

LINUX > WINDOWS



Background



Windows

- .Founded in 1970
- .Bill Gates and Paul Allen
- .Multinational Technology Firm

Linux

- .Finnish Scientist
- .Personal Comp.
- .Android OS

What is an Operating System?

- . Most basic and necessary program
- . “The software that controls the hardware”
- . Keeps track of different files and directories
- . Communicating with connecting devices (printer)
- . Offers a user-interface (user-interaction)
- . Other functions include:
 - sharing hardware among users
 - allowing users to share data
 - preventing users from interfering with one another
 - handling network communications

Main Objectives When Securing an OS

- . Provisioning the servers of a network
 - Conducted in one area
 - Limits the amount of access admins have
- . Centralizing Account Management
 - To control overall access/assign appropriate access to each user
- . Efficient Monitoring Activity on the network
 - Potential security threats
 - Ex.) A central dashboard that monitors in real-time

Why Most Use Windows

- It's preinstalled on most laptops
- Available on computers cheaper than Apple
- Present in most work environments
- Many are paid to use and maintain it
- Most advertised OS
- Commercial Support?
- Easier to use?
- Has more software?
- Too many options?

Why Many Use OS X

- Single Point of Failure - Apple provides hardware AND software support
- Design
- Less Malware issues

Pros of using Linux

Over 100 available Linux distros (distributions) available

Most available on Distrowatch.com

Distros tailored to many individual niches - A/V production, development, old computers, etc.

Customization of Desktop Environment

More Secure

Free support

Includes FLOSS* Alternatives to popular important applications

FREE !

*FLOSS - (Free Libre Open Source Software)



Distrowatch.com

Put the fun back into computing. Use Linux, BSD.

Page Hit Ranking		
Data span:		
Last 6 months		
Go		
Rank	Distribution	H.P.D.*
1	Mint	3147▼
2	Debian	2098▼
3	Ubuntu	1626▲
4	openSUSE	1505▼
5	Fedora	1154▼
6	Manjaro	1070▼
7	Mageia	975▼
8	CentOS	888▼
9	Arch	825▼
10	Android-x86	792▲
11	Zorin	725▲
12	Kali	723▼
13	PCLinuxOS	633▼
14	LXLE	617▼
15	Puppy	614▼
16	deepin	597▲
17	Lite	597▼
18	Ubuntu MATE	590▲
19	Lubuntu	562▲
20	elementary	557▲
21	antiX	489▼
22	Slackware	474▲
23	Cub	457▼
24	Tails	453▼
25	Netrunner	446▼
26	Antergos	435▼
27	Black Lab	420▼
28	Simplicity	420▼
29	FreeBSD	415▼
30	Xubuntu	397▲
31	Sabayon	394▼
32	Bodhi	364▼
33	KaOS	362▼
34	Q4OS	360▼
35	Solus	358▼
36	SteamOS	351▼
37	Peppermint	336▲
38	Ultimate	333▲
39	Kubuntu	327▲
40	ClearOS	322▲
41	KNOPPIX	314▼

OS Type

Distribution category

Country of origin

Based on

Not based on

Desktop interface

Architecture

Package management

Release model

Install media size

Install method

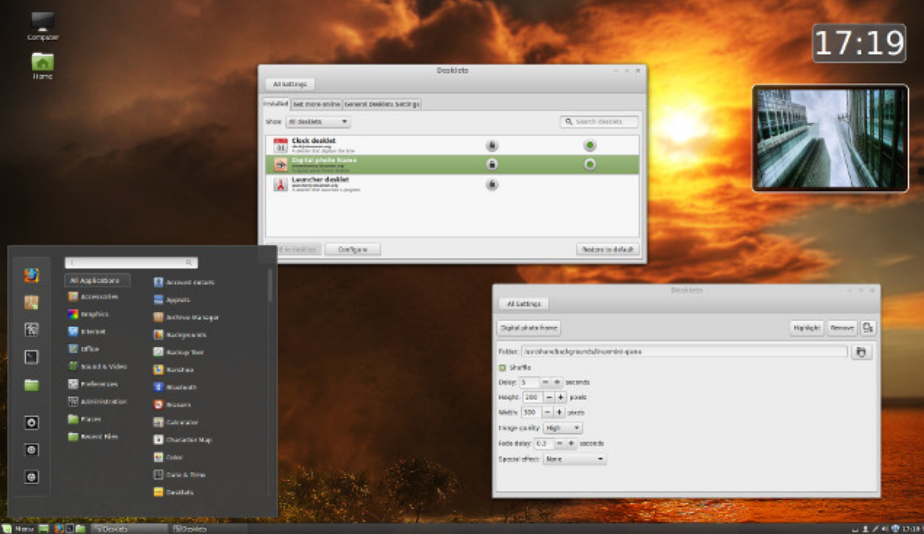
Status

You can search from over 250 Linux and BSD Distros by intended purpose, DE, and more.

You can readily see which distros get the most page hits daily.

It's the Perfect Response to Those Who Believe Ubuntu is the end-all be-all of Linux.

Sources:
Distrowatch.com
<http://golivelively.com/2016/02/15/whydistrowatchrocks/>

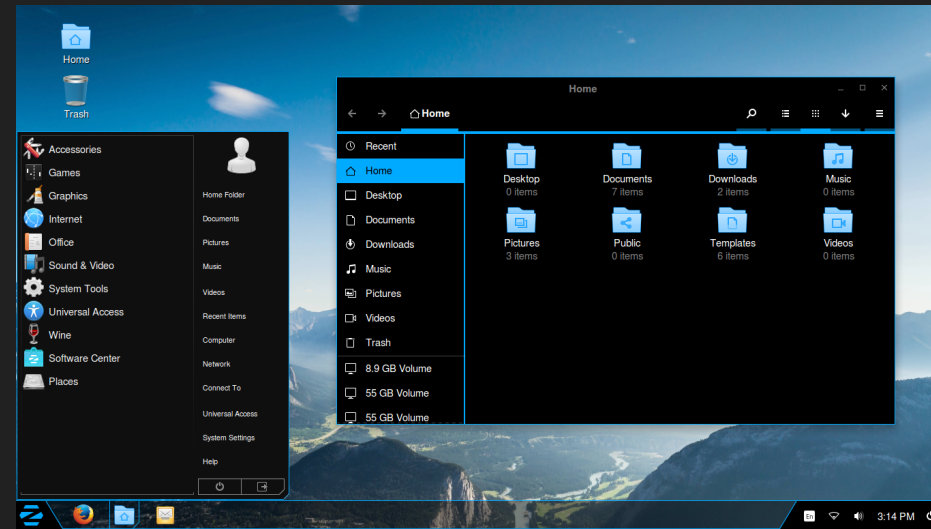


Mint Cinnamon DE Ubuntu-based*

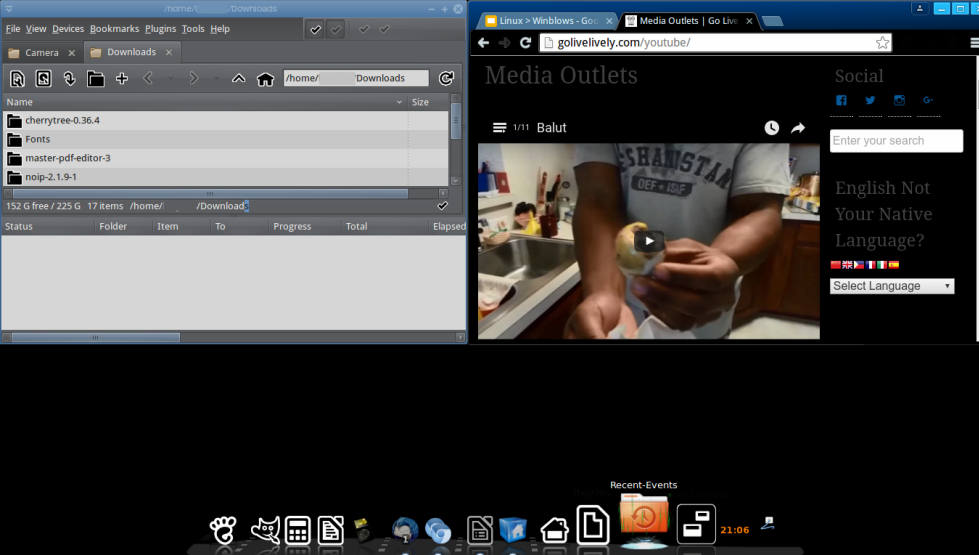
Download links

EDITION			MULTIMEDIA SUPPORT *
Cinnamon	32-bit 64-bit	An edition featuring the Cinnamon desktop	Yes
Cinnamon No codecs	32-bit 64-bit	A version without multimedia support. For magazines, companies and distributors in the USA, Japan and countries where the legislation allows patents to apply to software and distribution of restricted technologies may require the acquisition of 3rd party licenses*.	No
Cinnamon OEM	64-bit	An installation image for manufacturers to pre-install Linux Mint.	No

Zorin LXDE/GNOME DE Ubuntu-Based

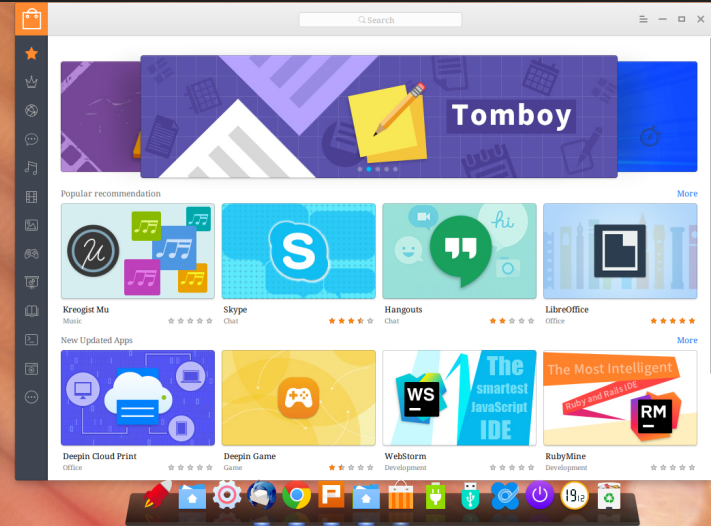


* - LinuxMint.com offers an image without codecs but can easily be downloaded during installation or after via the software center. Package licenses can be purchased from Fluendo and others.



Deepin 15
XFCE DE
Ubuntu-based

Ubuntu Studio
XFCE DE
Ubuntu-Based



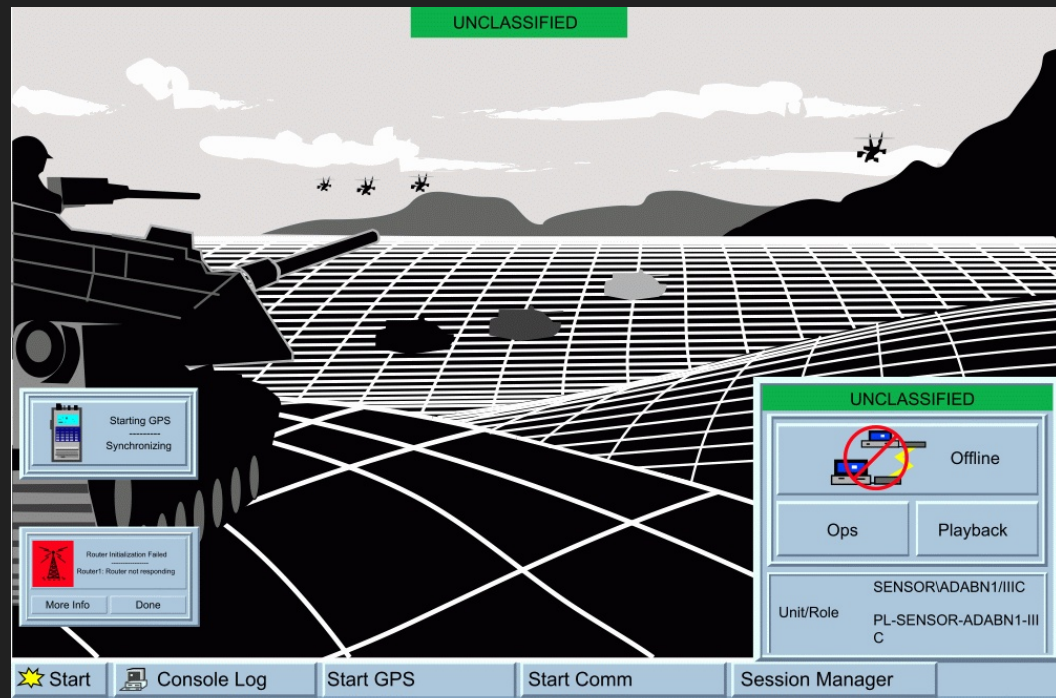
Philippines Gov
One Laptop Per Child
Google
Wikipedia
PS3

Fedora and Ubuntu
OLPC XO-1 with Linux
Ubuntu-based "Goobuntu"
Ubuntu
Yellow Dog

FBCB2

Force Battle Command Brigade and Below

Blue Force Tracker



Open Source Software Security

No more susceptible to malware than proprietary software

More developers *available* to review code, though that includes hackers

Increased hardening possible



	Product Name	Vendor Name	Product Type	Number of Vulnerabilities
1	Mac Os X	Apple	OS	384
2	Iphone Os	Apple	OS	375
3	Flash Player	Adobe	Application	314
4	Air Sdk	Adobe	Application	246
5	AIR	Adobe	Application	246
6	Air Sdk & Compiler	Adobe	Application	246
7	Internet Explorer	Microsoft	Application	231
8	Chrome	Google	Application	187
9	Firefox	Mozilla	Application	178
10	Windows Server 2012	Microsoft	OS	155
11	Ubuntu Linux	Canonical	OS	152
12	Windows 8.1	Microsoft	OS	151
13	Windows Server 2008	Microsoft	OS	149
14	Windows 7	Microsoft	OS	147
15	Windows 8	Microsoft	OS	146
16	Windows Rt 8.1	Microsoft	OS	139
17	Windows Rt	Microsoft	OS	138
18	Windows Vista	Microsoft	OS	135
19	Safari	Apple	Application	135
20	Android	Google	OS	130
21	Acrobat	Adobe	Application	129
22	Acrobat Reader	Adobe	Application	129
23	Opensuse	Novell	OS	121
24	Debian Linux	Debian	OS	111
25	Itunes	Apple	Application	100
26	Acrobat Reader Dc	Adobe	Application	97
27	Acrobat Dc	Adobe	Application	97
28	Firefox Esr	Mozilla	Application	94
29	JRE	Oracle	Application	80
30	JDK	Oracle	Application	80
31	Linux Kernel	Linux	OS	77
32	Mysql	Oracle	Application	76
33	Fusion Middleware	Oracle	Application	68
34	Apple Tv	Apple	Application	57
35	Windows 10	Microsoft	OS	53

Common Vulnerabilities and Exposures - CVE.mitre.org

Raza, Ali. (2016). Surprise, Apple's OS X comes out as most vulnerable software of 2015. Retrieved from

<http://www.hackread.com/apples-os-x-most-vulnerable-software-of-2015/>

Tubilleja, Jose R. (2015). *Security Issues Surrounding the Use of Open Source Software by Online*

Students. Retrieved from

FLOSS SysAdmin Alternatives

Windows Firewall
Active Directory
Windows Server
-Web Apps

GUFW
Samba, Univention, OpenLDAP
ClearOS, CentOS/RHEL, Ubuntu Server
Zentyal, Amahi



FLOSS App Alternatives

Microsoft Office

Photoshop

FL Studio / Pro Tools

Sony Vegas

Print Screen / Greenshot / PicPick

Other MS/only applications

Libre Office / WPS / Open Office + Thunderbird / Evolution

Krita / GIMP / Blender / Darktable

LMMS / QTracktor / Audacity

OpenShot / kdenlive

Shutter

WINE / Virtualbox