

# INTRODUCTION TO LINUX



PRESENTED BY,

**RED HAT**



LINCY JOSE  
JINI VARGHESE  
LIJIN TOM JOHN

# OVERVIEW



- ❧ What is Linux?
- ❧ History of Linux
- ❧ Features Supported Under Linux
- ❧ The features of Linux

# WHAT IS LINUX ?



- ❧ Linux is a generic term referring to Unix-like graphical user interface (GUI) based computer operating systems.
- ❧ It is Multi-user, Multitasking, Multiprocessor
- ❧ Coexists with other Operating Systems
- ❧ Runs on multiple platforms

# BEFORE LINUX



- ❧ In 80's, Microsoft's DOS was the dominated OS for PC
- ❧ Apple MAC was better, but expensive
- ❧ UNIX was much better, but much, much more expensive. Only for minicomputer for commercial applications
- ❧ People was looking for a UNIX based system, which is cheaper and can run on PC

# GNU PROJECT



- Established in 1984 by Richard Stallman
- GNU is a recursive acronym for “GNU's Not Unix”
- Aim at developing a complete Unix-like operating system which is free for copying and modification
- Stallman built the first free GNU C Compiler in 1991. But still, an OS was yet to be developed

# BEGINNING OF LINUX



- ❧ A famous professor Andrew Tanenbaum developed Minix, a simplified version of UNIX that runs on PC
- ❧ Minix is for class teaching only. No intention for commercial use
- ❧ In Sept 1991, Linus Torvalds, a second year student of Computer Science at the University of Helsinki, developed the preliminary kernel of Linux, known as Linux version 0.0.1

# LINUX TODAY



- Linux has been used for many computing platforms
- PC, Supercomputer
- Commercial vendors moved in Linux itself to provide freely distributed code. They make their money by compiling up various software and gathering them in a distributable format
- Red Hat, Slackware, etc
- About 29 million people use Linux worldwide

# LINUX-FREE SOFTWARE



- Free software, as defined by the FSF (Free Software Foundation), is a "matter of liberty, not price." To qualify as free software by FSF standards, you must be able to:
- Run the program for any purpose you want to, rather than be restricted in what you can use it for.
- Share the program with others.
- Improve the program and release those improvements so that others can use them.



# LINUX SOFTWARES



- ❧ **Red Hat Linux** : One of the original Linux distribution.
- ❧ The commercial, nonfree version is **Red Hat Enterprise Linux**, which is aimed at big companies using Linux servers and desktops in a big way
- ❧ **Debian GNU/Linux** : A free software distribution. Popular for use on servers
- ❧ **Gentoo Linux** : Gentoo is a specialty distribution meant for programmers



# UBUNTU

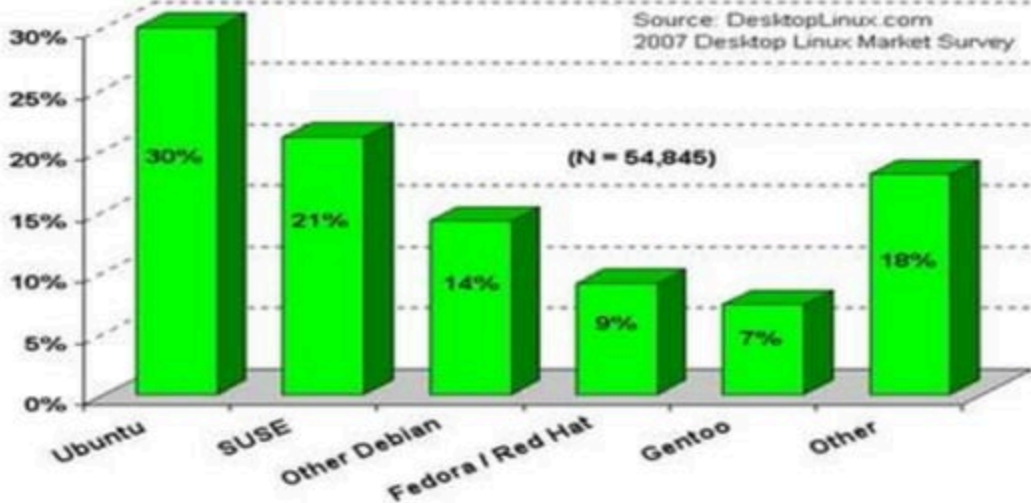


- ❧ Ubuntu is a free Linux distros
- ❧ Ubuntu is reliable and stable.
- ❧ Ubuntu is the distribution with the biggest software repositories.
- ❧ Ubuntu has a good hardware support for most available companies.
- ❧ Ubuntu have a lot of variants (Kubuntu, Xubuntu, Edubuntu, Goubuntu, MIDI Ubuntu).



# Ubuntu is Widely Used

Desktop Linux Distributions







Computer



User's Home



Trash

## Default Fedora Desktop

The default desktop has three distinct areas.

From top to bottom, the areas are:

The *menu panel*

The *desktop area*

The *window list panel*

# MENU PANEL



10:17 AM

**Applications** - The Applications menu contains a variety of icons that start software applications. It is similar to the Microsoft **Windows Start menu**.

**Places** - The Places menu contains a customizable list of directories, mounted volumes, recent documents, and a Search function. Volumes that are mounted may be external USB drives (flash, hard disk, CD, etc.), directories shared across a network, or other media devices such as a portable music player.

# SYSTEM MENU



Log Out

About


Help

Lock Screen

Preferences




❧ **Mozilla Firefox** web browser 

❧ **OpenOffice.org Writer** is a word processing program 

❧ **OpenOffice.org Impress** is for creating and giving presentations 

❧ **OpenOffice.org Calc** is a spreadsheet tool 

❧ **Evolution** mail client and personal information manager 



# THE DESKTOP AREA

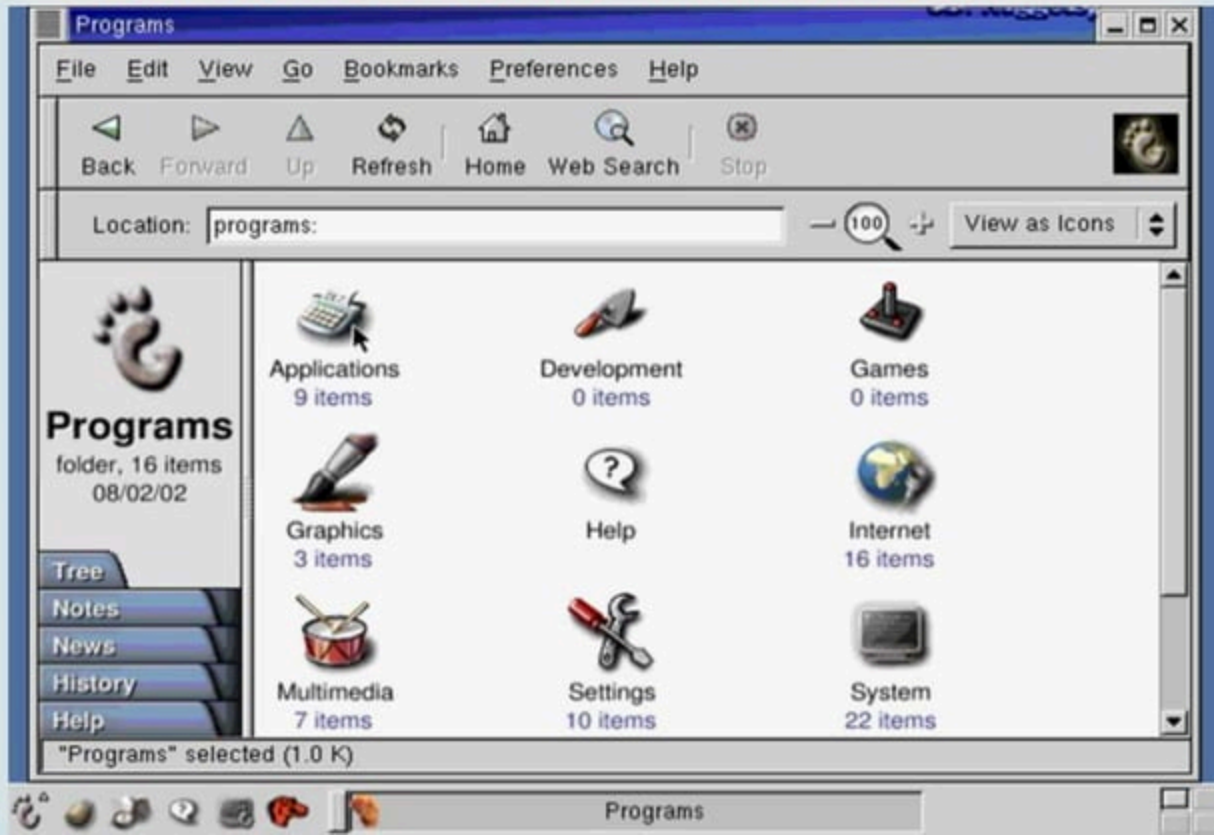


- ❧ **Computer** - This contains all volumes (or disks) mounted on the computer. These are also listed in the Places menu. Computer is equivalent to **My Computer** on Microsoft Windows.
- ❧ **Home** - This is where the logged-in user stores all files by default, such as music, movies, and documents. There is a different home directory for each user, and by default users cannot access each others' home directories. Home is equivalent to **My Documents** on Microsoft Windows.
- ❧ **Trash** - Deleted files are moved to Trash. Empty Trash by right-clicking the icon and clicking Empty Trash

# START HERE



# PROGRAM WINDOW



# APPLICATION WINDOW



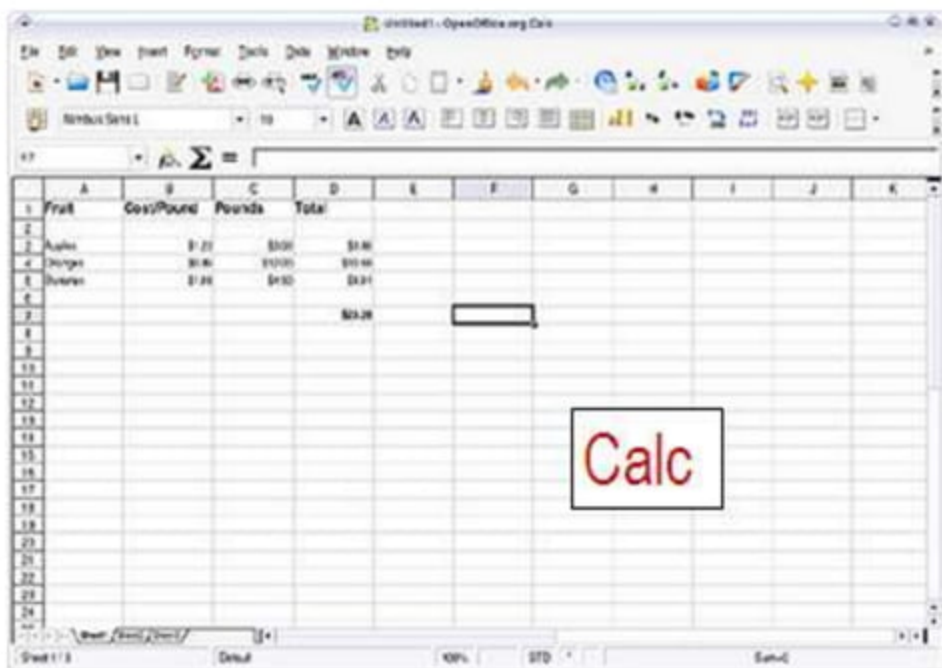
# CONTROL CENTRE

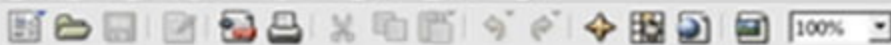


# OFFICE SOFTWARE

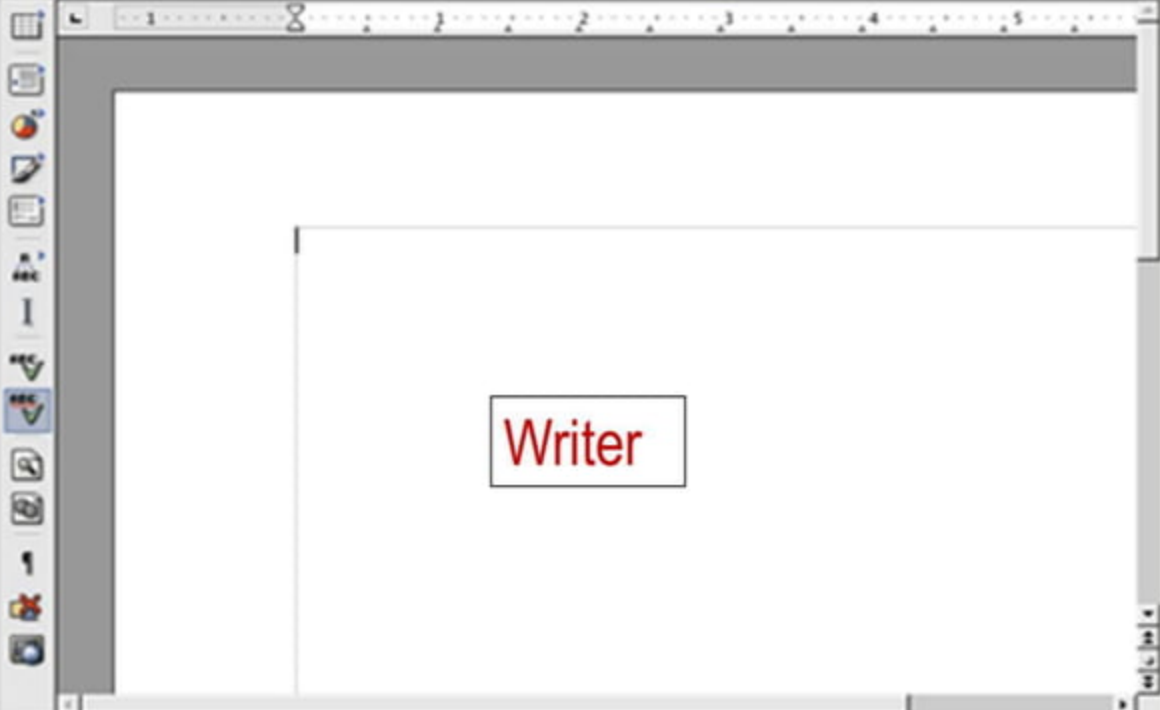


- Word processor
- Spreadsheet
- Presentation
- Database application





Default Nimbus Roman Nc 12





# WEB BROWSER



 Firefox

[Web](#) [Images](#) [Groups](#) [News](#) [Local](#) [more...](#) Search:  the web  pages from Canada[Advanced Search](#)  
[Preferences](#)  
[Language Tools](#)Google.ca offered in: [Français](#)[Advertising Programs](#) - [Business Solutions](#) - [About Google](#) - [Go to Google.com](#)

©2006 Google

# OTHER SOFTWARES



- ❧ **Audio Player: The XMMS** (X Multimedia System), which is used to play digital sound files
- ❧ **CD Player:** The default CD player
- ❧ **Sound Juicer CD Ripper:** Burn your own CDs
- ❧ **Messaging Client:** GAIM supports AIM, MSN, ICQ, and many other popular IM networks
- ❧ **gFTP:** Useful for grabbing files through FTP (File Transfer Protocol)

# WHY LINUX?



## ❧ Powerful

- ❧ Runs on multiple hardware platforms
- ❧ Users like its speed and stability
- ❧ No requirement for latest hardware
- ❧ **It's "free"**
- ❧ Licensed under GPL
- ❧ Vendors are distributors who package Linux



## ❧ **Multi-user**

- ❧ A multi-user operating system allows for multiple users to use the same computer at the same time and/or different times.

## ❧ **Multiprocessing**

- ❧ An operating system capable of supporting and utilizing more than one computer processor



## ❧ Multitasking

- ❧ An operating system that is capable of allowing multiple software processes to run at the same time

## ❧ Multithreading

- ❧ Operating systems that allow different parts of a software program to run concurrently.

# Open Source Software



- ☞ People improve it, people adapt it, people fix bugs.
  - And this can happen at a speed that, compared to conventional software development, seems astonishing



# Linux Provide Security

MR. TUX

MR. SWAN

# BIB

BIRDS IN BLACK



**PROTECTING COMPUTERS  
FROM THE SCUM OF  
THE UNIVERSE**

**Linux.conf.au 2003**

PERTH

WESTERN AUSTRALIA

**<http://conf.linux.org.au/>**

- As there is a limited access
- Of user to basic files and folders, in Linux network it provide security to user's privacy. Without disclosing the secured data Linux acts as a efficient server



# Linux is Virus Free!!



Linux is "virus-free" in that there are essentially no viruses for Linux in the wild, although research viruses certainly do exist.

# Linux Vs Windows



# Linux is Cheaper





## ❧ Keeping up to date

- ❧ By Upgrading
- ❧ Linux upgrades faster than Windows

## ❧ Compatibility

- ❧ Linux is Backward Compatible unlike Windows

# ADVANTAGES OF LINUX



- ❧ Linux systems are extremely stable
- ❧ Linux is Free
- ❧ No threat of viruses
- ❧ Linux comes with most of the required software pre-installed
- ❧ Update all your software with minimum fuss
- ❧ Linux never gets slow
- ❧ Linux does not need defragmentation
- ❧ Linux can even run on oldest hardware
- ❧ Adding more software is a matter of a few clicks
- ❧ Most Windows-only apps have their either their native version or alternatives for Linux
- ❧ With Linux, you get the highest degree of possible customizability

