A Brief History of GNOME

GNOME 3.28 Release Party @Xidian University
Early graphics system for Unix systems

MIT Athena Project

Provide mechanism rather than policy

Almost 35 years old!
The X server manages input and output for even remote clients:

- Screen
- Keyboard
- Mouse

The diagram shows the interactions between the X server, client applications, window manager, and hardware components. The X server communicates with client applications like Firefox (Amarok) and others, running on the user's workstation. Remote clients can access this setup through network connections, managed by the network stack and hardware components.
Window Manager

Size
Position
Overlay
Decoration
Shadow
...

Stacking / Tiling
twm

NAME
xset - user preference utility for X

SYNOPSIS
xset [-display display] [-b] [b on/off] [-v] [volume [pitch [duration]]] [-[-be] [-v] [on/off] [e [volume]] [-[-dvw] [dvw standby | suspend | off]]] [-[-p[-] pitch]] [-[-e] [e on/off]] [-[-f] [f default] [f boot] [-[-b] [b default] [b boot]] [-[-l] [lode | integer]] [lode on/off]] [-[-m] [m use]] [accel auto/accel quiet] [accel=20]] [-[-n] [nouse]] [nouse default] [-[-p] [p pulses color]] [-[-i] [i [keysound]] [key on/off]] [-[-r] [r reset delay [reset]] [-[-l] [l [level] [level]]]] [-[-k] [k [knoblevel]] [k knobs on/off]] [-[-e] [e empovs/empovs] [e on/off]] [-[-d] [d default] [d activated] [d reset]]

DESCRIPTION
This program is used to set various user specific options of the display.

OPTIONS
-display display
This option specifies the server to use; see X(7).

-b
The -b option controls bell volume, pitch and duration. This option accepts up to three numerical parameters, a preceding dash(-), or a 'on/off' flag. If no parameters are given, or the 'on' flag is used, the system defaults will be used. If the dash or 'off' are given, the bell will be turned off. If only one numerical parameter is given, the bell volume will be set to that value, as a percentage of its maximum. Likewise, the second numerical parameter specifies the bell pitch, in hertz, and the third numerical parameter specifies the duration in milliseconds. Note that not all hardware can vary the bell characteristics. The X server will set the characteristics of the bell as closely as it can to the user's specifications.

-be
The -be option controls key compatibility mode in the server, if
Widget Library (Toolkits)

menus, buttons, scrollbars, ...

client libraries (Xlib, XCB)

X11 display server protocol

display server (X.Org Server, XFree86, etc.)

window manager (Mutter, KWin, Compiz, etc.)
GIMP - 1995

GNU Image Manipulation Program.

Inspired by Photoshop, started at Berkeley.

Fully **free software** except for Motif as the underlying widget toolkit

Led to GTK+ being created

GTK (GIMP Toolkit) → GTK+
Free Software Movement - 1983

GNU – a free Unix-like operating system
Founded by Richard Stallman in 1983
Software Freedom
GPL (General Public License)

Linux – a kernel created by Linus Torvalds
v0.12 released under GPL in 1992
X + GNU + Linux
Problem: None of the applications looked, felt, or worked alike.
Solution: Create a desktop environment.

Window Manager
File Manager
Panel
Utilities
Applications

Toolkit
KDE – 1996

Founded by Matthias Ettrich

Goal: make this desktop easy to use.

Free Software code as the core desktop. Based on Qt as the underlying widget toolkit.

It is amazing, but ... Qt was not Free Software
The GNOME Desktop project (GNU Network Object Model Environment)

http://bananoid.nuclecu.unam.mx/gnome

Goals:
We want to develop a free and complete set of user friendly applications and desktop tools, similar to CDE and KDE but based entirely on free software....
GNOME vs KDE

Massive fight breaks out across the Linux scene:

C vs. C++
GTK+ vs. Qt
Hackers vs. Corporate
America vs. Germany
Cats vs. Dogs

..."People thought only one could survive."
1998

RHAD Labs formed at Red Hat

Red Hat Advanced Development Labs

Qt relicenses to the QPL

“In theory it changed everything.
In practice it changed nothing...”
GNOME 1.0 - 1999

Released at Linux Expo

“Barely worked. Everything crashed.”
2000

GNOME Foundation

*Initial members:*
Compaq, Eazel, Helix Code, IBM, Red Hat, Sun Microsystems, VA Linux

GUADEC

(GNOME Users And Developers European Conference)
Where the project gets together to recharge and renew.
Default panel layout

Text editor (gedit)

Sound daemon (esound)

“It mostly worked”
GNOME 1.4 - 2001

- File Manager (nautilus)
- System Monitor (gtop)
- System updater
- System-wide settings (gconf)
OS X 10.0 - 2001
GNOME 2.0 - 2002

GTK+ 2
Human Interface Guidelines
Consistency over Configurability.
Rejected by many existing users.
Time-based release
Ubuntu - 2004

Ubuntu 4.10 shipped with GNOME 2.8

Based on Debian

Focused on desktop
User-friendly

Drove GNOME 2.x to a dominant position
GNOME 2.28 - 2009

GNOME 2.28 is the latest version of the GNOME Desktop, a popular, multi-platform desktop environment for your computer. GNOME is easy to use, scalable, and first-class internationalisation and accessibility support. GNOME is Free and Open Source Software and provides all of the common tools computer users expect of a modern computing environment, such as email, groupware, web browsing, file management, multimedia, and games. Furthermore, GNOME provides a flexible and powerful platform for software developers, both on the desktop and in mobile applications.

Enter a web address to open, or a phrase to search for.
Planning for GNOME 3 - 2009

PC, phone, tablets, 2-in-1 devices, ...

Touch screen
Shell / Unity split - 2010

Disagreement in user experience

Red Hat vs. Canonical
Shell vs. Unity
Wayland vs. Mir

Communities split, people choose sides again
Unity – 2011

Ubuntu 11.04

Unity is not a DE, but a shell on GNOME stack
GNOME 3.0 - 2011

GTK+ 3
Shell replaced Panel
Rejected by many existing users.
GNOME 2.32 - 2010
MATE / Cinnamon - 2011

Forked from GNOME 2
Supported by Ubuntu MATE and Linux Mint

Forked from GNOME 3
Developed by Linux Mint
2013 - 2017

Extensions!

Thousands of tweaks, refinements, and polish fixes.

 GNOME Applications

Flatpak and FlatHub
Growing Ubuntu for cloud and IoT, rather than phone and convergence

Canonical on 5 April 2017

This is a post by Mark Shuttleworth, Founder of Ubuntu and Canonical

We are wrapping up an excellent quarter and an excellent year for the company, with performance in many teams and products that we can be proud of. As we head into the new fiscal year, it’s appropriate to reassess each of our initiatives. I’m writing to let you know that we will end our investment in Unity8, the phone and convergence shell. We will shift our default Ubuntu desktop back to GNOME for Ubuntu 18.04 LTS.

I’d like to emphasise our ongoing passion for, investment in, and commitment to, the Ubuntu desktop that millions rely on. We will continue to produce the
Thanks all the organizers and volunteers for your effort in GNOME.Asia Summit 2017 in Chongqing
GNOME 3.28 - New Features

Video

https://www.youtube.com/watch?v=g9SJEdBekI4
How to get GNOME 3.28

Arch Linux

```
sudo pacman -Sy gnome
```

Debian

Upgrade to unstable or testing, and wait patiently.

Ubuntu

Ubuntu 18.04 LTS will be released in April, which features GNOME 3.28 as the default desktop.

Fedora

Fedora 28 will be released in May (hopefully).
Questions and Answers

Q&A?
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参考了 Jonathan Blandford <jrb@gnome.org> 发布的 A Brief History of GNOME

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