

Linux is Like Cars



Linux is Like Cars

Presentation by:

John Kennedy, Co-Leader

Linux Help Desk

East-Central Ohio Technology Users Club
(ECOTUC)

Newark, Ohio

Linux is Like Cars

Also wears the hat as:

John Kennedy, Advisor
APCUG Region 6/7

Member of
APCUG Speaker's Bureau

Linux is Like Cars

Welcome to the
Linux Showroom

Why So Many?

F.O.S.S.

Free and Open Source Software

Someone's Potluck Dish:

Have the “dish”, making it available to others (free).

Have the recipe (source and open), to do what you want with it.

This is how Linux operates, everything about it is open to everyone to do what they wish.

Linux is Like Cars

What I would like to cover:

Comparisons

- Engine vs. Kernel
- Manufacturers vs. Distributors
- Body Styles vs. Desktop Environments
- Auto Parts vs Software Packages
- Taking it for a “test drive”
- Which Car/Linux is Best

Engine Inventors

-the engine is a device that manages input/output (gas goes in, power comes out)
actions

The Original Players:

- 1870 – Siegfried Marcus
- 1886 – Benz/Daimler

Kernel Inventors

-the kernel is a computer program that manages input/output requests from software

The Original Player:

- 1991 – Linus Torvalds

Auto Builders

The Original Cars:

- Duryea Motor Wagon
- Olds
- Ramblers
- Ford
- Cadillac

Linux Systems

The Original Systems:

- 1993 – Slackware
- 1993 – Debian
- 1994 – Red Hat

Win3.0 - 1990

Linux Systems

Additional Systems:

- 1999 – Gentoo
- 2001 – Arch

Auto Manufacturers

The Modern Players:

- General Motors
- Ford
- Chrysler

Auto Manufacturers

The Modern Players:

- Honda
- Toyota
- Nissan

Linux Families

The Recipe Starters:

- Slackware
- Debian
- Red Hat

Linux Families

The Recipe Starters:

- Gentoo
- Arch

Divisions

Each major car manufacturer has multiple divisions where the different “lines” offer additional features (at a cost) or features a special design-style for different buyers.

Some of these divisions have disappeared as finances or needs arise.

Divisions

- General Motors
- Chevy, Pontiac, Olds, Buick, Cadillac
- Ford
- Ford, Mercury, Lincoln
- Chrysler
- Dodge, Plymouth, Chrysler

Divisions

- Honda
- Honda, Acura
- Toyota
- Toyota, Lexus
- Nissan
- Datsun, Nissan, Infiniti

Distributions (Distros)

Each major operating system developer has multiple offerings where the different “lines” offer different looking desktop environments or different hardware specifications for different types of computes.

Some of these “lines” have disappeared as interest in them (both users and developers) changes.

Variations

- Slackware
- SuSE, OpenSuSE
- Debian
- Knoppix, Ubuntu, Mint
- Red Hat
- Fedora, RHEL, Mandrake/Mandriva

Variations

- Arch
- Chakra, Manjaro
- Gentoo
- many individual branches

Body Styles

- Sub-compact
- Economy
- Compact
- Standard
- Full
- Van/Station Wagon
- Luxury
- SUV

Desktop Environments

- KDE
- Gnome
- Xfce
- LXDE
- Trinity
- Unity
- Mate
- Cinnamon

Linux is like Cars

Let's take a walk around the
showroom.

The Different DE's

The different Desktop Environments (DE) were created for different hardware needs and different user needs. Some of the DE's (KDE and Gnome) require higher specs than some of the others (Xfce and LXDE).

The Different DE's

Some of the DE's have lots of bells and whistles, while others are very simple and basics. All of them do pretty much the same thing (like all the different kinds of cars). But Linux is more adaptable to the users needs and limits of their computer hardware.

CDE – v.1: 1993



Win3



Manage



5



August



Terminal



Property



Help

File Manager - Ananke:ROOT

File Selected View Help

bin

export

mnt

sbin

boot

h

ne

tn

cdro

34 Items 9 Hid

Application Manager - Desktop_Apps

File Selected View Help

Man Page Viewer

Netscape

Netscape Composer

Netscape Mail

Netscape News

PDASync

Print Manager

Process Manager

Style Manager

Terminal

Text Editor

Files

Install Icon

Home Folder

Removable Media Manager

Open Floppy

Links

Install Icon

Web Browser

Personal Bookmarks

Find Web Page

Inv	Hyp	e^x	10^x
y^x	x!	Cos	Sin
Tan	Ln	Log	Rand
1/x	x^2	Sqrt	%
()	Bsp	Clr
D	E	F	+/-
A	B	C	X
7	8	9	/
4	5	6	-
1	2	3	+
0	.	=	Quit







One

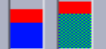
Two

Three

Four

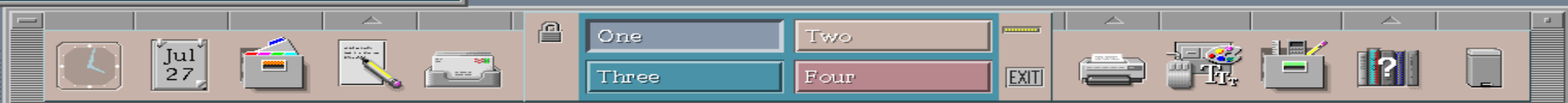
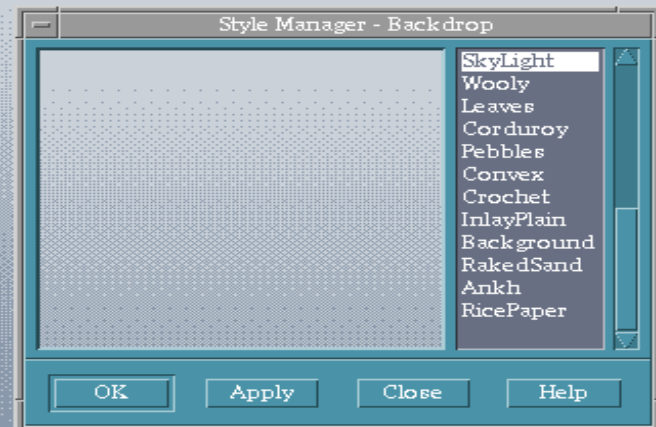
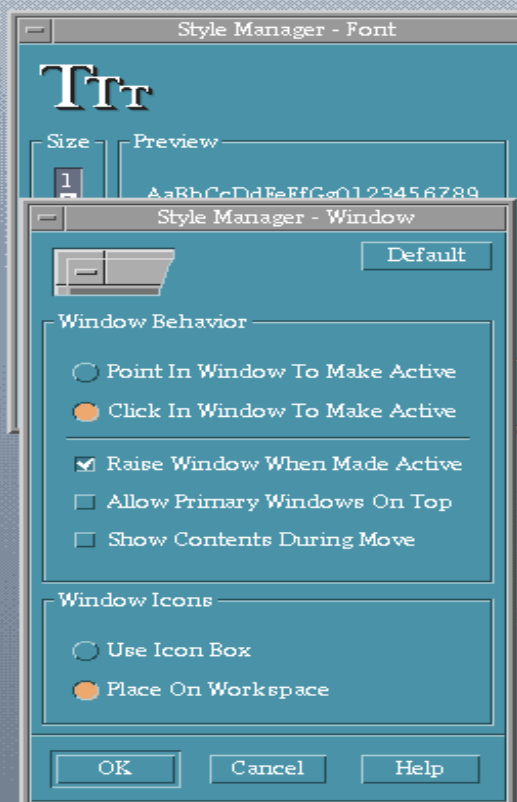
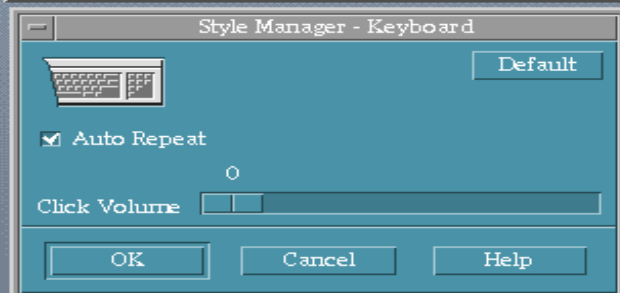
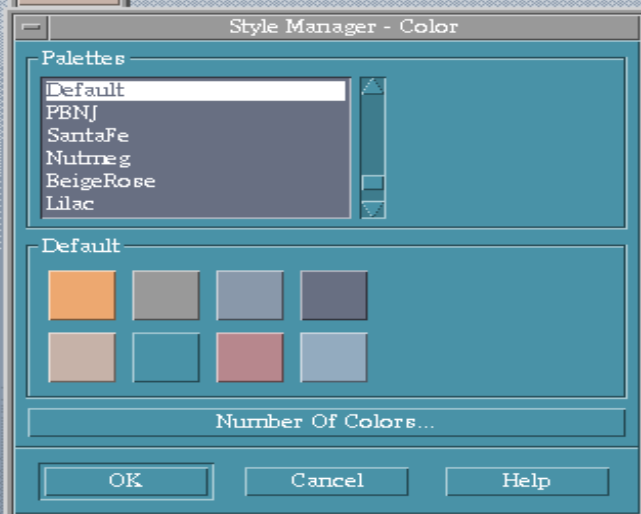
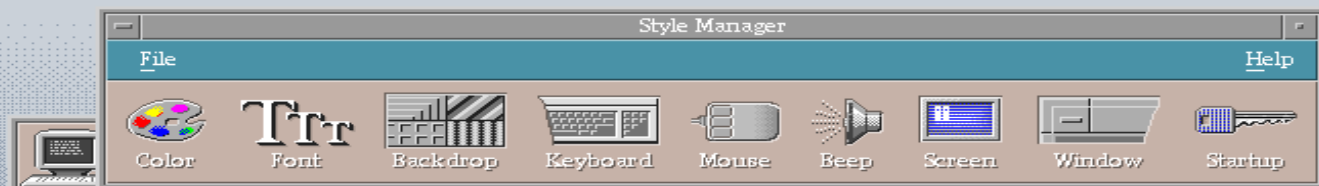
EXIT




CDE – v2.2.4: 2016





Xfce* – v1: 1996



Win95







Xfce – v2: 1998



Desktop - File Manager

File Edit View Go Help



/home/tecmint/Desktop/

DEVICES

File System

PLACES

tecmint

Desktop

Trash

Documents

Music

Pictures


Videos

Downloads


/ on

NETWORK

Browse Network



ELGG-Features.odt



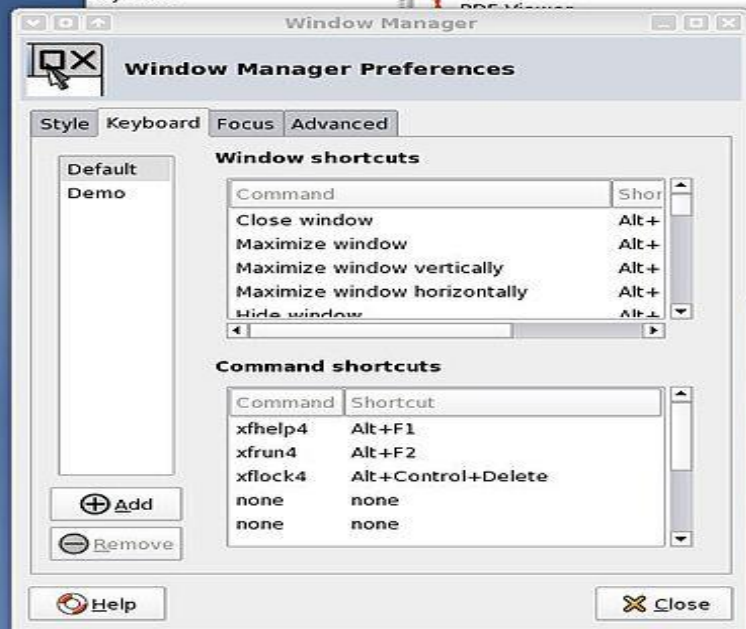
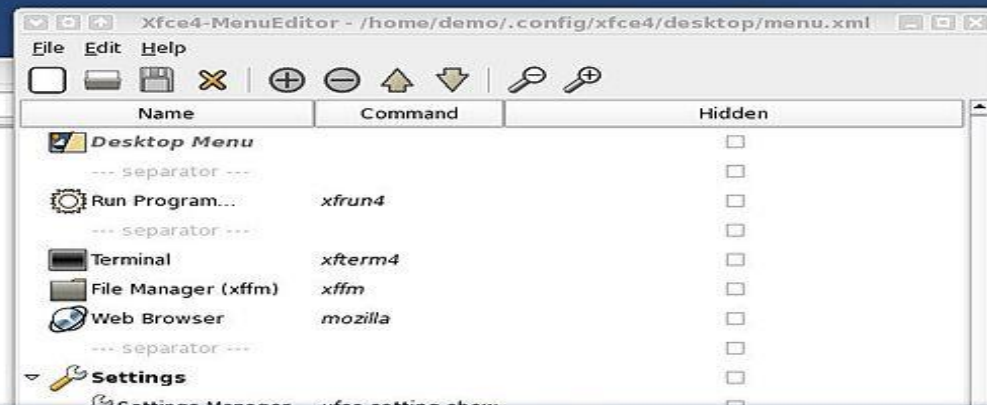
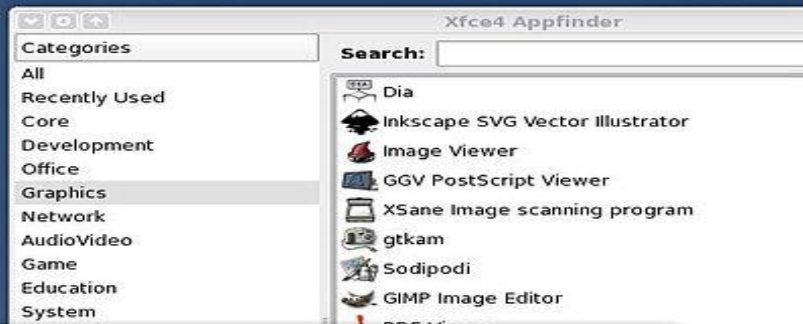
training.odt

2 items (59.5 kB), Free space: 103.8 GB



Xfce – v3: 1999





Xfce – v4.x: 2003+



- nick
- Trash
- File System
- downloads
- goodies
- images
- music
- projects
- scripts
- welcomes

- archieff
- backups
- docs
- downloads
- glade
- goodies
- images
- music
- scripts
- websites
- musophobia.log

12 items (48.1 kB), Free space: 60.9 GB

This is xfwm4 version 4.4.0 (revision 24685) for Xfce 4.4.0
Released under the terms of the GNU General Public License.
Compiled against GTK+-2.10.6, using GTK+-2.10.6.

Build configuration and supported features:

- Startup notification support:

- XSync support:

- Render support:

- Xrandr support:

- Embedded compositor:

- KDE systray proxy (deprecated):

Yes
Yes
Yes
Yes
Yes
No

Desktop Environment

...and everything goes faster!

Home About Projects Download Documentation Community Development

About Xfce

Xfce is a lightweight desktop environment for various *NIX systems. Designed for productivity, it loads and executes applications fast, while conserving system resources.

Xfce 4.4 embodies the traditional UNIX philosophy of modularity and re-usability. It consists of a number of components that together provide the full functionality of the desktop environment. They are packaged separately and you can pick and choose from the available packages to create the best personal working environment.

[learn more](#)

Download Xfce 4.4

[ChangeLogs](#) | [Tour](#)

Settings Manager

- Menu Editor
- NVIDIA settings
- Autostarted Applications

Terminal
File Manager
Settings

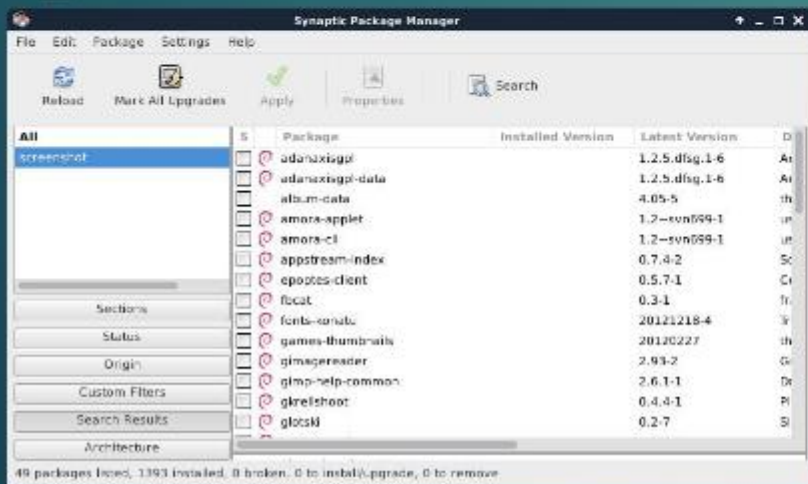
- Accessoires
- Development
- Graphics
- Multimedia
- Network

Quit

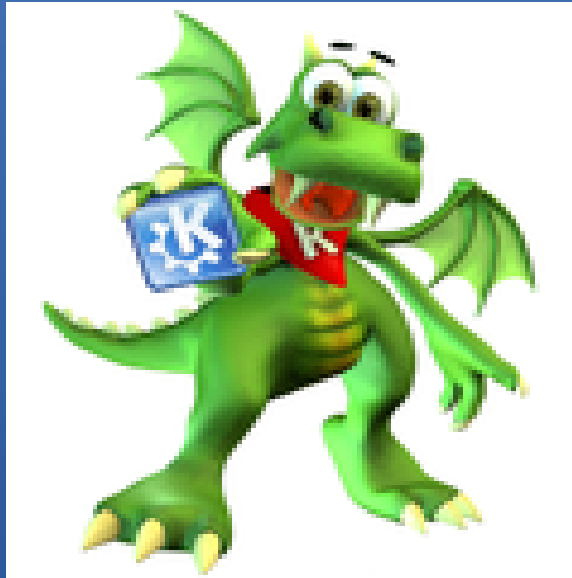
Done

Xfce – v4.12: 2015





KDE – v.1: 1998-99



Win98



Trash



Templates



Autostart



CDROM



FLOPPY



HOME



RPMmanager



XKILL



One

Three



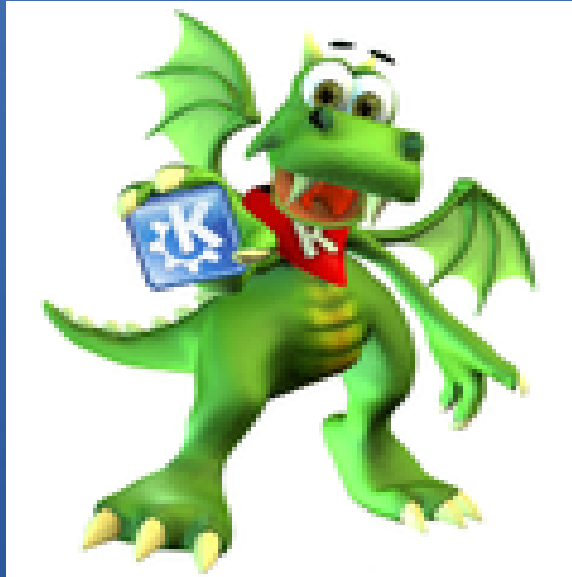
Two

Four



22:51
Mar 06

KDE – v.2: 2000-01





- Editors ▶
 - Internet ▶
 - Preferences ▶
 - System ▶
 - Toys ▶
 - Utilities ▶
 - Control Center ▶
 - Help ▶
 - Home Directory ▶
 - Bookmarks ▶
 - Recent Documents ▶
 - Quick Browser ▶
 - Run Command...
 - Configure Panel ▶
 - Lock Screen
 - Logout
- File Browsing ▶
 - Information ▶
 - Look & Feel ▶
 - Network ▶
 - Peripherals ▶
 - Personalization ▶
 - Power Control ▶
 - Sound ▶
 - System ▶
 - Web Browsing ▶

Conquer your Desktop! - Konqueror

Location Edit View Go Bookmarks Tools Settings Window Help

Location

↑↑↑ Please enter a term or an address to be searched on the Internet.

Konqueror

[Introduction](#) | [Tips](#) | [Specifications](#)

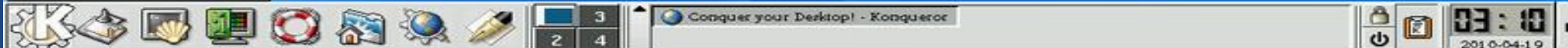
Introduction

Welcome to Konqueror 2.2.2.

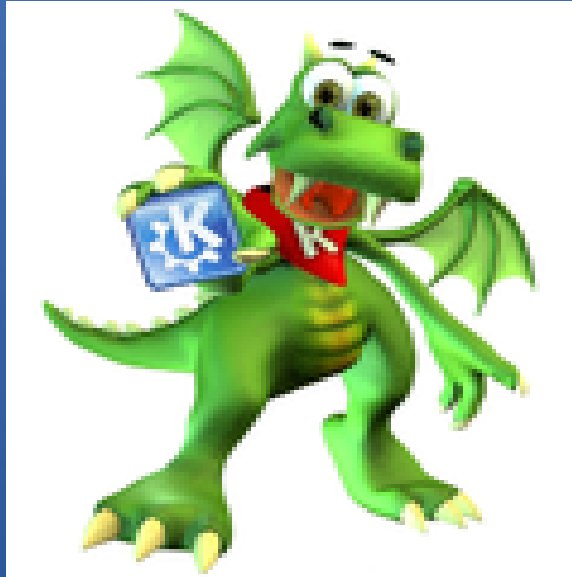
With Konqueror you have your filesystem at your command, browsing local or networked drives with equal ease. Thanks to the component technology used throughout KDE 2, Konqueror is also a full featured, easy to use and comfortable Web Browser, which you can use to explore the Internet.

Simply enter the Internet address (e.g. <http://www.kde.org>) of the web page you want and press Enter, or choose one of the entries in your Bookmarks menu. If you want to go back to the previous web page, press the button ("Back") in the toolbar. To go back to the home directory of your local filesystem press ("Home"). For more detailed documentation on Konqueror click [here](#).

Tuning Tip: If you want the Konqueror web browser to start faster, you can turn off this information screen by clicking [here](#). You can re-enable it by choosing the Help -> Konqueror Introduction menu option, and then pressing Window -> Save View Profile "Web Browsing".



KDE – v.3: 2002-08



Trash

CD/DVD-ROM Device

Floppy Device

Home

- Development
- Editors
- Edutainment
- Games
- Graphics
- Internet
- Multimedia
- Office
 - KOffice Workspace (Office Suite)
 - KWord (Word Processing)
 - KSpread (Spreadsheets)
 - KPresenter (Slide Presentations)
 - KChart (Chart)
 - KFormula (Formula Editor)
 - KThesaurus (Related words)
 - Karbon14 (Scalable Graphics)
 - Kivio (Flowcharting and Diagramming)
 - Kontour (Drawings)
 - Kugar (Report Generator)
 - Netscape Addressbook
- Preferences
- System
- Toys
- Utilities
- Control Center
- Find Files
- Help
- Home (Personal Files)
- Bookmarks
- Recent Documents
- Quick Browser
- Run Command...
- Configure Panel
- Lock Screen
- Logout

Conquer your Desktop! - Konqueror

Location Edit View Go Bookmarks Tools Settings Window Help

Location: aboutkonqueror

ECMA-262 Edition 3 (roughly equals JavaScript 1.5)

JavaScript enabled (globally). Configure JavaScript here.

Secure Java[®] support

- JDK 1.2.0 (Java 2) compatible VM (Blackdown, IBM or Sun)
- Enable Java (globally) here.

Netscape Communicator[®] plugins (for viewing Flash, RealAudio, RealVideo, etc.)

OSF/Motif[®]-compatible library (Open Motif or LessTif)

Secure Sockets Layer (TLS/SSL v2/3) for secure communications up to 168bit

OpenSSL

Bidirectional 16bit unicode support

built-in

AutoCompletion for forms

built-in

GENERAL

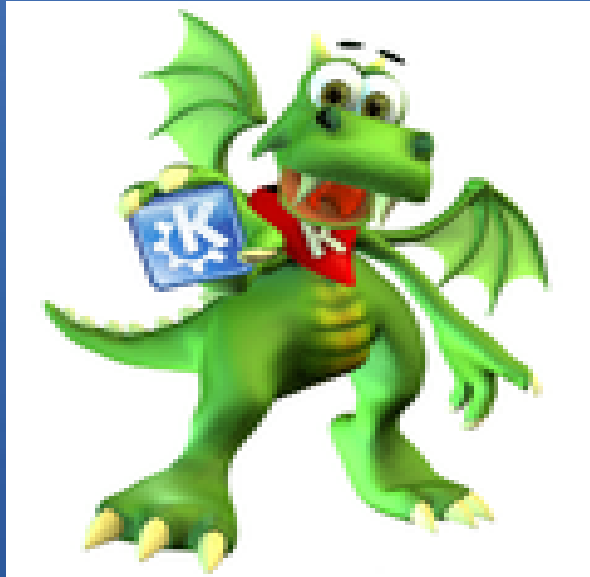
Feature	Details
Image formats	<ul style="list-style-type: none"> PNG MNG JPG GIF
Transfer protocols	<ul style="list-style-type: none"> HTTP 1.1 (including gzip/bzip2 compression) FTP and many more...
URL-Completion	<ul style="list-style-type: none"> Manual Popup (Short-) Automatic

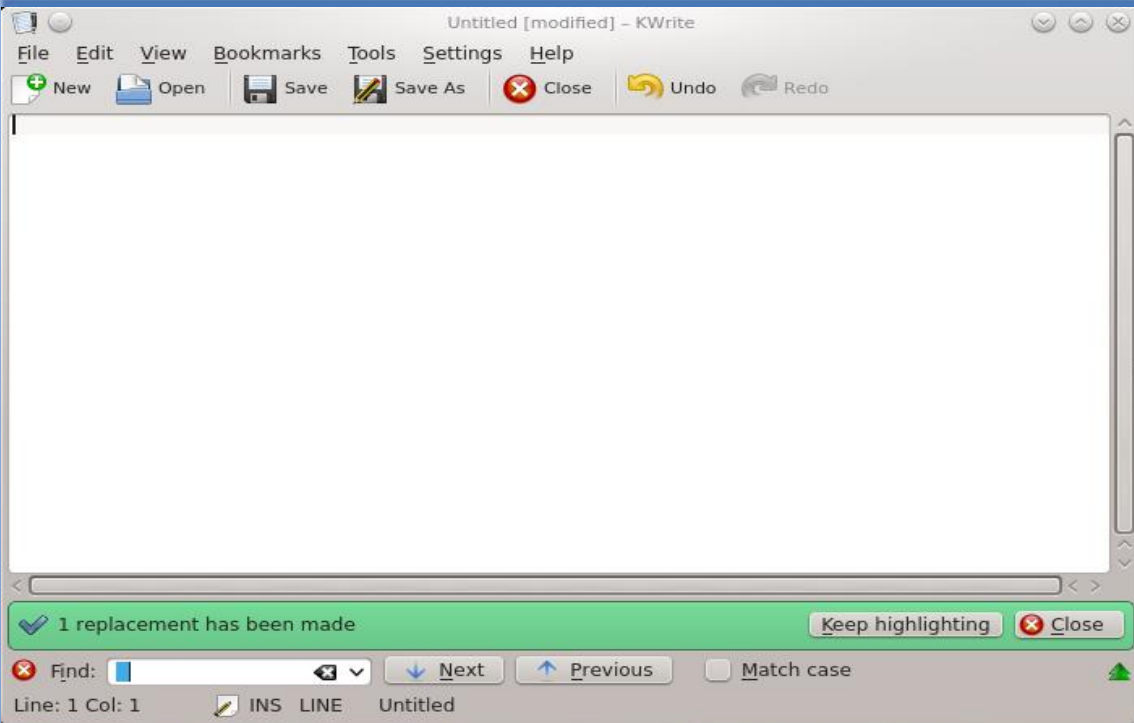
Back to the Introduction

Conquer your Desktop! - Konqueror

01:09 09/03/02

KDE – Plasma 4: 2008-13

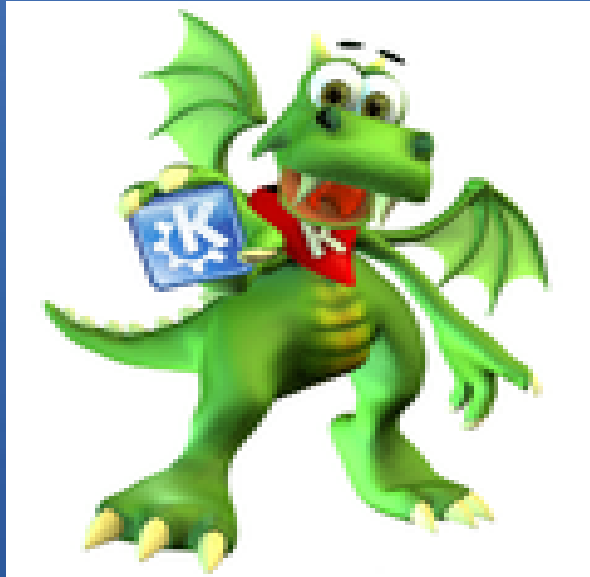




Desktop



KDE – Plasma 5: 2014-16





andrei

andrei@andrei-kubuntu (Ubuntu 14.04 LTS)

All Applications



Development



Education



Graphics



Internet



Multimedia



Office



Settings



System



Utilities



Help

[Help](#)



Favorites



Applications



Computer



Recently Used



Leave

System Settings

Overview

Configure

Help

Quit

Search

Appearance

Workspace Theme

Color

Font

Icons

Application Style

Workspace

Desktop Behavior

Window Management

Shortcuts

Startup and Shutdown

Search

Personalization

Account Details

Regional Settings

Notification

Applications

Network

Settings

Hardware



System Settings

Desktop



sidux-irc



sidux manual

Abc

Enter word to define here



User **vzulu9** on **siduxvbox**

KDE DESKTOP



Search:



Debian



Development



Education



Games



Graphics



Internet



Multimedia



Office



Settings



Favorites



Applications



Computer



Recently Used



Leave

Home



Bilder



Desktop



1

2

3

4

03:30



Gnome – v.1: 1999-01



GNOME™

Win98



Applications Actions



Computer



gnome's Home



Trash



GNOME Home



gnome

Document



Gnome – v.2: 2002-10



GNOME™



Thin Lizzy - Killer on the loose (Paused)

Organize Edit View Music Help

Killer on the loose
From Thin Lizzy Killers by Thin Lizzy

0:00 Search:

Title	Artist	Album	Time	Play Count
Painted Moon (Full Version)	The Silencers	A Letter From St Paul	6:27	
Agradeido	Banicada	Agradecidos...Rosendo	3:35	
Crucifixion	Extremo Duro	Agradecidos...Rosendo	3:04	
Strange land of woman	Deep Purple	Anthem	9:18	
Highway Star	Deep Purple	Anthem	6:46	
Como el agua	Camaron	Camaron	3:41	
Nitzer Ebb - Let Your Body Learn	Richie Hawn	Decks, EPX & 909	2:07	
Providence	Frontline Assembly	Everything Must Perish	9:08	
Voodoo child (slight return)	Jimmy Hendrix	Experience Hendrix	5:12	
Hey Joe	Jimmy Hendrix	Experience Hendrix	3:29	
darshan-tranceformation	Various Artists	flying rhino-album	8:09	
One Love	Prodigy	Hackers Soundtrack	3:47	
Hotel California	Eagles	Hotel California	6:30	
Prophecy	Front Line Assembly	Implode	6:14	

107 songs, 10:13:38 total time, 593.7 MB

Thin Lizzy - Killer on the loose (Paused)

Organize Edit View Music Help

Killer on the loose
From Thin Lizzy Killers by Thin Lizzy

0:00 Search:

Title	Artist	Album	Time	Play Count
Painted Moon (Full Version)	The Silencers	A Letter From St Paul	6:27	
Agradeido	Banicada	Agradecidos...Rosendo	3:35	
Crucifixion	Extremo Duro	Agradecidos...Rosendo	3:04	
Strange land of woman	Deep Purple	Anthem	9:18	
Highway Star	Deep Purple	Anthem	6:46	
Como el agua	Camaron	Camaron	3:41	
Nitzer Ebb - Let Your Body Learn	Richie Hawn	Decks, EPX & 909	2:07	
Providence	Frontline Assembly	Everything Must Perish	9:08	
Voodoo child (slight return)	Jimmy Hendrix	Experience Hendrix	5:12	
Hey Joe	Jimmy Hendrix	Experience Hendrix	3:29	
darshan-tranceformation	Various Artists	flying rhino-album	8:09	
One Love	Prodigy	Hackers Soundtrack	3:47	
Hotel California	Eagles	Hotel California	6:30	
Prophecy	Front Line Assembly	Implode	6:14	

107 songs, 10:13:38 total time, 593.7 MB

Back Forward Home

cinova/webste/pages/photos/sarethecat

CVS

50 images (21.0 MB), 1 selected (489.0 k)

1792 x 1200 pixels (100%) - 489.0 k - 24 Dec 2002, 14:10

network:///

File Edit View Go Bookmarks Help

Location: network:/// View as Icons

Information

Network neighborhood

New Server

network:///

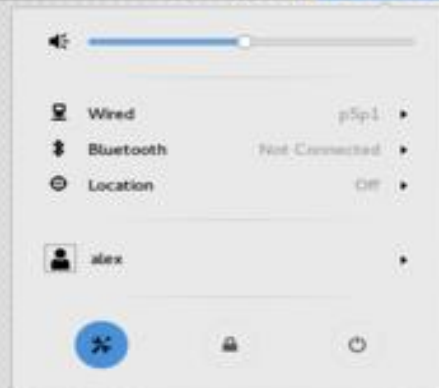
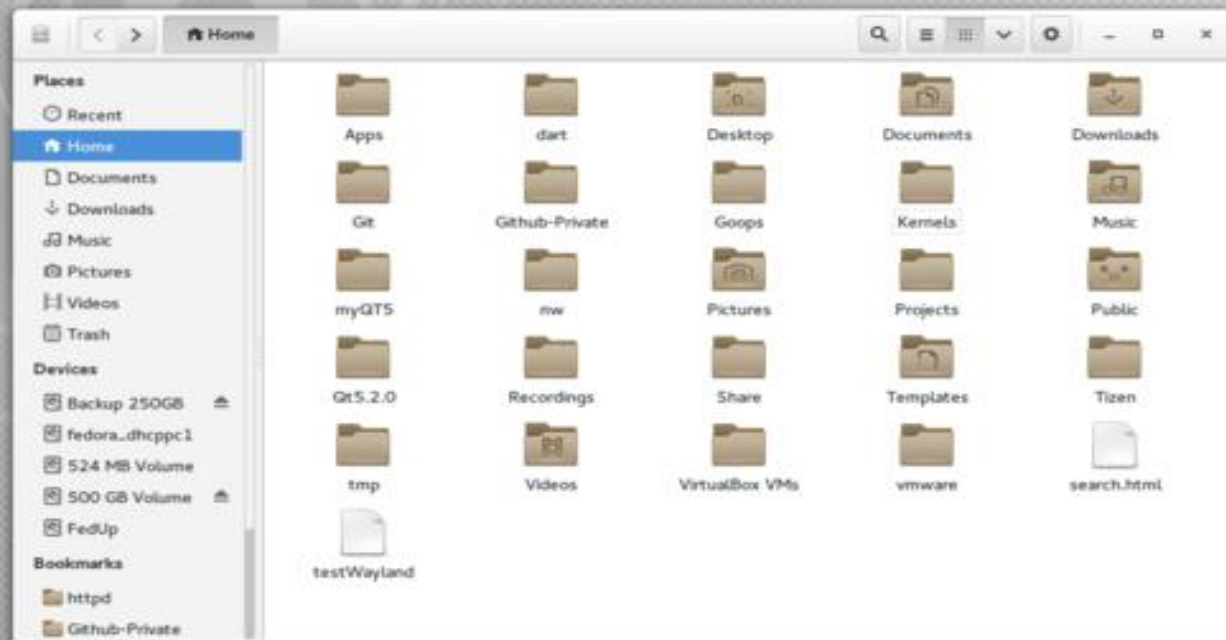
folder, 2 items

today at 6:30:04 PM

Gnome – v.3: 2011-16



GNOME™



Gnome – shell: 2011-16



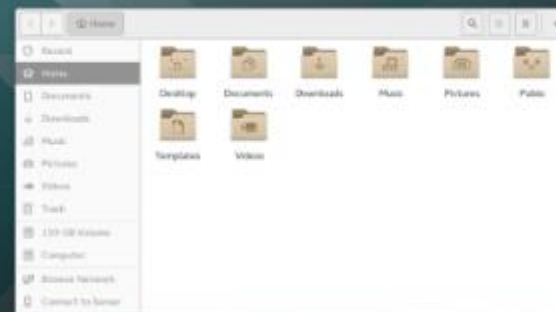
GNOME™



X Window System - Wikipedia, the free encyclopedia



Hong Kong International Airport



Home

Q Type to search...



AisleRiot Solitaire



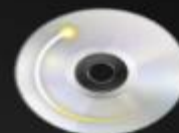
Background



Backups



Bluetooth



Brasero



Brightness & Lock



Cheese



Color



Contacts



Date & Time



Details



Disks



Displays



Documents



Empathy



Frequent

All

LXDE – v0.1: 2006



Monday July 15, 2013 10:00:24



My Documents



LiveCD Password I...



Install PCLinuxOS



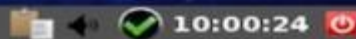
LXTerminal



Network Center



Trash



LXDE – v0.99.1: 2016





Google
Chrome



Calculator



SeaMonkey



Leafpad



Firefox Web
Browser



LO Writer



AceMoney



Screenshot



- Accessories >
- Graphics >
- Internet >
- Office >
- Programming >
- Sound & Video >
- System Tools >**
- Wine >
- Preferences >
- Run
- Logout

- Bulk Rename
- Configuration Editor
- GDebi Package Installer
- System Monitor
- Thunar File Manager
- UXTerm
- XTerm



We Don't Like It!

There were many users of the KDE desktop that did not like the direction the team was going. They liked the more traditional look/feel and didn't like all the bells and whistles that were being included (which also demanded more resources).

We Don't Like It!

So, being Open Source, a new team took the v3 code and continued on developing and improving that desktop, and gave it a new name, “Trinity”.

Trinity – (KDE3): 2010



Install
Ubuntu 1...



Konqueror
Conquer your Desktop!

Konqueror is your file manager, web browser and universal document viewer.
[Starting Points](#) · [Introduction](#) · [Tips](#) · [Specifications](#)



[Home Folder](#)
Your personal files



[Storage Media](#)
Disks and removable media



[Network Folders](#)
Shared files and folders



[Trash](#)
Browse and restore the trash



[Applications](#)
Installed programs



[About Kubuntu](#)
[Kubuntu Documentation](#)

[Next: An Introduction to Konqueror](#)

All Applications

- Press 'f' to search...
- Graphics
 - Internet
 - Multimedia
 - Office
 - Settings
 - System
 - Utilities
 - Add/Remove Programs
 - Help
 - System Settings**
 - Actions
 - Run Command...
 - Switch User
 - Lock Session
 - Log Out...

ge loaded.

kubuntu®
Powered by Trinity

Conquer your Desktop!

19:55

2010-09-26

We Don't Like It!

There were many users of the Gnome desktop that did not like the direction the team was going. They liked the more traditional look/feel and didn't like all the bells and whistles that were being include (which also demanded more resources).

We Don't Like It!

So, being Open Source, a new team took the v2 code and continued on developing and improving that desktop, and gave it a new name, “MATE” (ma-tay).

MATE- (Gnome2)



- Accessories
- Education
- Graphics
- Internet
- Office
- Sound & Video
- System Tools
- Universal Access



ubuntu **MATE**



Computer



guest-05jalj's Home



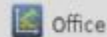
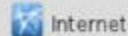
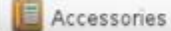
Places

- Computer
- Home Folder
- Network
- Desktop
- Trash

System

- Software Manager
- Package Manager
- Control Centre
- Terminal
- Lock Screen
- Logout
- Quit

Applications



Search:



Personal



Additional Drivers



Desktop Settings



Appearance



File Management



Pop-Up Notifications



Welcome Screen



Assistive Technologies



Keyboard Shortcuts



Preferred Applications



Windows



Disk Utility



Mouse



System Profiler and Benchmark



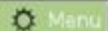
Keyboard



Printing



Volume Control



Menu



Control Center

3:16 PM



Unity – (Gnome shell)

There were many users of the Gnome Shell desktop that did not like the direction the team was going. The Ubuntu development team thought they could create a better one.

Unity – (Gnome shell)

So, being Open Source, a new team took the Shell code and continued on developing and improving that desktop, and gave it a new name, “Unity”.

Search Applications

All Applications

★ Most Frequently Used See 5 more results



Firefox
...b Browser



LibreOffice Writer



Banshee
Media Player



Ubuntu
Software Center



Printing



Terminal

☑ Installed See fewer results



About Me



Additional Drivers



AisleRiot Solitaire



Appearance



Assistive
Technologies



Banshee
Media Player



Bluetooth



Brasero Disc Burner



Broadcast Accounts



Broadcast
Preferences



Byobu
Command Line



Calculator



Character Map



Computer Inspector



Distro Manager



Dictionary



Disk Usage Analyzer



Disk Utility

Cinnamon- (Gnome shell)





All Applications

Accessories

Administration

Graphics

Internet

Office

Preferences

Sound & Video

System Tools

Places

Recent Files

APTonCD

Archive Manager

Background

Backup Tool

Banshee

Bluetooth

BootUp-Manager

Brasero

Brightness & Lock

Calculator

Chromium Web Browser

Color

Date & Time

dconf Editor

1/23

Menu

New Tab - Mozilla F...

Fri Oct 4, 22:56

We Don't Like Either of Them!

There were many users of the Gnome Shell desktop and the Unity desktop, that did not like the direction the teams were going. They liked the more traditional look/feel and didn't like all the bells and whistles that were being include (which also demanded more resources).

We Don't Like Either of Them!

So, being Open Source, a new team took the shell code and continued on developing and improving that desktop, and gave it a new name, “Cinnamon”.



Archive Manager



Calculator



Calendar



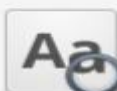
Camera



Document Viewer



Files



Font Viewer



Geary Mail



Midori



Multitasking View



Music



Photos



Scratch



Screenshot



Simple Scan

1

2



Pantheon DE



Search |

- All
- Accessories
- Internet
- Office
- Sound & Video
- Sundry
- System Settings
- System Tools
- Utilities

Utilities

- Terminal
- Screenshot

Accessories

- Calculator
- Files
- gedit Text Editor

Internet

- Firefox
- HexChat
- Mozilla Thunderbird Mail/News
- Transmission BitTorrent Client

Budgie DE



Internet



Google Chrome



HexChat



Pidgin Internet
Messenger



Remmina Remote
Desktop Client



Skype



Thunderbird Mail



Multimedia



Brasero Disc Burner



Deepin Movie



Deepin Music



Games



Deepin Game



Graphics



Deepin Cropper



Deepin Screenshot

Deepin DE



Wide range of choices

	<u>K</u>	<u>G</u>	<u>X</u>	<u>L</u>	<u>M</u>	<u>C</u>
Debian	x	x	x	x	x	x
Ubuntu/Debian	x	x	x	x	x	**
Linux Mint/Ubuntu/Debian	x		x		x	x
LMDE/Debian					x	x
Solyd-XK/Debian	x		x			

Wide range of choices

	<u>K</u>	<u>G</u>	<u>X</u>	<u>L</u>	<u>M</u>	<u>C</u>
Fedora/Red Hat	x	x	x	x	x	x
OpenSuSE/Slackware	x	x		x		x
Manjaro/Arch	x	x	x	x	x	x
PCLinuxOS/Mandriva/RH	x		x	x	x	

Choices, Choices

As you can see from the charts, you can first choose your distro and then choose your desktop; or choose your desktop and then choose a distro. Is the distro your main consideration or the desktop? The choice is up to you.

Building Parts

- General Motors = AC/Delco
- Ford = Motorcraft
- Chrysler = Mopar

Building Programs

- Slackware = slackpkg
- Debian = deb
- Red Hat = RPM
- Arch = Pacman
- Gentoo = Portage

Car Add-Ons

- A/C
 - Disk player
 - Power windows/doors
 - Cruise
 - Sun roofs
 - Heated seats
- (add-ons usually cost extra)

Linux Add-Ons

- Comes pretty well stocked
- Just about anything you want
- Always alternatives to the installed software
- Rarely costs any extra

Test Drives

With cars, you can try out a few under certain conditions (what you can do, where you can go, whether someone has to ride along, and how long can you do it).

Test Drives

With Linux and free LiveDisks, you can try out as many as you want with **no** restrictions (you can do whatever you want, and for however long you want). You can even run it as your OS off the disk and do everything without installing.

Which is BEST?

Best Car

Answer = ??

Best Linux

Answer = ??

The real answer is:

Whichever one meets your needs.

Thank You

For your personal test drive, visit:

<http://distrowatch.com/> (links to all distros)

<https://www.debian.org/distrib/>

<http://www.ubuntu.com/download>

<http://www.linuxmint.com/download.php>

https://fedoraproject.org/en_GB/get-fedora

<http://software.opensuse.org/131/en>

Contact Info

If you have any questions or would like to share any Linux information, please contact me:

lccs.freejohn@gmail.com