtime - Vi IMproved - Runtime files
vim-tiny - Vi IMproved - enhanced vi editor - compact version
```

Instalasi Aplikasi

```
root@server:~# apt-get install mysql-server
root@server:~# apt-get install vim nmap ngrep
root@server:~# apt-get install inkscape dia xfig scribus
root@server:~# dpkg -i google-chrome-1.0.deb
root@server:~# apt-get -f install (Meng install dependensi yang belum terpasang)
```

Menghapus Aplikasi

```
root@server:~# apt-get autoremove nmap (Menghapus aplikasi tdk beserta konfigurasi)
root@server:~# aptitude purge nmap (Menghapus aplikasi beserta konfigurasi)
```

Pencarian Aplikasi yang terpasang

```
root@server:~# dpkg-query -W | grep vim
vim 2:7.2.245-2ubuntu2
vim-common 2:7.2.245-2ubuntu2
vim-runtime 2:7.2.245-2ubuntu2
vim-tiny 2:7.2.245-2ubuntu2
```


Pencarian direktori lokasi aplikasi

```
root@server:~# dpkg -L vim
/usr/bin/vim.basic
/usr/share
/usr/share/lintian
/usr/share/lintian/overrides
/usr/share/lintian/overrides/vim
```

Instalasi Driver Printer

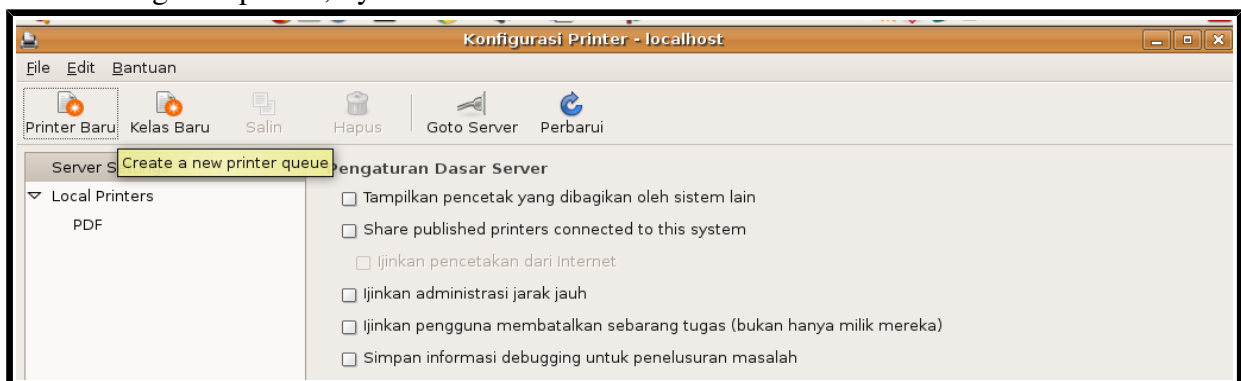
Contoh: **Canon PIXMA IP3500**



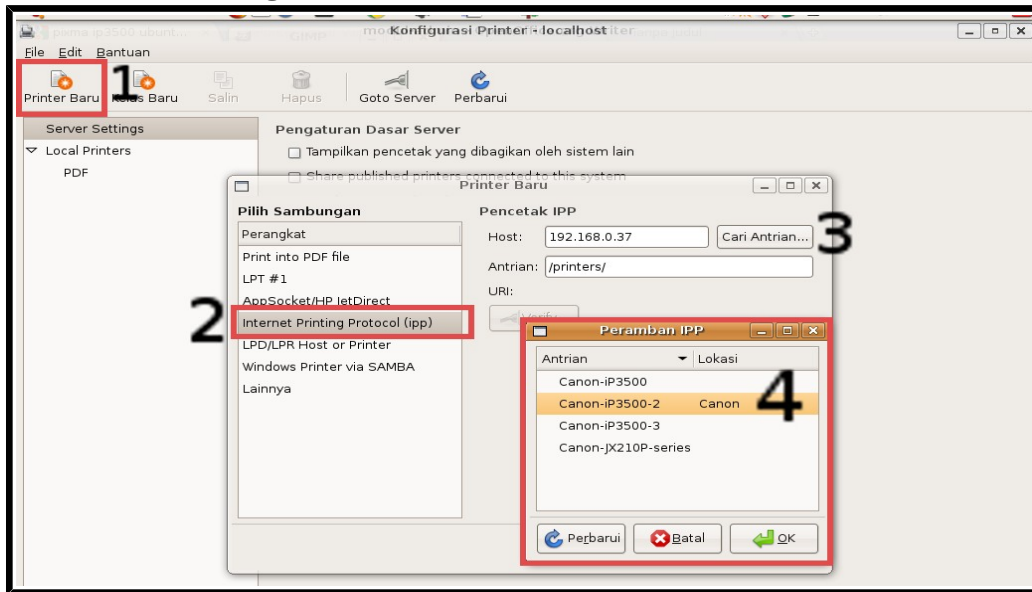
1. Langkah pertama cari di www.google.com

[[ubuntu](#)] [[SOLVED](#)] [Canon Pixma ip3500 - Ubuntu Forums](#) ☆ - [[Terjemahkan laman ini](#)]
5 pesan - 4 penulis - Pos terakhir: 4 Jun 2009
[[ubuntu](#)] [[SOLVED](#)] [Canon Pixma ip3500 Hardware & Laptops. ... Both Canon-Europe and Canon-Australia have the same driver packages. ...](#)
[ubuntuforums.org](#) > ... > [Hardware & Laptops](#) - [Tembolok](#) - [Mirip](#)
[canon pixma ip 3500](#) - 5 pesan - 6 Feb 2008
[new repository for a FEW canon printer drivers - Page 5](#) - 10 pesan - 29 Jan 2008
[Telusuran lainnya dari ubuntuforums.org](#) »

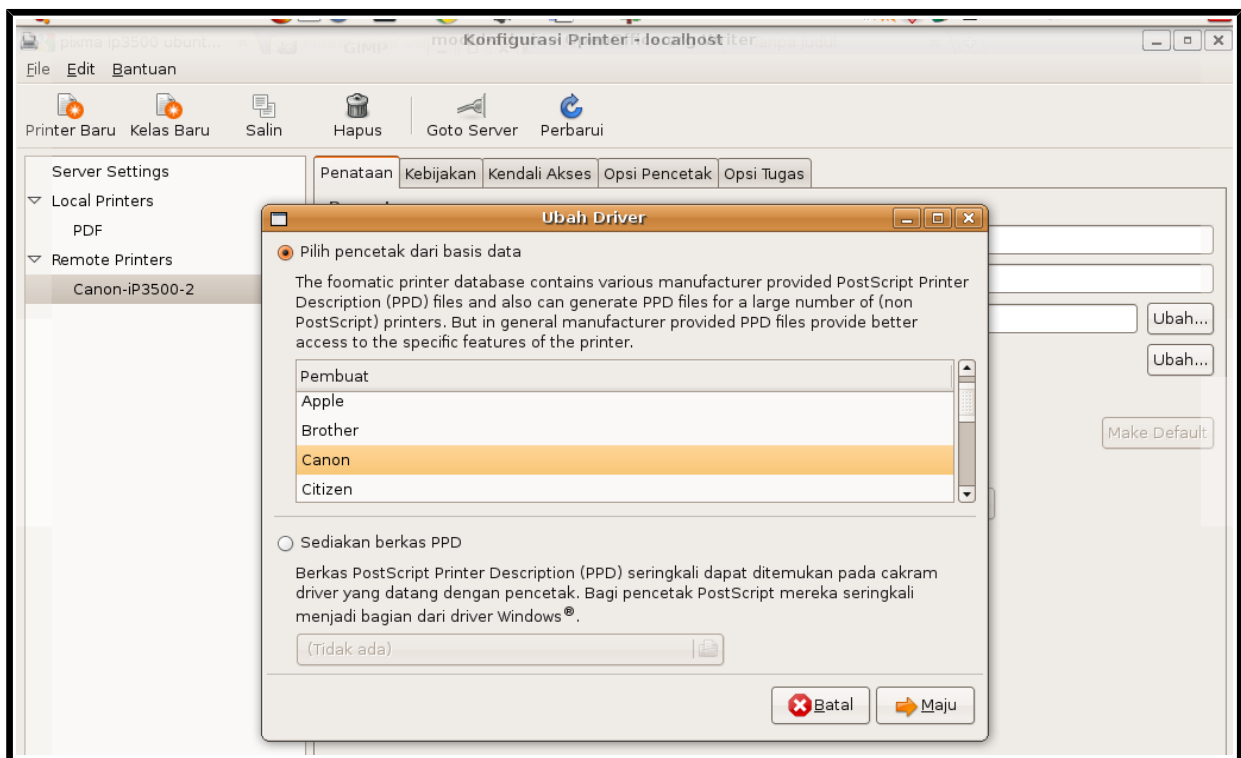
2. Download driver di alamat
<http://support-au.canon.com.au/contents/AU/EN/0100083401.html>
<http://support-au.canon.com.au/contents/AU/EN/0100083501.html>
3. Instalasi driver canon pixma ip3500
root@ubuntu:/home/budi/Downloads# dpkg -i cnijfilter-common_2.80-1_i386.deb
root@ubuntu:/home/budi/Downloads# dpkg -i cnijfilter-ip3500series_2.80-1_i386.deb
4. Konfigurasi printer, System --> Administration --> Printer --> **New Printer**

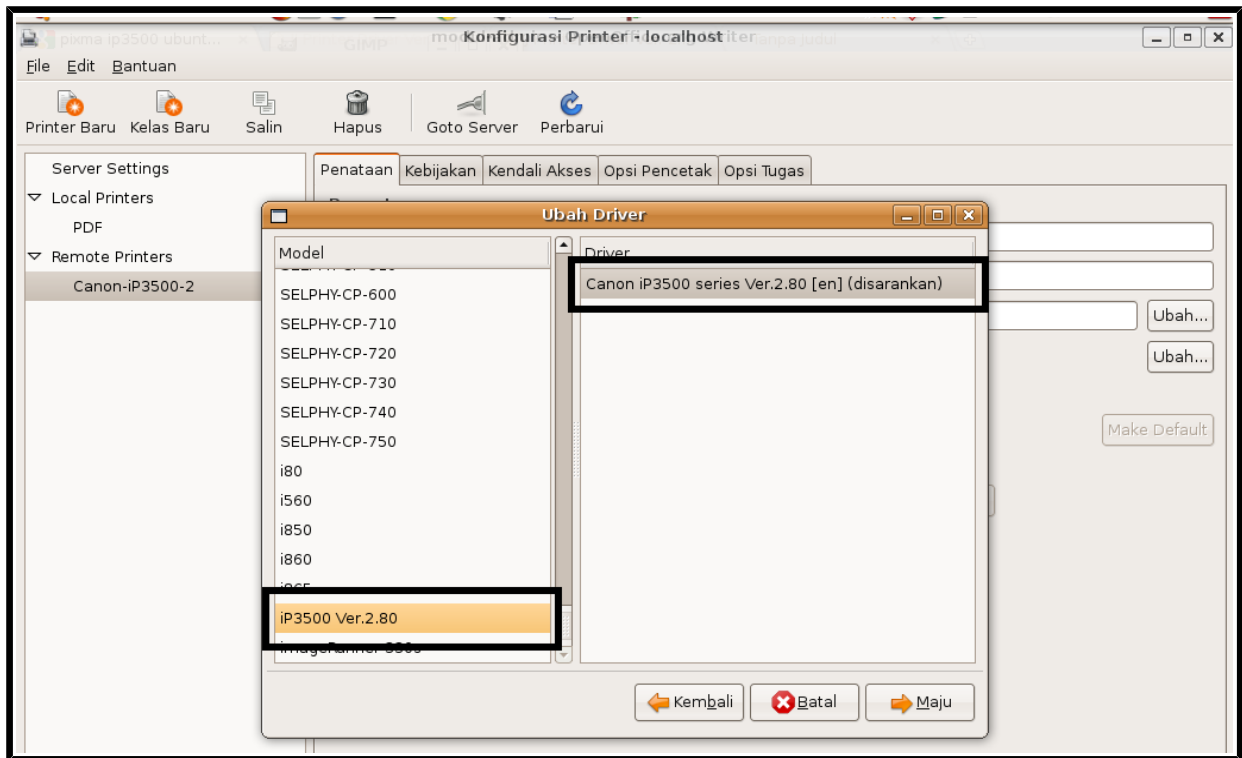


5. Pilih Internet Printing Protocol



6. Masuk Pilihan Driver Canon





Pengelolaan User dan Group

Login ke root

```
budi@ubuntu:~$ sudo su -
[sudo] password for budi:
root@ubuntu:~#
```

Penambahan User

```
root@ubuntu:~# adduser dono
Menambahkan pengguna 'dono' ...
Menambah grup baru `dono' (1001) ...
Membuat direktori home '/home/dono' ...
Menyalin berkas dari `/etc/skel' ...
Masukkan sandi lewat UNIX baru:
Masukkan ulang sandi lewat UNIX baru:
passwd: kata sandi diperbaharui dengan sukses
Mengubah informasi pengguna dari dono
Masukkan nilai baru atau tekan ENTER untuk nilai bawaan
  Nama Lengkap []: Dono Warkop DKI
  Nomor Ruangan []:
  Telepon Kantor []:
  Telepon Rumah []:
  Lain-lain []:
Apakah keterangan tersebut benar? [y/T] y
```

Melihat User ID

```
root@ubuntu:~# id budi
uid=1000(budi) gid=1000(budi)
kelompok=1000(budi),4(adm),20(dialout),24(cdrom),25(floppy),29(audio),30(dip),44(video),46(plugdev),107(fuse),109(lpadmin),115(admin),124(sambashare)
```

```
root@ubuntu:~# id dono
uid=1001(dono) gid=1001(dono) kelompok=1001(dono)
```

Mengganti Password User

```
root@ubuntu:~# passwd dono
Masukkan sandi lewat UNIX baru:
Masukkan ulang sandi lewat UNIX baru:
passwd: kata sandi diperbaharui dengan sukses
```

```
root@ubuntu:~# passwd budi
Masukkan sandi lewat UNIX baru:
Masukkan ulang sandi lewat UNIX baru:
passwd: kata sandi diperbaharui dengan sukses
```

Menghapus user

```
root@ubuntu:~# userdel uni (Hapus user uni tanpa dengan home dir)
root@ubuntu:~# userdel -r uni (Hapus user uni dengan home dir)
```

Melihat User Login

```
root@server:~# last
root pts/2 192.168.0.2 Mon May 3 13:48 - 14:34 (00:46)
root pts/0 192.168.0.2 Mon May 3 12:48 still logged in
```

```
root@server:~# lastlog
Username      Port  From      Latest
root          pts/2  192.168.0.2  Sen Mei 3 13:48:02
daemon
bind
sshd
ardelindo     tty2
**Never logged in**
**Never logged in**
**Never logged in**
Sen Apr 26 08:27:51
```

Menambahkan Group

```
root@ubuntu:~# groupadd sales (Menambahkan group baru sales)
root@ubuntu:~# gpasswd -a eri sales (Menambah user eri ke group sales)
Menambahkan pengguna eri ke grup sales
root@ubuntu:~# gpasswd -a dono sales (Menambah user dono ke group sales)
Menambahkan pengguna dono ke grup sales
```

Memeriksa anggota group

```
root@ubuntu:~# id eri
uid=1002(eri) gid=1002(eri) kelompok=1002(eri),1003(sales)
root@ubuntu:~# id dono
uid=1001(dono) gid=1001(dono) kelompok=1001(dono),1003(sales)
root@ubuntu:~# cat /etc/group | grep sales
sales:x:1003:eri,dono
```

Menghapus anggota dari group

```
root@ubuntu:~# gpasswd -d dono sales
Mengeluarkan pengguna dono dari grup sales
root@ubuntu:~# gpasswd -d eri sales
Mengeluarkan pengguna eri dari grup sales
root@ubuntu:~# groupdel sales (Menghapus group sales)
```

Login ke Root tanpa password

```
root@ubuntu:~# groupadd wheel
root@ubuntu:~# gpasswd -a budi wheel
root@ubuntu:~# vim /etc/pam.d/su
#dihilangkan pagar di depan kata auth
auth    sufficient pam_wheel.so trust
budi@ubuntu:~$ su -
root@ubuntu:~# <-- Langsung ke root / superuser tanpa password
```

Manajemen Direktori dan File

Instalasi Tree

```
root@ubuntu:~# apt-get install tree
Reading package lists... Done
Building dependency tree
Reading state information... Done
tree telah berada dalam versi terbaru.
```

Membuat direktori

```
root@ubuntu:~# mkdir -p kota/depok/bogor/solo/madiun
root@ubuntu:~# tree kota/ (Melihat struktur direktori kota)
kota/
|-- depok
    |-- bogor
        |-- solo
            |-- madiun
```

```
root@ubuntu:~# mkdir -p kota/magetan/caruban/ngawi/bojonegoro
root@ubuntu:~# tree kota/
kota/
|-- depok
|  |-- bogor
|     |-- solo
|         |-- madiun
|-- magetan
|   |-- caruban
|       |-- ngawi
|           |-- bojonegoro
```

Autocomplete

```
cd kota/[TAB]/[TAB]/[TAB] (Tekan tombol keyboard TAB)
root@ubuntu:~# cd kota/depok/bogor/solo/madiun/
```

Berganti Direktori

```
root@ubuntu:~# cd kota/depok/bogor/solo/madiun/
root@ubuntu:~/kota/depok/bogor/solo/madiun# pwd (Posisi direktori sekarang)
/root/kota/depok/bogor/solo/madiun
```

```
root@ubuntu:~/kota/depok/bogor/solo/madiun# cd ../ (Naik satu tingkat)
root@ubuntu:~/kota/depok/bogor/solo# pwd
/root/kota/depok/bogor/solo
```

```
root@ubuntu:~/kota/depok/bogor/solo# cd ../../.. (Naik tiga tingkat)
root@ubuntu:~/kota# pwd
/root/kota
```

Menghapus Direktori

```
root@ubuntu:~# rm -fr kota/magetan/caruban/ngawi/
root@ubuntu:~# tree kota/
kota/
|-- depok
|  |-- bogor
|     |-- solo
|         |-- madiun
|-- magetan
|   |-- caruban
```

Menyalin direktori

```
root@ubuntu:~# cp -R kota/magetan/ kota/depok/bogor/solo/
root@ubuntu:~# tree kota/
kota/
|-- depok
|  |-- bogor
|     |-- solo
```

```
|      |-- madiun
|      `-- magetan
|          `-- caruban
|-- magetan
|      `-- caruban
```

Merubah Nama Direktori

```
root@ubuntu:~# mv kota/magetan/ kota/kediri (Rename magetan jadi kediri)
root@ubuntu:~# tree kota/
kota/
|-- depok
|  `-- bogor
|     `-- solo
|         |-- madiun
|         `-- magetan
|             `-- caruban
|-- kediri
|     `-- caruban
```

Membuat Link Direktori

```
root@ubuntu:~# ln -s kota/kediri/ jatim
root@ubuntu:~# ls -la | grep jatim
lrwxrwxrwx 1 root root    12 2010-05-04 09:45 jatim -> kota/kediri/
```

Membuat File Kosong

```
root@ubuntu:~# cp filebaru.txt kota/depok/bogor/
root@ubuntu:~# tree kota/
kota/
|-- depok
|  `-- bogor
|     |-- filebaru.txt
|     `-- solo
|         |-- madiun
|         `-- magetan
|             `-- caruban
|-- kediri
|     `-- caruban
```

Menghapus File

```
root@ubuntu:~# rm -fr kota/depok/bogor/filebaru.txt
root@ubuntu:~# tree kota/
kota/
|-- depok
|  `-- bogor
|     `-- solo
|         |-- madiun
|         `-- magetan
```

Kepemilikan dan Hak Izin Akses

Kepemilikan dan Hak Izin Akses

```
root@ubuntu:~# touch percobaan.txt
root@ubuntu:~# ls -la percobaan.txt
-rw-r--r-- 1 root root 0 2010-05-04 10:25 percobaan.txt
```

Hak Izin Akses

| | | |
|------|-------|-------|
| USER | GROUP | OTHER |
| rw- | r-- | r-- |

Kepemilikan

| | |
|------|-------|
| root | root |
| User | Group |

Legenda:

- r = Read (Baca) = 4
- w = Write (Tulis) = 2
- x = Execute (Eksekusi) = 1

Merubah kepemilikan

```
root@ubuntu:~# ls -la percobaan.txt
-rw-r--r-- 1 root root 0 2010-05-04 10:25 percobaan.txt
```

```
root@ubuntu:~# chown -R budi.sales percobaan.txt
root@ubuntu:~# ls -la percobaan.txt
-rw-r--r-- 1 budi sales 0 2010-05-04 10:25 percobaan.txt
```

Merubah Hak Izin Akses

| | | | | | | |
|-------------|-------------|-------------|-----------|-------------|-------------|-------------|
| $4 + 2 + 0$ | $4 + 0 + 0$ | $4 + 0 + 0$ | | $4 + 2 + 1$ | $4 + 2 + 0$ | $0 + 0 + 0$ |
| rw- | r-- | r-- | → chmod → | rw- | r-- | r-- |
| 6 | 4 | 4 | | 7 | 6 | 0 |

```
root@ubuntu:~# ls -la percobaan.txt
-rw-r--r-- 1 budi sales 0 2010-05-04 10:25 percobaan.txt
root@ubuntu:~# chmod -R 760 percobaan.txt
root@ubuntu:~# ls -la percobaan.txt
-rwxrw---- 1 budi sales 0 2010-05-04 10:25 percobaan.txt
```

Super User ID

```
root@ubuntu:~# ls -la /bin/touch
-rwxrwxr-x 1 root root 43740 2008-04-04 13:42 /bin/touch
root@ubuntu:~# chmod 4775 /bin/touch
root@ubuntu:~# ls -la /bin/touch
-rwsrwxr-x 1 root root 43740 2008-04-04 13:42 /bin/touch
```



```
budi@ubuntu:~$ touch dataku.txt
budi@ubuntu:~$ ls -la dataku.txt
-rw-r--r-- 1 root budi 0 2010-05-04 14:02 dataku.txt
```

Imunitas File

```
root@ubuntu:~# touch test.txt
root@ubuntu:~# chattr +i test.txt
root@ubuntu:~# lsattr test.txt
----i----- test.txt

root@ubuntu:~# rm test.txt
rm: tidak dapat menghapus `test.txt': Operation not permitted
root@ubuntu:~# chattr -i test.txt
root@ubuntu:~# rm test.txt
```

Pencarian file dan data

Locate file

```
root@ubuntu:~# updatedb
root@ubuntu:~# locate passwd
/etc/passwd
/etc/passwd-
/etc/security/opasswd
```

Perintah Find

```
root@ubuntu:~# find /etc/ -perm 755 -type f (File yang hak izin akses 755)
/etc/resolvconf/update-libc.d/avahi-daemon
/etc/wpa_supplicant/ifupdown.sh
/etc/wpa_supplicant/functions.sh
/etc/mysql/debian-start
/etc/cron.monthly/0anacron

root@ubuntu:~# ls -la /etc/X11/Xsession
-rwxr-xr-x 1 root root 3730 2008-03-13 22:10 /etc/X11/Xsession

root@ubuntu:~# find /etc/ -name "*.sh" -type f (File extension *.sh)
/etc/lsb-base-logging.sh
/etc/openoffice/soffice.sh

root@ubuntu:~# find /etc/ -type f -mtime -2 (File yang diupdate 2 hari yang lalu)
/etc/resolv.conf
/etc/gshadow-
```

```

root@ubuntu:~# date
Sel Mei  4 14:25:01 WIT 2010
root@ubuntu:~# ls -la /etc/resolv.conf
-rw-r--r-- 1 root root 196 2010-05-04 12:17 /etc/resolv.conf

```

Pencarian Text dalam File

```

root@ubuntu:~# grep -r smtp /etc/services
smtp      25/tcp      mail
ssmtp     465/tcp      smtps      # SMTP over SSL
root@ubuntu:~# grep -r budi /etc/passwd
budi:x:1000:1000:budi,,,:/home/budi:/bin/bash
root@ubuntu:~# grep -r sales /etc/group
sales:x:1004:

```

Pengalihan Arah Keluaran

```

root@ubuntu:~# netstat -nr
Kernel IP routing table
Destination      Gateway          Genmask         Flags   MSS Window  irtt  Iface
192.168.0.0      0.0.0.0         255.255.255.0   U       0  0        0     eth0
169.254.0.0     0.0.0.0         255.255.0.0    U       0  0        0     eth0
0.0.0.0         192.168.0.71   0.0.0.0        UG      0  0        0     eth0
root@ubuntu:~# netstat -nr > file.txt
root@ubuntu:~# cat file.txt
Kernel IP routing table
Destination      Gateway          Genmask         Flags   MSS Window  irtt  Iface
192.168.0.0      0.0.0.0         255.255.255.0   U       0  0        0     eth0
169.254.0.0     0.0.0.0         255.255.0.0    U       0  0        0     eth0
0.0.0.0         192.168.0.71   0.0.0.0        UG      0  0        0     eth0

```

Penyaringan Keluaran Perintah

```

root@ubuntu:~# ls -la /etc/ | grep -r passwd
-rw-r--r-- 1 root root 1809 2010-05-03 15:28 passwd
-rw----- 1 root root 1806 2010-05-03 15:28 passwd-

root@ubuntu:~# ls -la /etc/ | grep -r gro
drwxr-xr-x 2 root root 4096 2010-03-23 10:34 groff
-rw-r--r-- 1 root root 1016 2010-05-04 11:11 group
-rw----- 1 root root 1002 2010-05-03 15:37 group-
-rw-r--r-- 1 root root 599 2006-06-20 01:21 logrotate.conf
drwxr-xr-x 2 root root 4096 2010-04-01 13:55 logrotate.d

```

Editor Vim

Membuat file baru

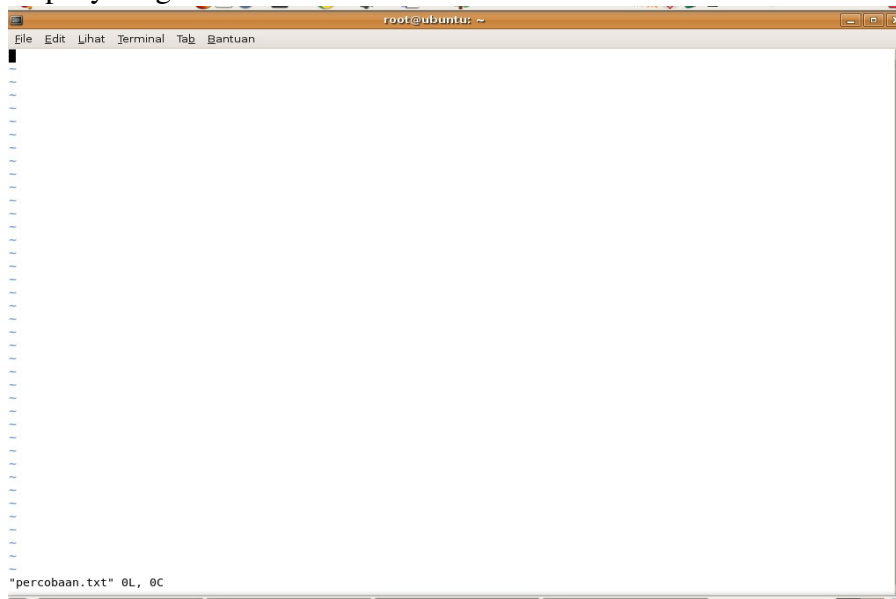
```

root@ubuntu:~# apt-get install vim
root@ubuntu:~# vim percobaan.txt

```

Mode Perintah

Mode perintah hanya untuk menjalankan perintah vim, copy, paste, insert dan lain – lain, bukan untuk melakukan penyuntingan file.



Mengedit File

Untuk edit file tekan huruf “ i “ atau tombol keyboard **Insert**, sampai kursor paling bawah ada tulisan INSERT.



Menyimpan File dan keluar

Untuk menyimpan file keluar dari mode edit dengan menekan tombol **ESC** hingga tulisan INSERT dibawah **tidak tampak**. Kemudian tekan tombol “ :wq” dan enter.



Perintah ViM standar:

| | |
|-------------------|---|
| :w | : Simpan file |
| :wq | : Simpan dan Keluar |
| :q! | : Keluar tanpa simpan |
| :set nu | : Munculkan nomor baris |
| :set nonu | : Menghilangkan nomor baris |
| %s/jakarta/depok/ | : Ganti kata ' jakarta ' dengan ' depok ' |
| :1,10y | : Copy baris 1 sampai 10 |
| :23,40d | : Delete baris 23 sampai 40 |

Perintah ViM Console

Manipulasi text

| | |
|----------------|-----------------|
| Copy 1 baris | : SHIFT + y |
| Copy 5 baris | : 5 + SHIFT + y |
| Paste 1 kali | : p |
| Paste 5 kali | : 5p |
| Delete 1 kata | : dw |
| Delete 4 kata | : 5dw |
| Delete 1 baris | : dd |
| Delete 5 baris | : 5dd |
| Undo | : u |
| Redo | : CTRL + r |
| Ganti 1 kata | : cw |
| Ganti 3 kata | : 3cw |

Navigasi

Ke Baris 13 : 13 + SHIFT + g
Ke Halaman Pertama : 1 + SHIFT + g
Ke Halaman Akhir : SHIFT + g

Pencarian kata

/kata_yang_dicari : Pencarian ke bawah
?kata_yang_dicari : Pencarian ke atas
n : Pencarian berikutnya
SHIFT + n : Pencarian sebelumnya

Pengelolaan Proses

Melihat Proses yang aktif

```
root@ubuntu:~# ps ax
```

| PID | TTY | STAT | TIME | COMMAND |
|-----|-----|------|------|---------------|
| 1 | ? | Ss | 0:01 | /sbin/init |
| 2 | ? | S< | 0:00 | [kthreadd] |
| 3 | ? | S< | 0:00 | [migration/0] |
| 4 | ? | S< | 0:00 | [ksoftirqd/0] |
| 5 | ? | S< | 0:00 | [watchdog/0] |
| 6 | ? | S< | 0:00 | [events/0] |

```
root@ubuntu:~# ps aux | grep budi
```

```
budi 5894 0.0 0.5 7464 3088 ? S 08:05 0:01 /usr/lib/libgconf2-4/gconfd-2 4  
budi 5896 0.0 0.2 14272 1528 ? S 08:05 0:00 /usr/bin/gnome-keyring-daemon -d --login  
budi 5899 0.0 1.1 29088 5920 ? Ssl 08:05 0:00 /usr/bin/gnome-session
```

Mematikan Proses

Buka aplikasi Firefox Web Browser

```
root@ubuntu:~# ps aux | grep firefox
```

```
budi 13809 8.8 21.0 380980 108616 ? Rl 14:19 2:36 /opt/firefox/firefox-bin  
root 14439 0.0 0.1 3020 784 pts/1 R+ 14:48 0:00 grep firefox
```

```
root@ubuntu:~# killall -s 9 firefox-bin
```

```
root@ubuntu:~# killall -s 9 firefox-bin
```

```
firefox-bin: no process killed
```

```
root@ubuntu:~# ps aux | grep firefox
```

```
budi 14993 29.9 15.9 294596 82072 ? Rl 15:17 0:05 /opt/firefox/firefox-bin  
root 15035 0.0 0.1 3020 784 pts/1 R+ 15:17 0:00 grep firefox
```

```
root@ubuntu:~# kill -s 9 15035
```

```
-su: kill: (15035) - No such process
```

```
root@ubuntu:~# kill -s 9 14993
```

Melihat proses server jaringan

```
root@server:~# ps ax | grep apache
```

| | | | | |
|------|---|----|------|----------------------------|
| 3900 | ? | Ss | 0:00 | /usr/sbin/apache2 -k start |
| 3904 | ? | S | 0:00 | /usr/sbin/apache2 -k start |
| 3905 | ? | S | 0:00 | /usr/sbin/apache2 -k start |

```
root@server:~# netstat -ap | grep apache2
tcp6          0          0 [::]:www      [::]:*        LISTEN        3900/apache2
```

Penjadwalan

| menit | jam | tgl | bln | hari | CMD |
|-------|-----|-----|-----|------|--|
| 5 | * | * | * | * | CMD (CMD dijalankan tiap jam lebih 5 menit) |
| 5 | 12 | * | * | * | CMD (CMD dijalankan setiap jam 12 lebih 5 menit) |
| 5 | 1 | 23 | * | * | CMD (CMD dijalankan setiap tanggal 23 jam 01:05) |
| * | * | * | 2 | * | CMD (CMD dijalankan setiap bulan februari tgl 1) |
| * | * | * | 2 | * | CMD (CMD dijalankan setiap hari minggu) |

```
root@ubuntu:~# crontab -e
5 1 * * * tar czf /opt/etc.tar.gz /etc
crontab: installing new crontab
```

Backup dan Restore

Kompresi file dan direktori

```
root@server:~# tar czvf etc.tar.gz /etc/
tar: Removing leading `/' from member names
root@server:~# tar cjvf etc.tar.bz2 /etc/
tar: Removing leading `/' from member names
root@server:~# zip -r etc.zip /etc/
```

Kapasitas file kompresi

```
root@server:~# du -sk /etc/
12080 /etc/ (Ukuran asli 12MByte)
root@server:~# ls -la etc.* (Satuan Byte)
-rw-r--r-- 1 root root 1377966 2010-05-06 09:09 etc.tar.bz2
-rw-r--r-- 1 root root 1507396 2010-05-06 09:09 etc.tar.gz
-rw-r--r-- 1 root root 11511383 2010-05-06 09:13 etc.zip
```

Restore file kompresi

```
root@server:~# tar xzvf etc.tar.gz
root@server:~# tar xjvf etc.tar.bz2
root@server:~# unzip etc.zip
root@server:~# unrar e etc.rar
```

Membuat Partisi Baru

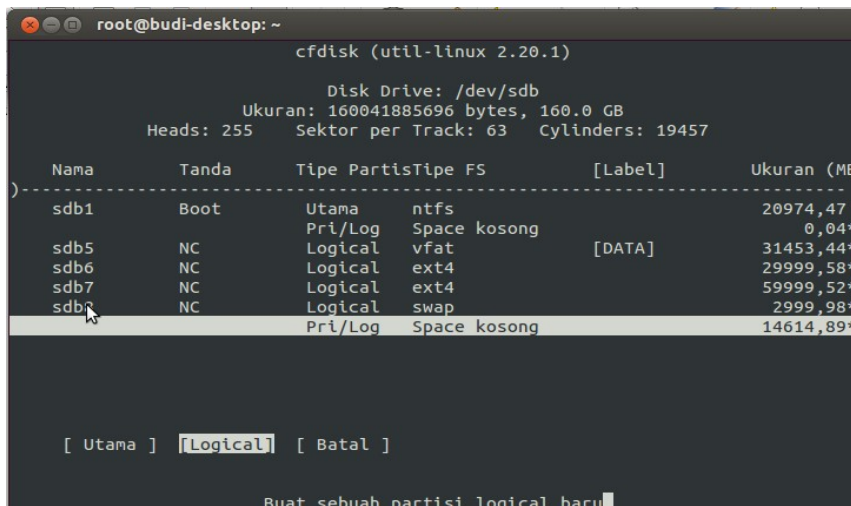
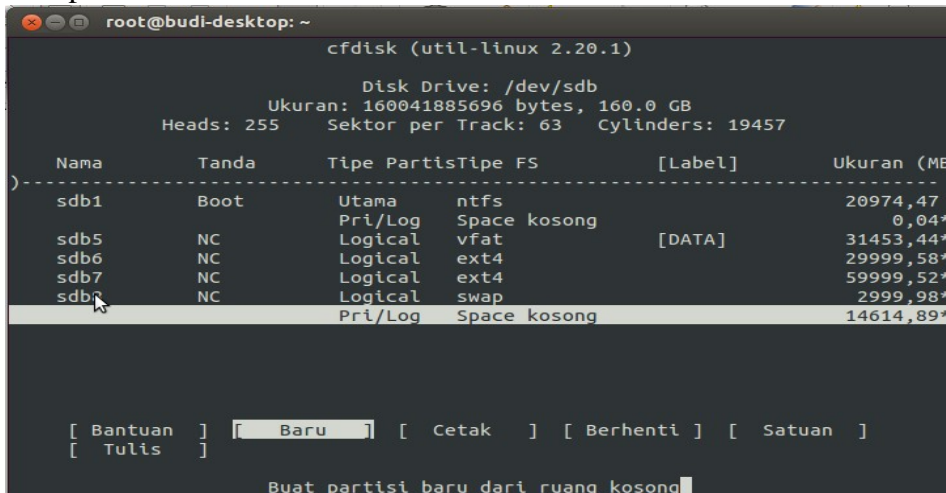
Informasi hardisk

```
root@budi-desktop:~# fdisk -l
Disk /dev/sdb: 160.0 GB, 160041885696 bytes
255 heads, 63 sektor/track, 19457 cylinders, total 312581808 sektor
Units = sektor dari 1 * 512 = 512 bytes
Ukuran sektor (logikal/fisikal): 512 bytes / 512 bytes
Ukuran I/O (minimal/optimal): 512 bytes / 512 bytes
Identifikasi disk: 0x5ac25ac2
```

| Perangkat Boot | Awal | Akhir | Blocks | Id | System |
|----------------|-----------|-----------|------------|----|----------------------|
| /dev/sdb1 * | 63 | 40965749 | 20482843+ | 7 | HPFS/NTFS/exFAT |
| /dev/sdb2 | 40965811 | 284037119 | 121535654+ | f | W95 Ext'd (LBA) |
| /dev/sdb5 | 40965813 | 102398309 | 30716248+ | b | W95 FAT32 |
| /dev/sdb6 | 102400000 | 160991231 | 29295616 | 83 | Linux |
| /dev/sdb7 | 160993280 | 278177791 | 58592256 | 83 | Linux |
| /dev/sdb8 | 278179840 | 284037119 | 2928640 | 82 | Linux swap / Solaris |

Membuat partisi baru

```
root@budi-desktop:~# cfdisk /dev/sdb
```



```

root@budi-desktop: ~
cfdisk (util-linux 2.20.1)

Disk Drive: /dev/sdb
Ukuran: 160041885696 bytes, 160.0 GB
Heads: 255   Sektor per Track: 63   Cylinders: 19457

)-----)
Nama      Tanda   Tipe PartisTipe FS      [Label]      Ukuran (MB)
-----)
sdb1      Boot    Utama   ntfs          [DATA]       20974,47
          Pri/Log  Space kosong          0,04*
sdb5      NC      Logical vfat          [DATA]       31453,44*
sdb6      NC      Logical ext4          [DATA]       29999,58*
sdb7      NC      Logical ext4          [DATA]       59999,52*
sdb8      NC      Logical swap          [DATA]       2999,98*
sdb9      NC      Logical Linux          [DATA]       14614,89*

[ Bootable ] [ Hapus   ] [ Bantuan  ] [Maksimalkan] [ Cetak   ]
[ Berhenti ] [ Tipe    ] [ Satuan   ] [ Tulis     ]

Tulis tabel partisi ke disk (Ini mungkin akan menghancurkan data)

```

```

root@budi-desktop:~# fdisk -l /dev/sdb
/dev/sdb9  284037183 312581807 14272312+ 83 Linux
root@budi-desktop:~# reboot

```

Format partisi baru

```

root@budi-desktop:~# mkfs.ext4 /dev/sdb9

```

Mount partisi baru

```

root@budi-desktop:~# mkdir /mnt/test
root@budi-desktop:~# mount /dev/sdb9 /mnt/test/

```