A Brief History of GNOME

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Setting the Stage

1984 - 1997
Setting the stage

- 1984 — X Windows created at MIT
- 1985 — GNU Manifesto
- 1991 — GNU General Public License v2.0
- 1991 — Initial Linux release
- 1991 — Era of big projects
- 1993 — Distributions appear
- 1995 — Windows 95 released
- 1995 — The GIMP released
- 1996 — KDE Announced

- Early graphics system for Unix systems
- Created by MIT
- Focused on mechanism, not policy
- Holy Moly! X11 is almost 35 years old
A Brief History of GNOME

- Network Transparency
- Window Managers
- Netscape Navigator
- Toolkits (aw, motif)
- Simple apps
- Virtual Desktops / Workspaces

twm circa 1995

anchise 11

- Display Transparency
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- Founded by Richard Stallman
- Our fundamental Freedoms:
  - Freedom to **run**
  - Freedom to **study**
  - Freedom to **redistribute**
  - Freedom to **modify** and improve
- Also, a set of compilers, userspace tools, editors, etc.

*This was an overtly political movement and act*
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"The licenses for most software are designed to take away your freedom to share and change it. By contrast, the GNU General Public License is intended to guarantee your freedom to share and change free software—to make sure the software is free for all its users. This General Public License applies to most of the Free Software Foundation’s software and to any other program whose authors commit to using it..."

—GNU GPL v2 preamble
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From: torvalds@klaava.Helsinki.FI (Linus Benedict Torvalds)
Subject: What would you like to see most in minix?
Date: 25 Aug 91 20:57:08 GMT

Hello everybody out there using minix –

I’m doing a (free) operating system (just a hobby, won’t be big and professional like gnu) for 386(486) AT clones. This has been brewing since april, and is starting to get ready…
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Linux (‘91)
Python (‘91)
Samba (‘92)
Apache (‘95)
mysql (‘95)
gimp (‘95)
postgresql (‘96)
KDE (‘96)
GNOME (‘97)
Mozilla (‘98)
Eclipse (‘01)
...

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SLS (‘92)
Slackware (‘93)
Debian (‘93)
Suse (‘94)
Red Hat (‘94)
Ubuntu (‘04)
CentOS (‘04)
Mint (‘06)
Sugar (‘06)
ChromeOS (‘09)
SteamOS (‘13)
EOS (‘13)
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Windows 95

- Dominated the industry like nothing before or since
- Rocketed to take 98% PC Market share by 1998
- Microsoft was *SCARY*, and played for keeps

Never forget!!
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- 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
- Initial cultural pool for GNOME hackers
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- First major effort at a coordinated Desktop Project
- Free Software code as the core desktop. Based on Qt as the underlying widget toolkit
- It was amazing, but...

This was not Free Software
Desktop Wars Begin

1997 – 1999
Desktop wars begin

1997

- Miguel announces GNOME Project
- GNOME vs KDE

1998

- RHAD Labs formed at Red Hat
- Qt relicenses to the QPL
- Project Bob

From: Miguel de Icaza
To: gtk-list@redhat.com, kde@fiwi02.wiwi.uni-tuebingen.de, guile@cygnus.com
Subject: The GNOME Desktop project.
Date: Fri, 15 Aug 1997 22:19:34 -0500

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....
Desktop wars begin

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Massive fight breaks out across the Linux scene:
- C vs. C++
- Germany vs. America
- Corporate vs. Hackers
- Qt vs. GTK+
- Cats vs. Dogs
- Riots and chaos in the streets!
A Brief History of GNOME

Desktop wars begin

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Red Hat Advanced Development Labs

Early corporate engagement. Seven full-time engineers working on GNOME

Took over some of the less-glamorous work at the time
A Brief History of GNOME

- The Panel
- Panel Applets
- File Manager (GMC)
- Control center settings
- Simple games
- Simple utilities
- Login Manager
- help browser
- VFS layer
- Calendar (gnome-cal)
- Spreadsheet (gnumeric)
- Word Processor (abi)
- Themes
- CORBA
- Canvas
- Internationalized Keyboard

GNOME 0.30
September, 1998
Desktop wars begin

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Trolltech invented a new license

In theory it changed everything.
In practice it changed nothing...

In a couple years, Trolltech would fully embrace the GPL w/a licensing exception
Desktop wars begin

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- **Project Bob**

Project Bob

**The mission:** 36 Hours to get something that could be shown to Red Hat’s board so GNOME wouldn’t be cut

**The solution:** Spend 36 hours without sleeping to get a working desktop
Desktop wars begin

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Project Bob

**The mission:** 36 Hours to get something that could be shown to Red Hat’s board so GNOME wouldn’t be cut

**The solution:** Spend 36 hours without sleeping to get a working desktop

**The actual solution:** Write a cool new theme!
Battle for Dominance and Survival

1998 - 2001
Battle for dominance

1999
- **GNOME 1.0**
- Helixcode, Eazel, and Sun

2000
- GUADEC in Paris
- The GNOME Foundation
- Sun Microsystems and clocks

2001
- dotcom bubble bursts, Eazel goes bust
- Novell buys Ximian, then Suse
- OSX 10.0 released

**GNOME 1.0**

Released at Linux Expo

Barely worked. *Everything* crashed

Terrible press conference with RMS yelling at the New York Times for not saying "*GNU slash Linux*"
 GNOME 1.0 (March 1999)
Battle for dominance

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**HelixCode** was founded by Miguel de Icaza and Nat Friedman. It later became Ximian
- Evolution
- bonobo

**Eazel** was founded by Andy Hertzfeld of MacOS fame
- nautilus
- Gnome-vfs

**Sun** was the biggest Unix vendor at the time
- GNOME Accessibility
Battle for dominance

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**GNOME Users And Developers European Conference**
- Where the project gets together to recharge and renew
- Started in Paris in 2000
- 18th is here in Manchester!
Battle for dominance

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Started in a Parisian Café
Initial members: Compaq, Eazel, Helix Code, IBM, Red Hat, Sun Microsystems, and VA Linux
Bylaws forbid any one company from holding more than $\frac{1}{3}$ of the seats on the Board of Directors
GNOME Foundation
March, 2000

- Accessibility
- Accounts
- Design
- Documentation
- Diversity
- Engagement
- Membership & Elections
- Maintainers

- Moderators
- Outreach
- QA/Bugsquad
- Release Team
- Safety
- Sysadmin
- Translations
- Usergroups
GNOME 1.2
May, 2000

- Default panel Layout
- Text editor (gedit)
- Sound daemon (esound)
- It mostly worked
Battle for dominance

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- GUADEC in Paris
- The GNOME Foundation
- **Sun Microsystems and clocks**

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- dotcom bubble bursts, Eazel goes bust
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- OSX 10.0 released

Very influential GUADEC presentation by Calum Benson
- GNOME 1.4 shipped with five (!) different clocks
- User testing showed that users couldn’t find a way to tell the time
- Beginning of design centric culture

*From here on out, GNOME only removes features*
Evolution of the logo
1997 – 2002
A Brief History of GNOME

Battle for dominance

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Novell buys Ximian. For a brief moment, things are good.

Three months later they buy Suse, and the Desktop Wars rage on, now internally.

They didn’t know what they were getting into....
GNOME 1.4
April, 2001

- File Manager (nautilus)
- System Monitor (gtop)
- System updater
- system-wide settings (gconf)

Welcome to the Helix GNOME Installer.

This application will assist you with quickly installing the Helix GNOME desktop onto your Red Hat Linux 6.2 system. Please quit any currently running applications to avoid potential conflicts between the installer and your current GNOME installation, if any.

**Note:** You will have to restart all X sessions on your machine after installation.

To **abort** the installation process, click the **Cancel** button. To **continue** with the installation, click the **Next** button.
Battle for dominance

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- Helixcode, Eazel, and Sun

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- dotcom bubble bursts, Eazel goes bust
- Novell buys Ximian, then Suse
- **OSX 10.0 released**
OSX Eats our Base: Slow Decline

2002 - 2005
OSX eats our base

2002
- GNOME 2.0
- Time based releases. Turn the crank
- Accessibility

2003
- Settings → Preferences
- “Just works”

2004
- Stateless Managed Linux
- Ubuntu arrives on the scene

 GNOME 2.0
Complete rethinking of the desktop
Start of a focus on design and usability
Completely controversial. Rejected by many existing users
Customizers went to KDE
GNOME 2.0
June, 2002

- dbus
- Design Team and focus
- Time-based release
- Internationalized text (pango)
- Right-to-left text
- anti-aliased fonts
- xml parsing library
- Event-driven system architecture
- Global Input methods
- Accessibility
- Video Playback (gstreamer)
OSX eats our base

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 GNOME pioneered the idea of time based releases

Continues to this day. Every six months for fifteen straight years

If a feature isn’t ready, it gets kicked out!
A Brief History of GNOME

OSX eats our base

2002
- GNOME 2.0
- Time based releases. Turn the crank
- **Accessibility**

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Started by Sun Microsystems

Brought the concept of *Universal Access* to GNOME

screen-reader, themes, icons, sticky keys, bounce keys, Braille devices, etc...

Despite some grumblings, broadly accepted as a key tenet of the project
OSX eats our base

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"Let’s turn settings into preferences"
– Havoc Pennington

Introduction of the GNOME HIG. Focus on simplification

Standardized look and feel across apps and the desktop

Consistency over configurability

[Cancel][OK]
OSX eats our base

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Hardware Enablement

We drain the swamp

Rise of the *Kits *Managers and D-Bus everywhere

Focus on root cause analysis. Problems fixed from kernel all the way up through the UI
A Brief History of GNOME

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Influential project done by Red Hat

Predates systemd, Flatpak, CoreOS, ostree, Endless OS, Project Atomic by 10 years, but same model (read only root)

Drove hardware enablement
GNOME 2.8
September, 2004

- Hardware detection (Hal / Project Utopia)
- Network discovery
- Automatic Wifi (NM)
- File Indexing
- Power Management
- Reliable suspend/resume
- Document Viewer
- App-level RTL support
- Disk management
- Multimedia keys
- Groupware mail/calendar (evo)
OSX eats our base

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Canonical was at the right place at the right time

Combined Debian, GNOME, and the kernel into a useful and usable product

Focus on users was correct

Drove GNOME 2.x to a dominant position across the Linux ecosystem by growing the base
New Hope! Powerful Patrons

2005 - 2009
New Hope!

2005 – 2008

- Nokia and Maemo
- Moblin and Intel
- Red Hat expands desktop team
- One Laptop per Child
- Nokia buys Trolltech

Nokia Sponsors a bunch of work on GNOME

The GNOME Contractors: Collabora, Codethink, Igalia, Opened Hand, Imendio, etc all are spawned or grow through this effort

High point in 2005 – 2006
New Hope!

2005 - 2008

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Intel started a Mobile Linux initiative called Moblin

Opened Hand develops clutter for the initiative, purchased by Intel

Merged with Maemo to create Meego

Beaten by Android in practice
New Hope!

2005 - 2008

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Team grows dramatically and focuses on GNOME Fundamentals

Targets Technical Workstations successfully

Launches a product called Red Hat Global Desktop to target the developing world
New Hope!

2005 - 2008

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Creates Sugar based on GNOME Technologies

Still around in some form. Super powerful brand, 10 years on.

Maybe a little too ambitious and aggressive
GNOME 2.16
September, 2006

- Root / user split (polkit)
- Web Cam support
- Video Player (totem)
- CD Ripper (sound juicer)
- Document Viewer (evince)
- Password Manager
- Notes
- Automatic Print dialog
New Hope!

2005 - 2008

- Nokia and Maemo
- Moblin and Intel
- Red Hat expands desktop team
- One Laptop per Child
- Online Desktop / Mugshot
- **Nokia buys Trolltech**

Nokia: Internal battle results in moving from GTK+ to Qt. Rewriting everything causes a multi-year delay and Android eats their lunch

Contractors: Pain, retreat, and consolidation

The party ends for everyone
Divorce and Chaos

2009 – 2013
Divorce & Chaos

2009
- Nokia turns into a pumpkin
- GNOME 3 planning begins

2010
- Unity / Shell split

2011
- GNOME 3 release
- Desktop explosion, distro discordance

Nokia is beaten by Android and iOS
They try increasingly desperate moves for a few more years until they finally disappear into Microsoft.
GNOME 2.28
September, 2009

- Multihead support
- Monitor hotplug support
- Bluetooth
- Empathy IM client
- File sharing
- Fingerprint support
- Smart card support
Divorce & Chaos

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2010

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 GNOME 2 was good, but not good enough. Only good for Linux users

Representatives of Red Hat, Suse, Debian, Sugar, and Canonical get together to plan GNOME 3

Mark attends, but has other plans...
Divorce & Chaos

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Red Hat vs. Canonical
Wayland vs. Mir
Shell vs. Unity
Communities split, people choose sides again
Divorce & Chaos

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**Massive accomplishment**

Completely controversial. Rejected by many existing users

Fighting against Canonical too, this time
A Brief History of GNOME

GNOME 3
April, 2011

- Shell
- Extensions
- Built-in chat
- Documents
- Color Management
- Touchscreen support
- Onscreen Keyboard
- Desktop Search
- Smooth Scroll
- Touchpad support
- Virtualization support (boxes)
- Clocks
- Privacy controls
- Wacom tablet support
- Topic-oriented help
Divorce & Chaos

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Desktop world fragmented
- Ubuntu lost support
- GNOME lost support
- GNOME technologies did okay

Cinnamon, Mate, Unity, GNOME, Elementary, etc.

No one won in the end
GNOME 3.8
March, 2013

- Online Accounts
- Contacts
- Lock shield
- Edge pointer force
New Momentum & Quiet Excellence

2013 - 2017
New momentum

2013-2016

- Time based releases again
- Extensions
- Refinement of the shell design
- GNOME Applications
- Community rallies

2017

- Flatpak and Flathub
- Reconciliation and opportunity

We return to turning the crank after 3.0

Steady improvement and focus on design
New momentum

2013-2016

- Time based releases again
- **Extensions**
- Refinement of the shell design
- GNOME Applications
- Community rallies

2017

- Flatpak and Flathub
- Reconciliation and opportunity

Allowed custom code to be run in the shell, similar to applets

Acted as a *pressure release* for functionality that doesn’t belong in core GNOME
New momentum

2013-2016

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Fixed worst of the design issues

Thousands of tweaks, refinements, and polish fixes

Userbase got used to the change. Some sorting took place
New momentum

2013–2016
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- Refinement of the shell design
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Applications:
- Books
- Boxes
- Builder
- Calendar
- Clocks
- Documents
- Files
- Maps
- Music
- Photos
- Todo
- Videos
- Web
- Weather

etc., etc. more to come!
GNOME 3.18
September, 2015

- Maps
- Firmware updates
- Photos
- Weather app
- Captive Portal support
- Multitouch
- Music
- Notes
- HiDPI Support
- Initial user setup
- Calendar
- Builder
- Flatpak
- Multi-touch touchpad
- Todo lists
- Google drive support (ro)
New momentum

2013-2016
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Groupon Attacks!

The wider community rallied in response

5622 individuals contributed $102,608.76 USD in less than a week

Three days outrage and action fixed what nine months of negotiations failed to do
New momentum

2013–2016

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Flatpak is awesome!

Flathub is here

Go forth and, uh, flatify things?
New momentum

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2017
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Ubuntu returns to using GNOME by default!

Opportunity to heal a major Linux division
Final thoughts

2017 and beyond
Special thanks to:

- Federico Mena Quintero
- Robin Tafel
- Owen Taylor
- Rosanna Yuen

But most of all. Thanks to..
A Brief History of GNOME
Questions?