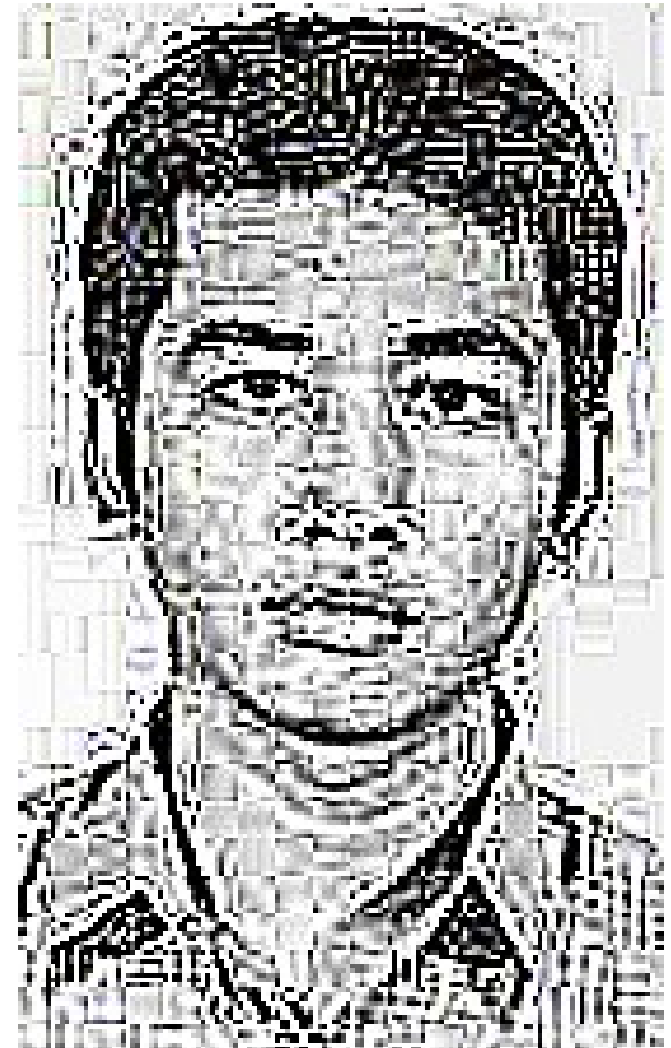# LINUX on Our Campus

Sritrusta Sukaridhoto

Head of Computer Network Lab & EEPIS-ITS Network Team

Tentang aku...

- Seorang pegawai negeri yang berusaha menjadi dosen yang baik,...

- Senang bermain dengan "Linux" sejak 1999 (kuliah sem 5)

- Pengalaman :
  - Mengajar
  - Penelitian
  - Jaringan komputer

Tentang aku ... lagi...

- bergabung dengan EEPIS-ITS tahun 2002

- berkenalan dengan Linux embedded di Tohoku University, Jepang (2003 - 2004)

- "Tukang jaga" lab jaringan komputer (2004 – sekarang)

- Membimbing Tugas Akhir, 25 mahasiswa menggunakan Linux, th 2005 (Rekor)

- Tim "Tukang melototin" Jaringan EEPIS (2002 – sekarang)

- ngurusin server "http://kebo.vlsm.org" (2000 – sekarang)

- Debian GNU/Linux – IP v6 developer (2002)

- GNU Octave developer (2002)

- EEPIS-ITS Goodle Crew (2005 – sekarang)

- Linux – SH4 developer (2004 – sekarang)

- ....

Daftar Isi...

- Linux itu apa ??? (kerupuk...)

- EEPIS-ITS bermain Linux ???,... Ada ???,... bisa,...???

- Linux dan mahasiswa...

- Manfaat Linux

- Bagaimana cara belajar Linux...

- Installasi Linux...

- Perintah dasar Linux...

- Dasar Jaringan Linux...

- X-Windows (GUI) si tampilan grafis...

- Ngetik-ngetik pake apa ya...???

- Linux bisa buat having fun ...???

- Nge-NET dengan Linux...

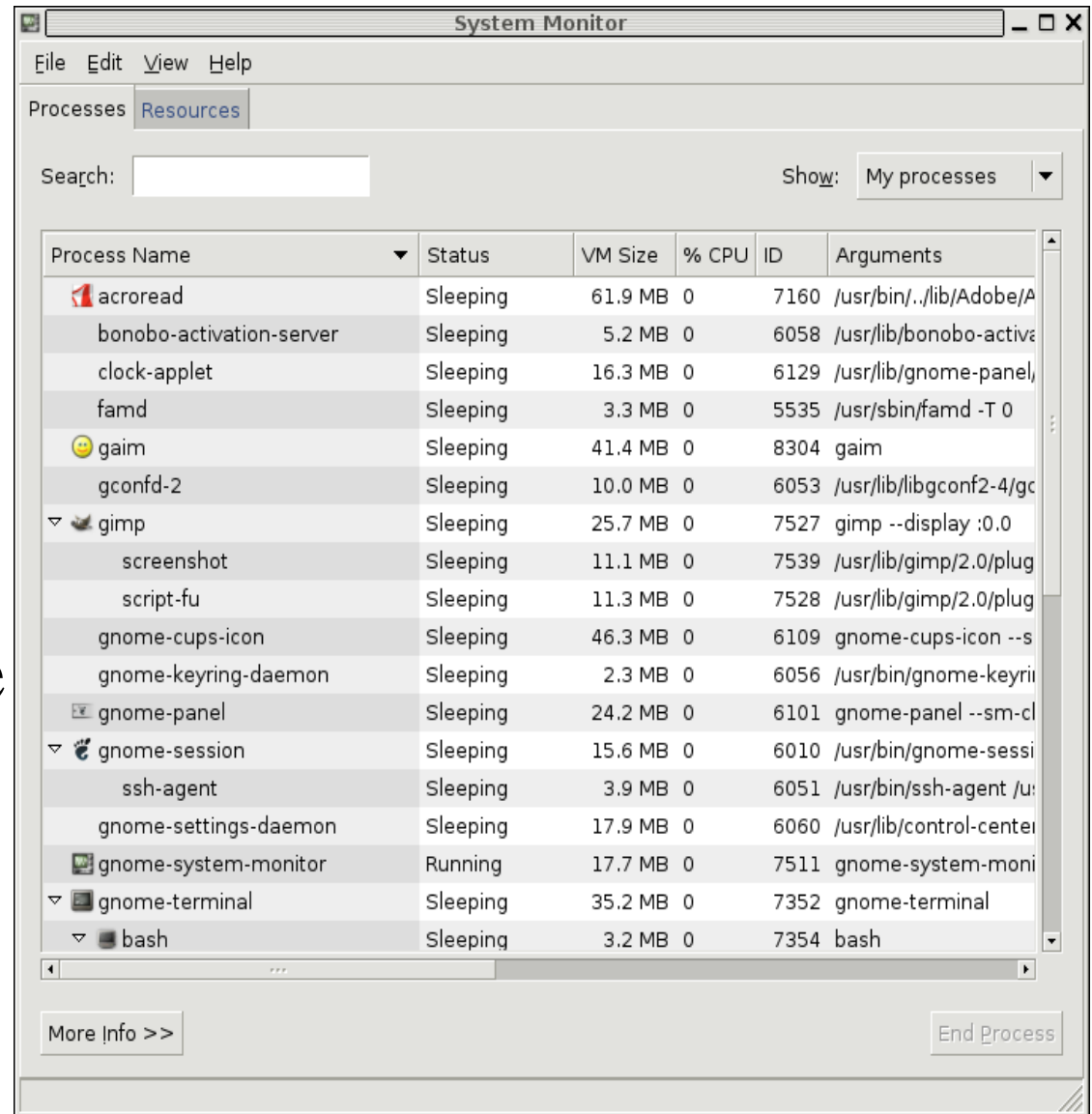# Linux itu apa ??? Kerupuk ya…??

Sistem Operasi

- Linux itu Sistem Operasi di Komputer…

- Tugas :
  - Mengatur Hardware : monitor, drive, mouse, memory
  - Mengatur aplikasi
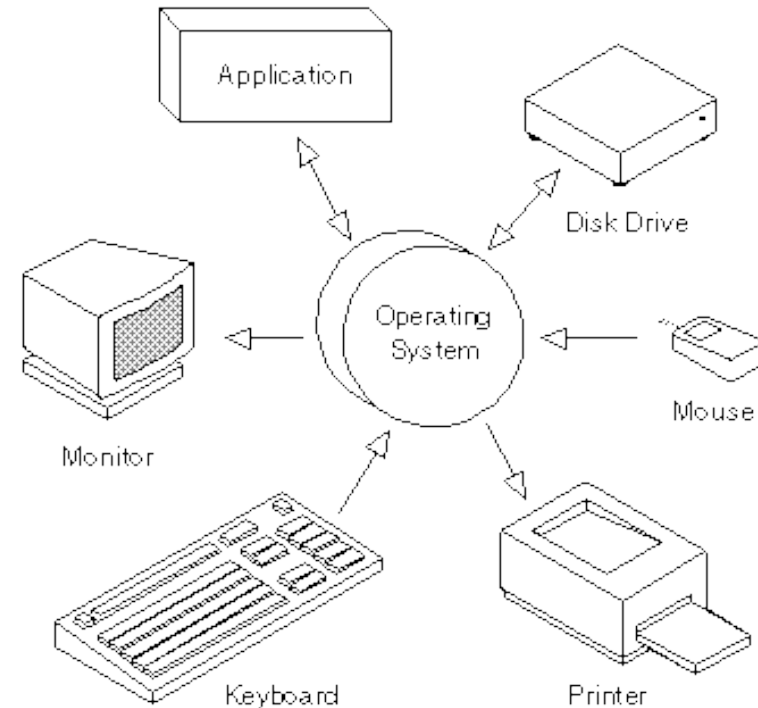
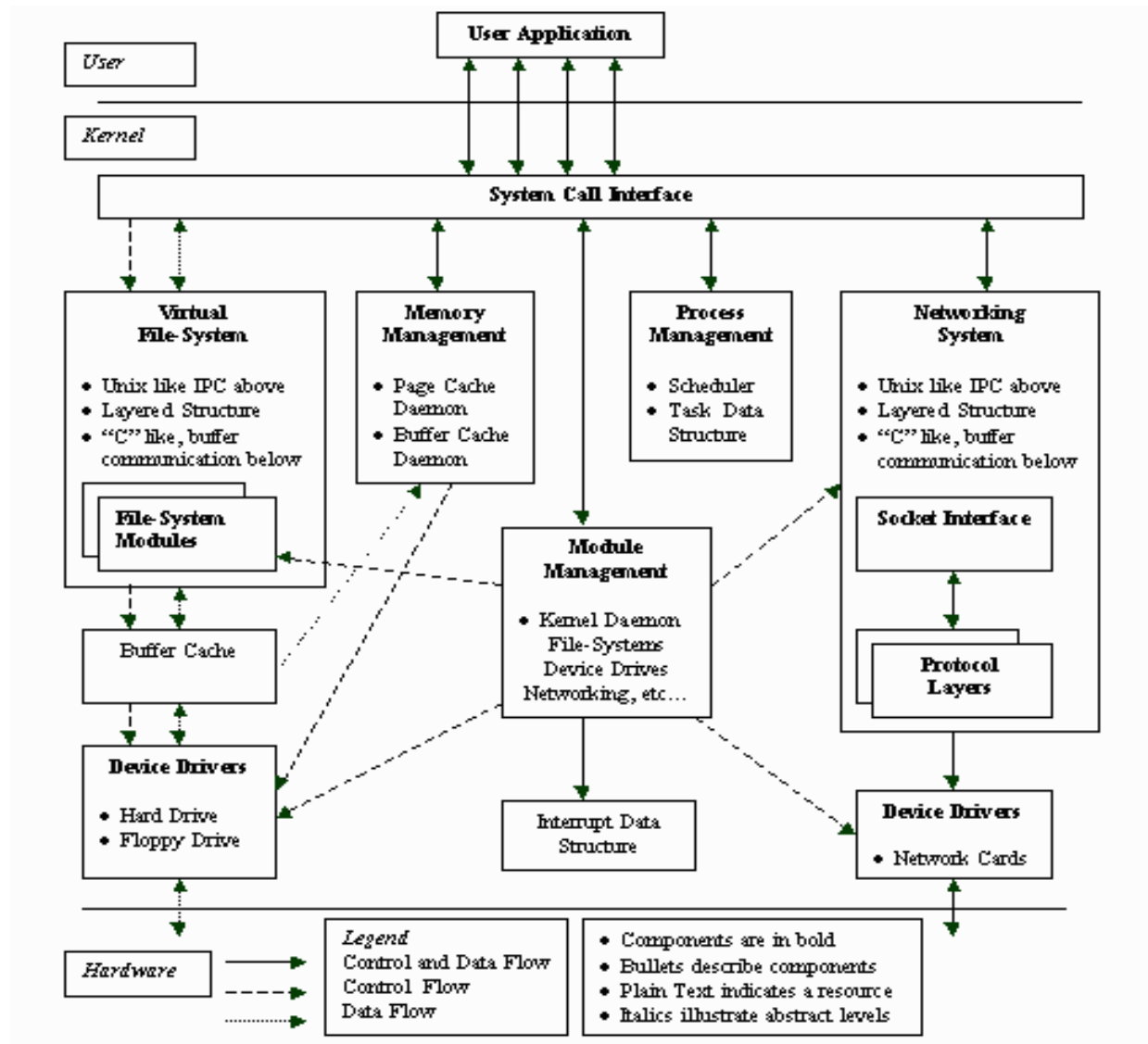# Isinya sistem operasi apa aja...?

- Managemen proses
- Managemen memori
- Proteksi terhadap informasi
- Managemen dan penjadwalan resource
- Struktur file sistem

Linux on Our Campus - EEPIS

Kernel

OS yg modern harus bisa…

- Multithreading ← Thread

- Symmetric multiprocessing

- Multi-tasking

- Multi-user

OS ada apa aja…

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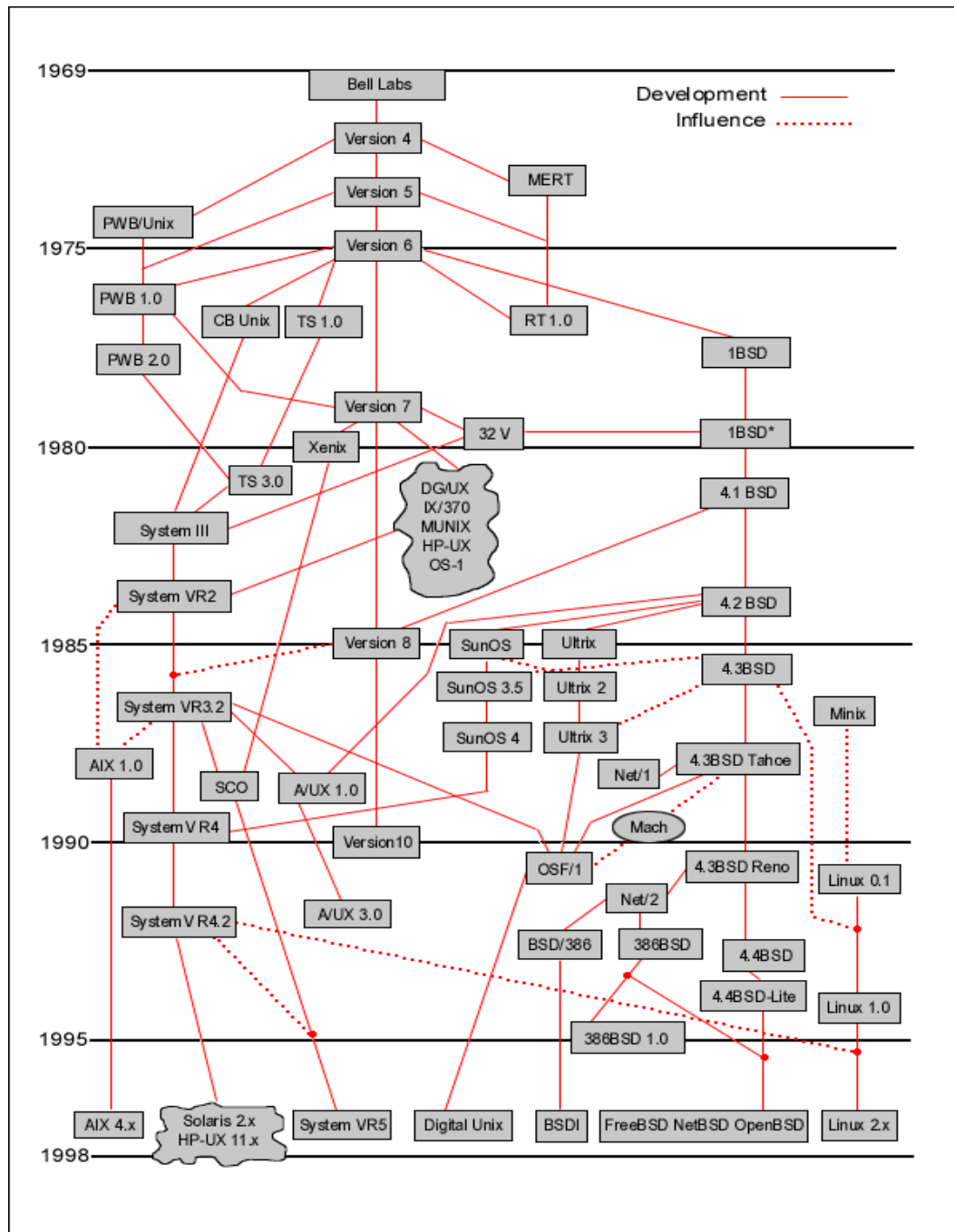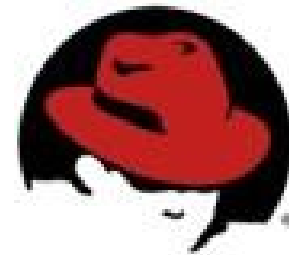
Linux

- Yang membuat **Linus Trovald** (1991)
- Dibuat secara **open-source**
- Dikembangkan oleh banyak komunitas di dunia
- **Gratis**
- Turunan dari **UNIX**
- Punya **DISTRO**

The diagram shows the history and evolution of Unix operating systems from 1969 to 1998, with a legend indicating "Development" (solid red line) and "Influence" (dotted red line).

LINUX vs OS yang lain

- LINUX:
  - Free
  - Multi-tasking dan Multi-user
  - I386 (intel), PPC, Sparc, Alpha, dll
  - Bebas VIRUS

- Yang lain:
  - Unix, windows, apple : **BAYAR**
  - MS-DOS tidak support multi-tasking dan multi-user
  - **<u>MacOS</u>** hanya di Apple computer, **<u>Windows</u>** hanya di Intel, **<u>Solaris</u>** hanya di SPARC, **<u>Unix</u>** hanya di Alpha
  - **Windows** Penyakitan, VIRUS

Distro Linux

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EEPIS-ITS bermain Linux ???,... Ada ???,... bisa,...???

LINUX di EEPIS

- Direktur EEPIS-ITS (Pak Titon) pakai LINUX

- Lab Linux dan buku-buku tentang LINUX

- Training dan workshop tentang LINUX

- Dosen pengajar Linux

- Komunitas yg menggunakan LINUX

  - Goodle crew

  - Open-Source

- Server mirror Linux http://mirror.eepis-its.edu

- Installer Linux

Direktur EEPIS-ITS

- Linux = Debian GNU/Linux

- Progamming = GCC

- Editor = Emacs

- Grafik = GNUPlot

- Digunakan sehari-hari, penelitian, dsb

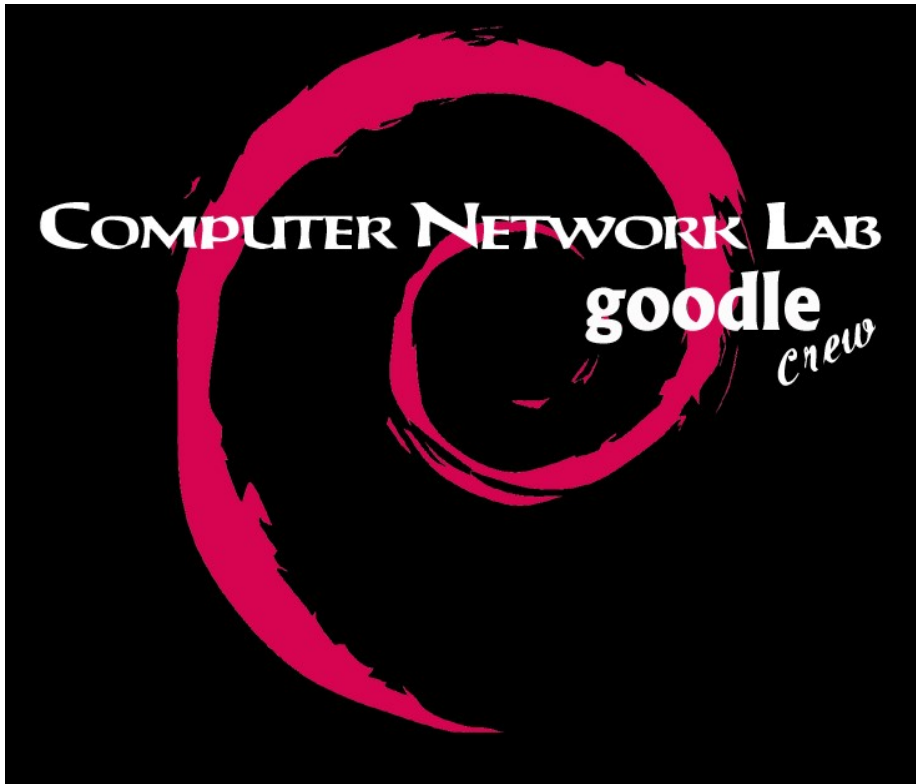 Kalo tidak percaya bisa datang ke ruangannya sekarang !!!

Lab Linux

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Linux dan Mahasiswa

- Praktikum
  - Konsep pemrograman
  - Sistem Operasi
  - Komunikasi data dan Jaringan Komputer
  - GIS
- Tugas Akhir
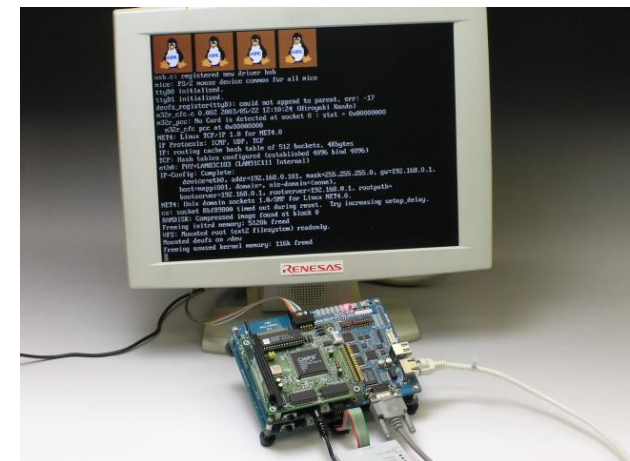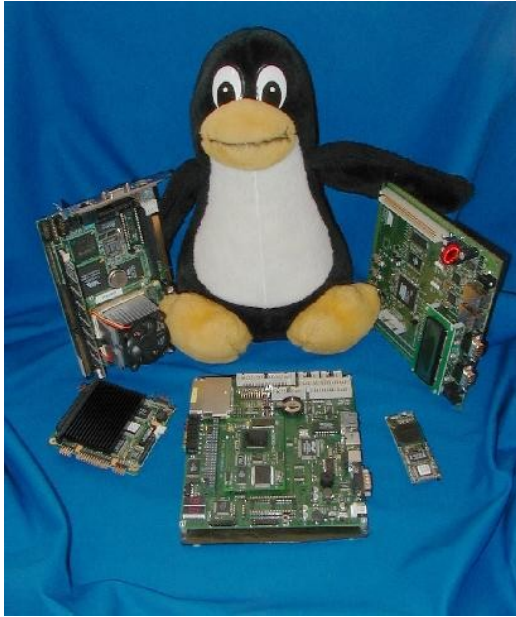- Sehari-hari… ngetik, musik, nonton film dll

Komunitas

- Goodle Crew

- Open-Source

Manfaat Linux

- Server Internet

- Desktop

- Peralatan pengontrol industri

- PDA

- FPGA

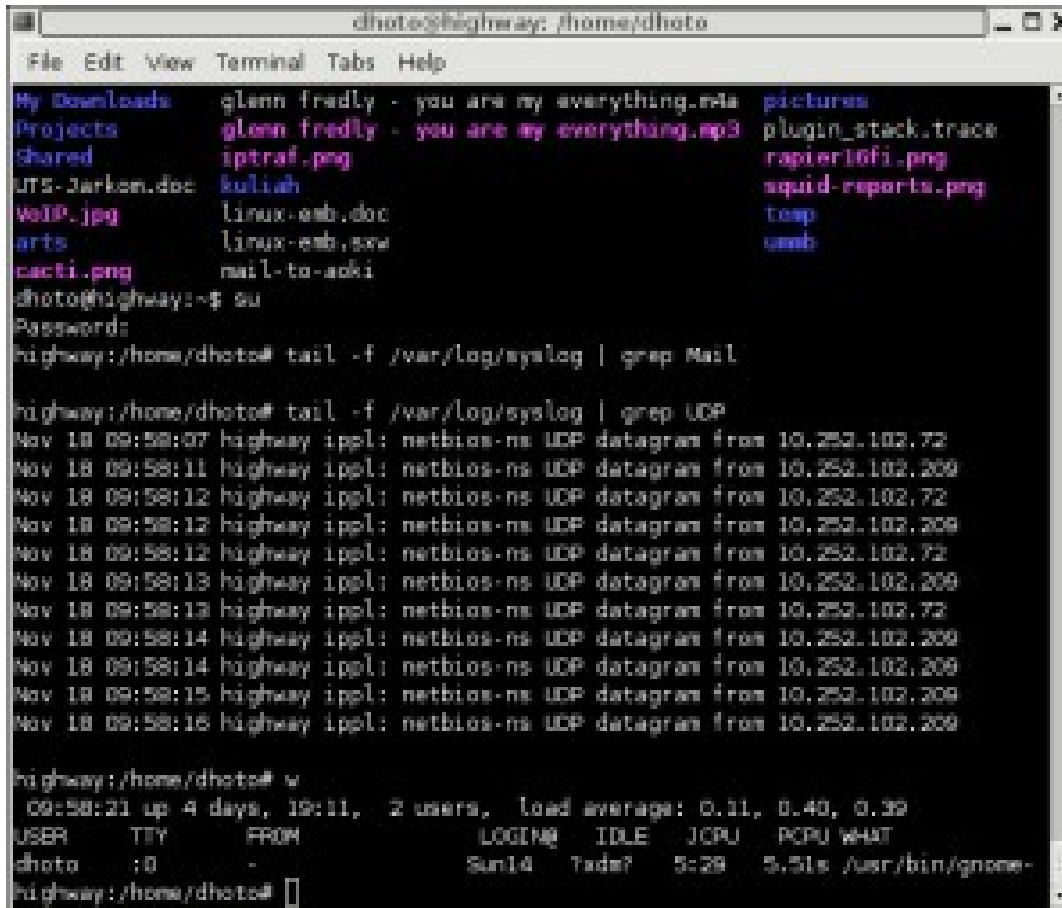- Mobil Otomatis … (lihat berita jawapos)

Manfaat Linux … terusannya

Cara belajar LINUX

- Cari "GURU' yang bener-bener "Sakti Linux"

- Kumpul-kumpul sama yg seneng Linux

- Punya CD-installer Linux

- Komputer … bisa pinjam, di lab, … terserah

- Mau dan suka baca-baca tentang LINUX

- NEKATTTTT !!!

Installasi Linux

- Siapkan komputernya (ketahui HW yg ada)

- Installer Linux (pemilihan distro Linux)

- Jangan asal klik "NEXT" …

- BACA PETUNJUK DGN BENAR !!!

- Jangan lupa backup data terlebih dahulu…

Perintah Dasar

- Perhatikan huruf besar dan kecilnya
- Dgn "TAB" ga perlu ngetik perintah lengkap…
- Man ← manualnya perintah-perintah
- Contoh perintah :
  - Ls, cd, mkdir, cat , grep

Dasar Jaringan Linux

```
                    dhoto@highway: /home/dhoto                _ □ ×
 File  Edit  View  Terminal  Tabs  Help
  09:58:21 up 4 days, 19:11,  2 users,  load average: 0.11, 0.40, 0.39
 USER      TTY       FROM              LOGIN@   IDLE    JCPU    PCPU WHAT
 dhoto     :0        -                 Sun14   ?xdm?   5:29    5.51s /usr/bin/gnome-
 highway:/home/dhoto# cd
 highway:~# ifconfig
 eth0      Link encap:Ethernet  HWaddr 00:0C:F1:BA:38:43
           inet addr:10.252.102.123  Bcast:10.252.102.255  Mask:255.255.255.0
           inet6 addr: fe80::20c:f1ff:feba:3843/64 Scope:Link
           UP BROADCAST RUNNING MULTICAST  MTU:1500  Metric:1
           RX packets:3215163 errors:0 dropped:0 overruns:0 frame:0
           TX packets:1305736 errors:0 dropped:0 overruns:0 carrier:0
           collisions:0 txqueuelen:1000
           RX bytes:815302897 (777.5 MiB)  TX bytes:831802103 (793.2 MiB)

 lo        Link encap:Local Loopback
           inet addr:127.0.0.1  Mask:255.0.0.0
           inet6 addr: ::1/128 Scope:Host
           UP LOOPBACK RUNNING  MTU:16436  Metric:1
           RX packets:8499343 errors:0 dropped:0 overruns:0 frame:0
           TX packets:8499343 errors:0 dropped:0 overruns:0 carrier:0
           collisions:0 txqueuelen:0
           RX bytes:939002093 (895.5 MiB)  TX bytes:939002093 (895.5 MiB)

 highway:~# route -n
 Kernel IP routing table
 Destination     Gateway         Genmask         Flags Metric Ref    Use Iface
 10.252.102.0    0.0.0.0         255.255.255.0   U     0      0        0 eth0
 0.0.0.0         10.252.102.1    0.0.0.0         UG    0      0        0 eth0
 highway:~# []
```

- Ifconfig
  - Melihat IP Address
- Route
  - Melihat dan memodifikasi routing
- Ping
  - Mengecek jaringan

X-Windows

- Core :
  - Xfree86
  - X.org
- Window Manager
  - Gnome
  - KDE
  - Windowmaker
  - XFce
  - Enlightenment
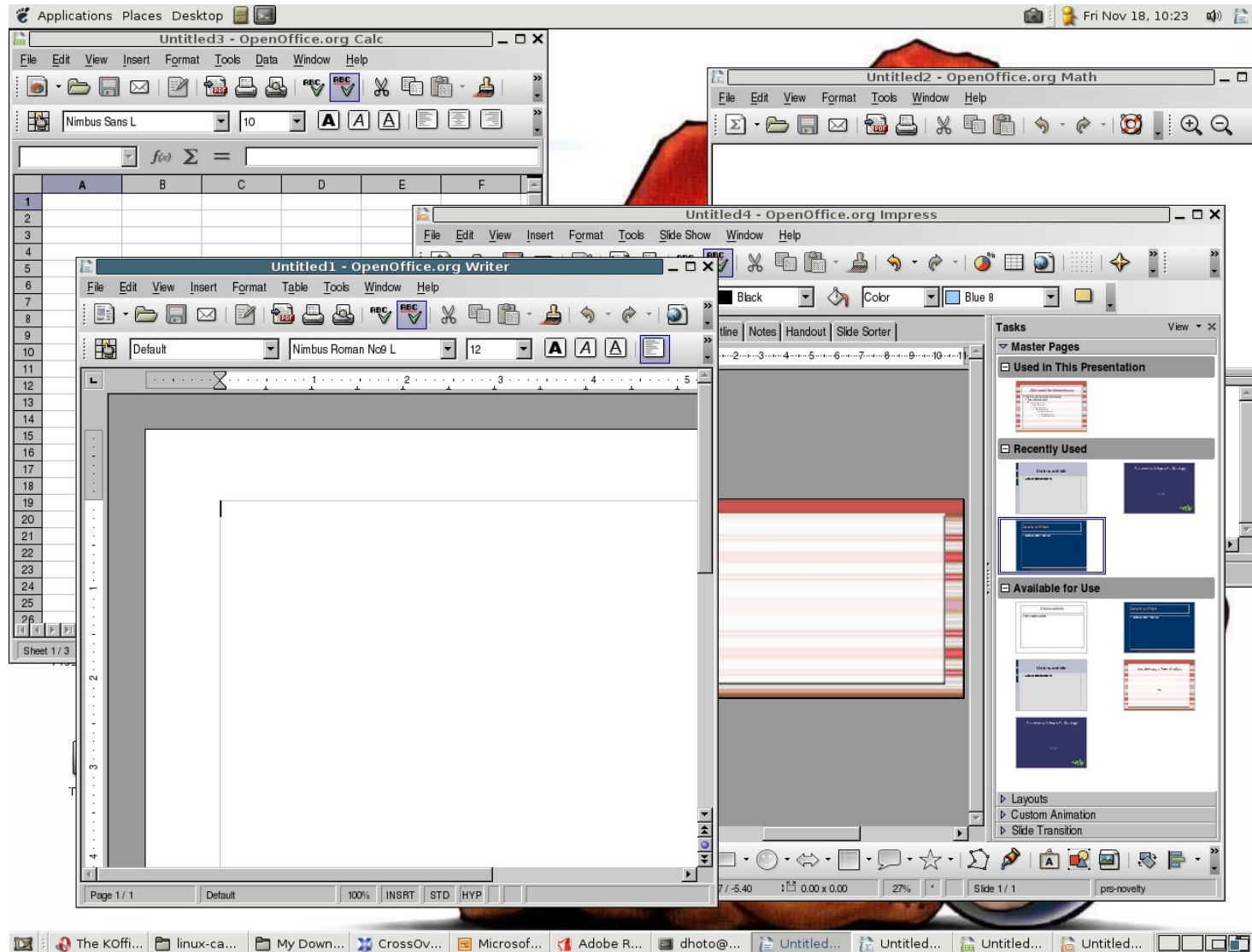 - fwm

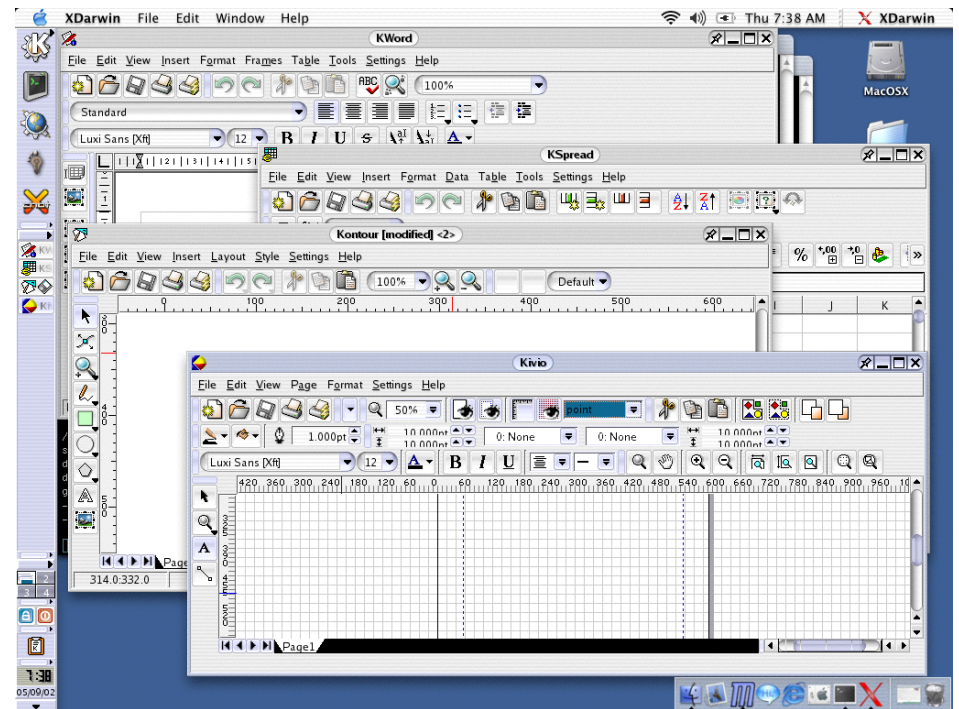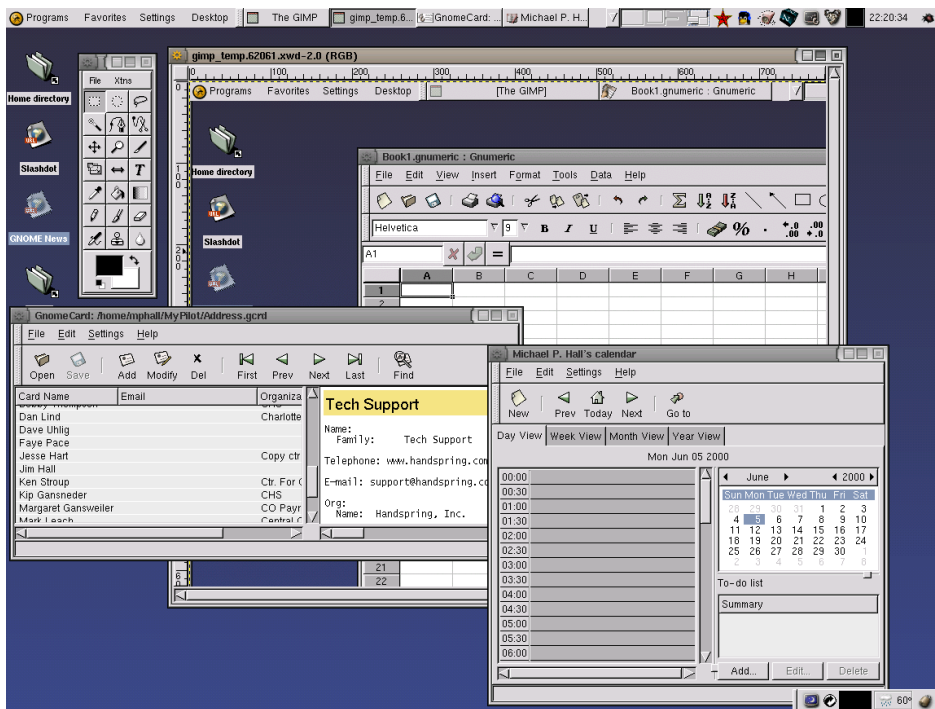# X-window (desktopku)

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Buat ngetik pake …

- OpenOffice.org suite
  - Writer, calc, impress, math, Draw
- Gnome Office
  - Abiword, gnumeric, evolution, dia, gimp
- Koffice
  - Koffice-word, kspread, kpresenter, kexi, kivio
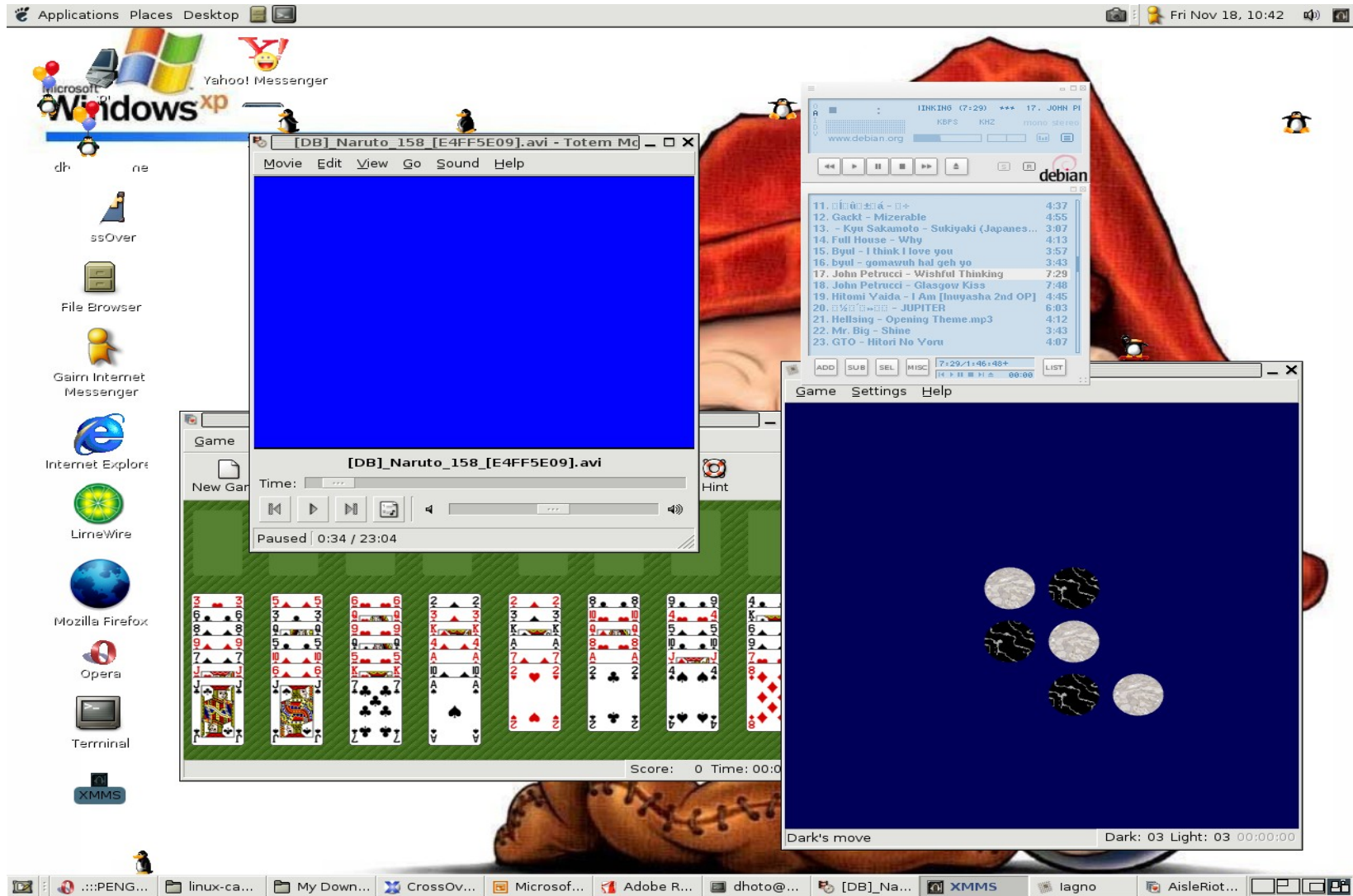- StarOffice
- Latex, vim

OpenOffice.org yg ku pake

Contoh Office-ware

FUN

- Mp3 player

  – Xmms, freeamp, mpg123...

- Nonton film

  – Mplayer, totem, xine, kmplayer

- Games

  – Akeh pollllll....

- Sound (gitar, midi,...)

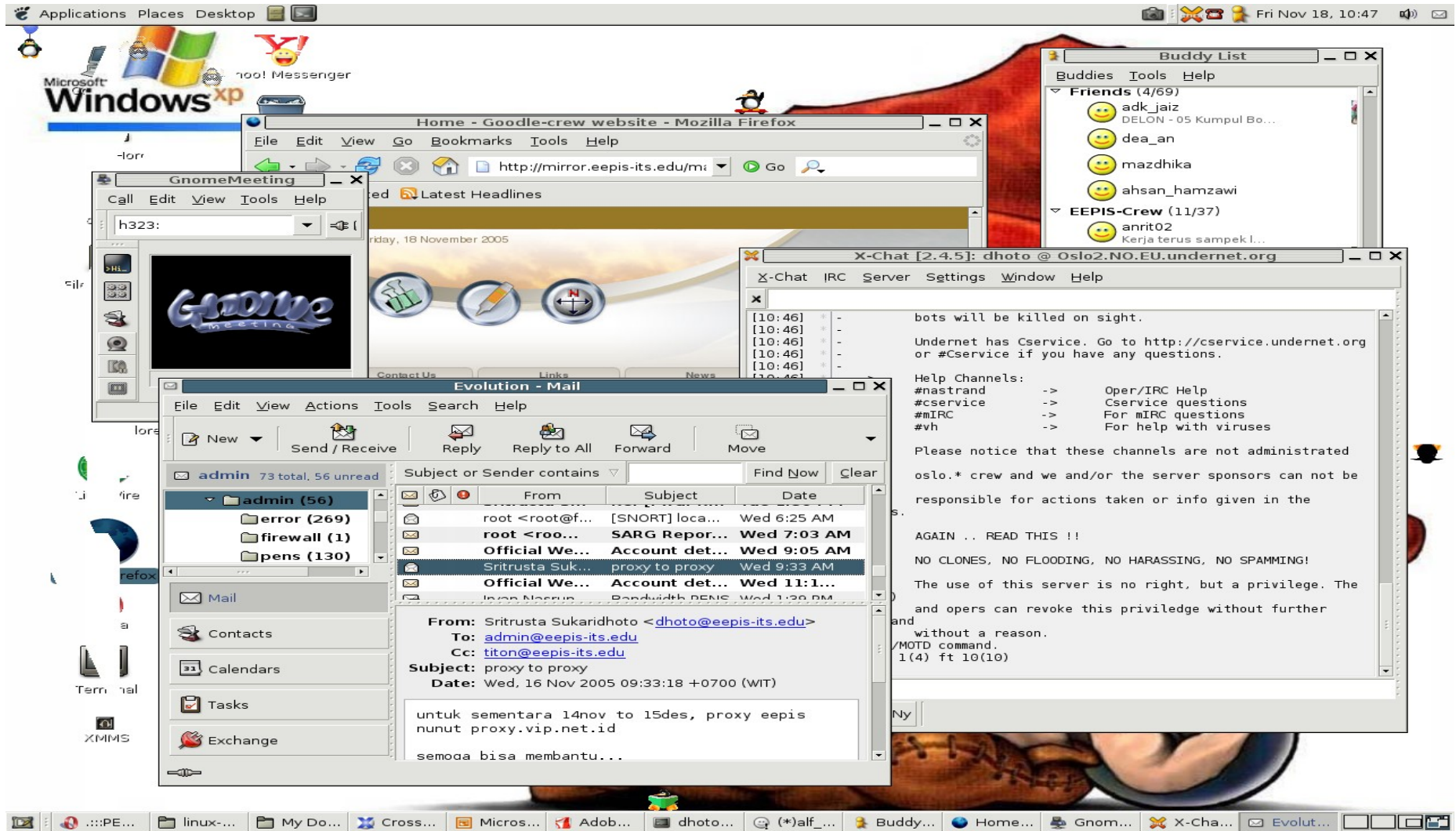 – Gnometab, sequencer,...

Linux having fun

Internet

- Browser

  - firefox, opera, lynx

- Mail

  - evolution, thunderbird

- chat

  - gaim, centericq

- VoIP

  - gnomeeting, speakfreely

Internet

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