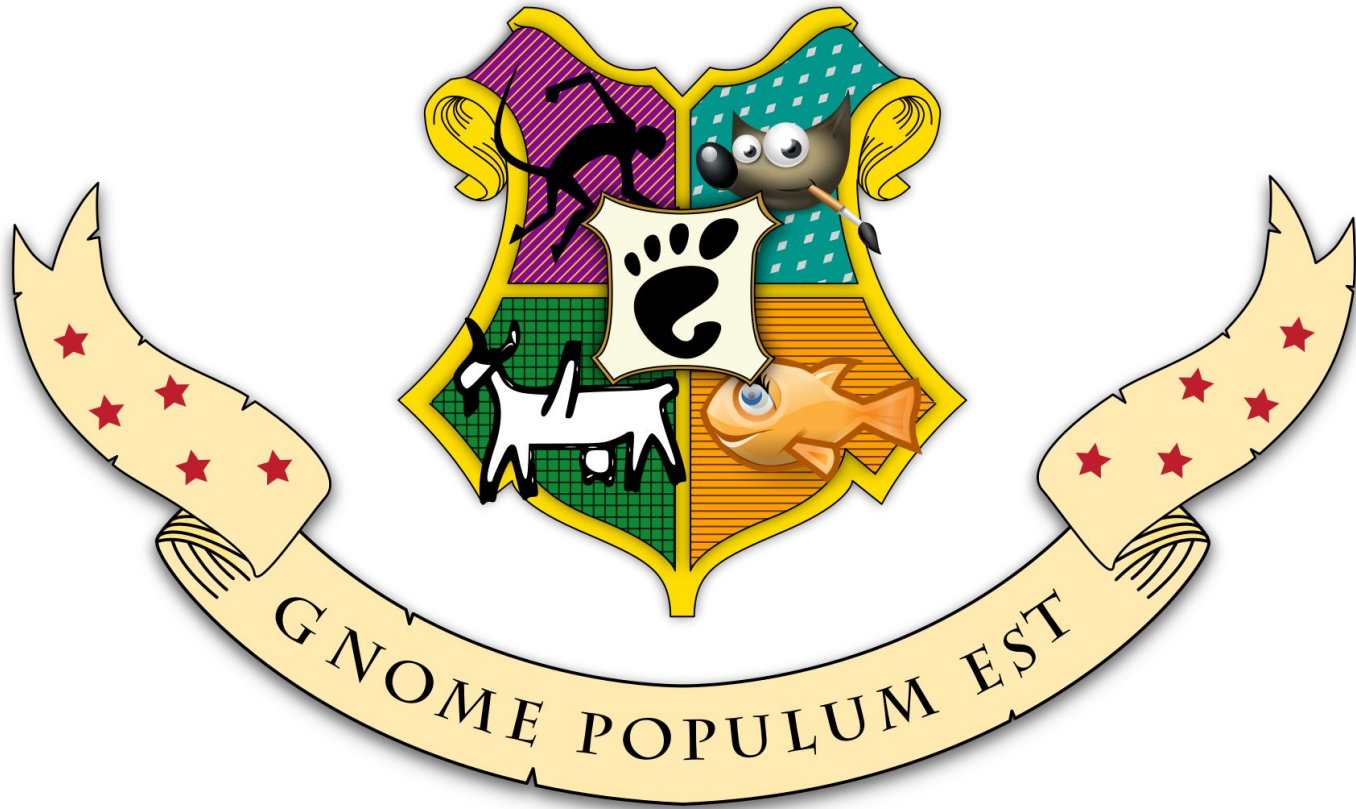




A Brief History of GNOME

Jonathan Blandford
<jrb@gnome.org>





Setting the Stage

1984 – 1997



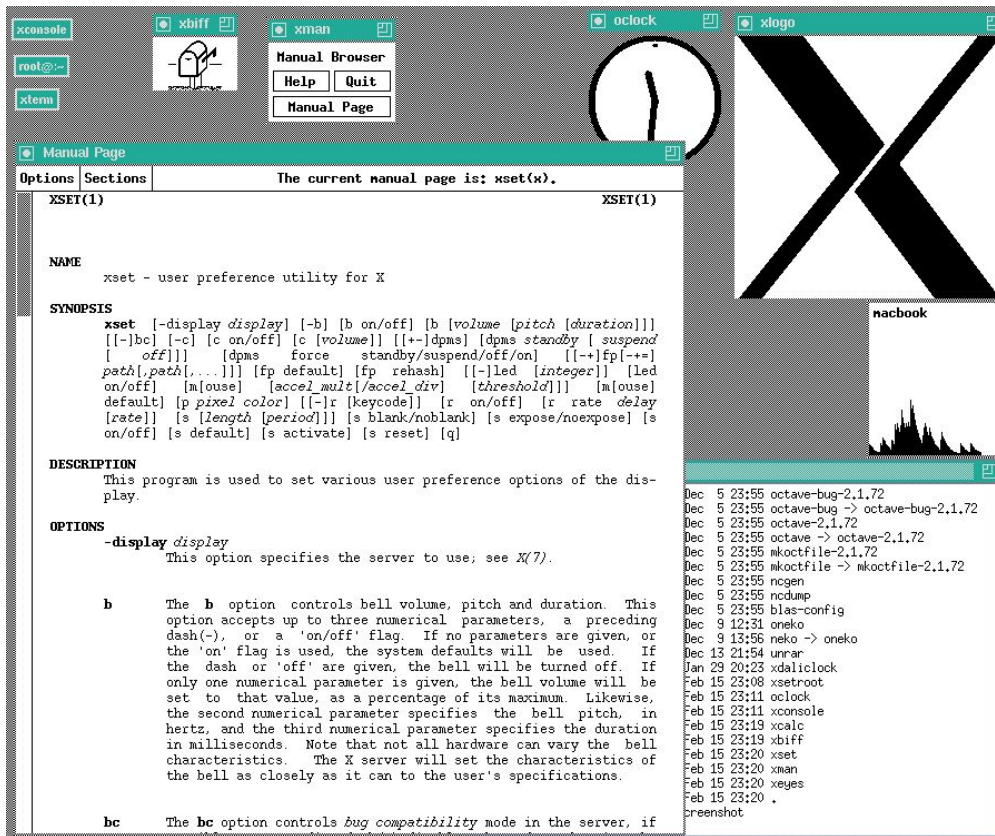
Setting the stage

- **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

twm circa 1995

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



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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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Free as in Freedom

“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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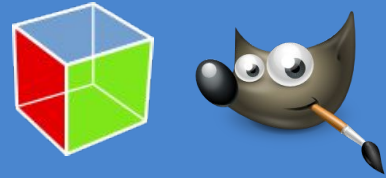
Windows 95

- 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!!

Setting the stage

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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

Setting the stage

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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....

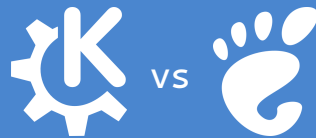
Desktop wars begin

1997

- Miguel announces GNOME Project
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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!

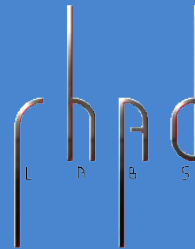
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Red Hat Advanced Development Labs

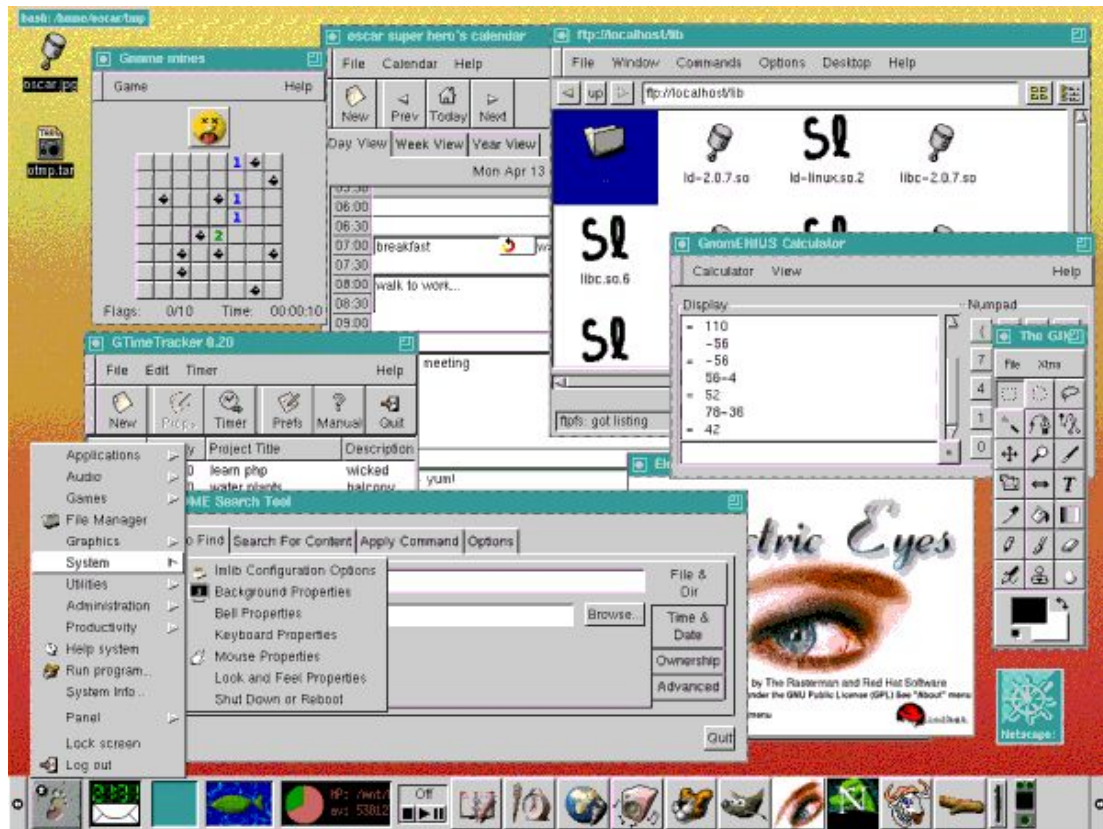
Early corporate engagement.
Seven full-time engineers
working on GNOME

Took over some of the
less-glamorous work at the
time

GNOME 0.30

September, 1998

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



Desktop wars begin

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- Project Bob



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



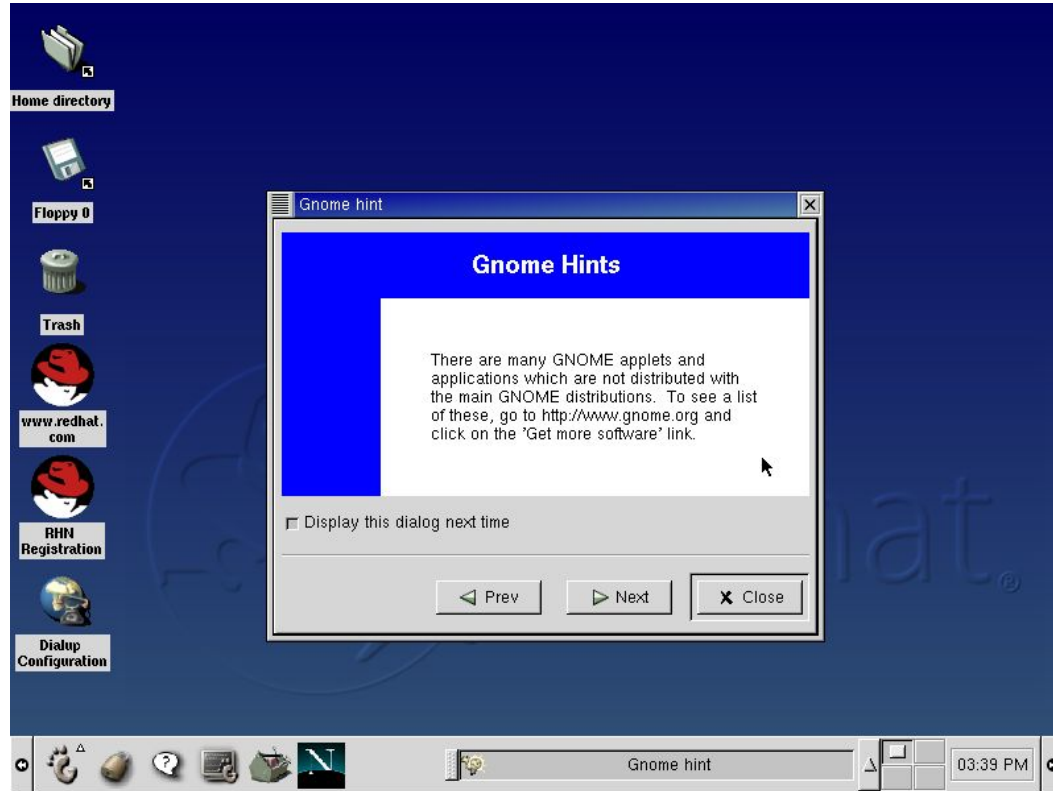
GNOME 1.0

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

1999

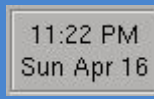
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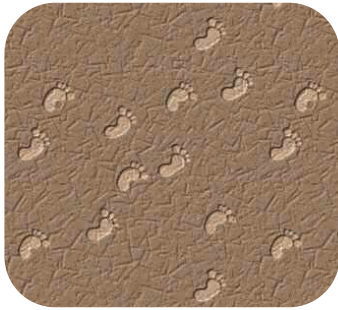
Very influential GUADEC presentation by Calum Benson

- 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



G · N · O · M · E



GNOME™

Battle for dominance

1999

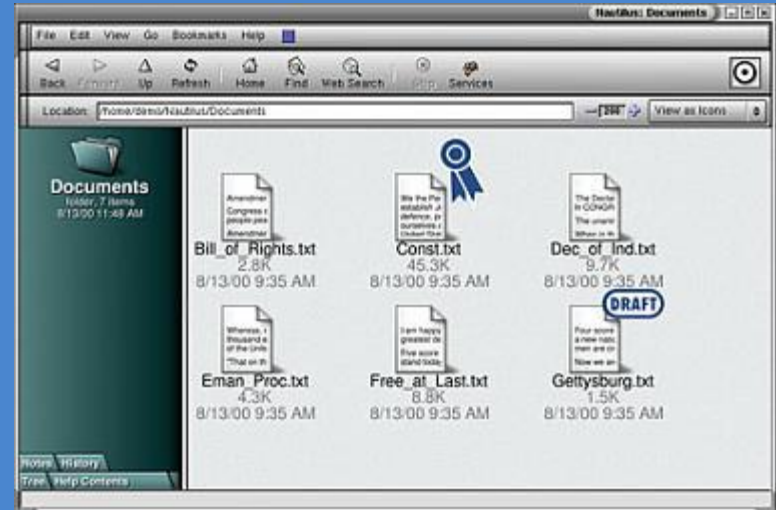
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Battle for dominance

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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)



Battle for dominance



1999

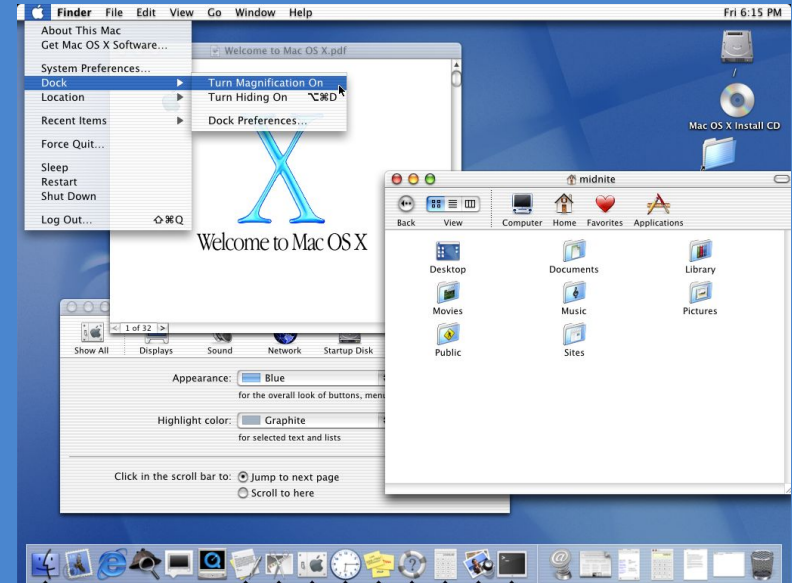
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OSX Eats our Base: Slow Decline

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*

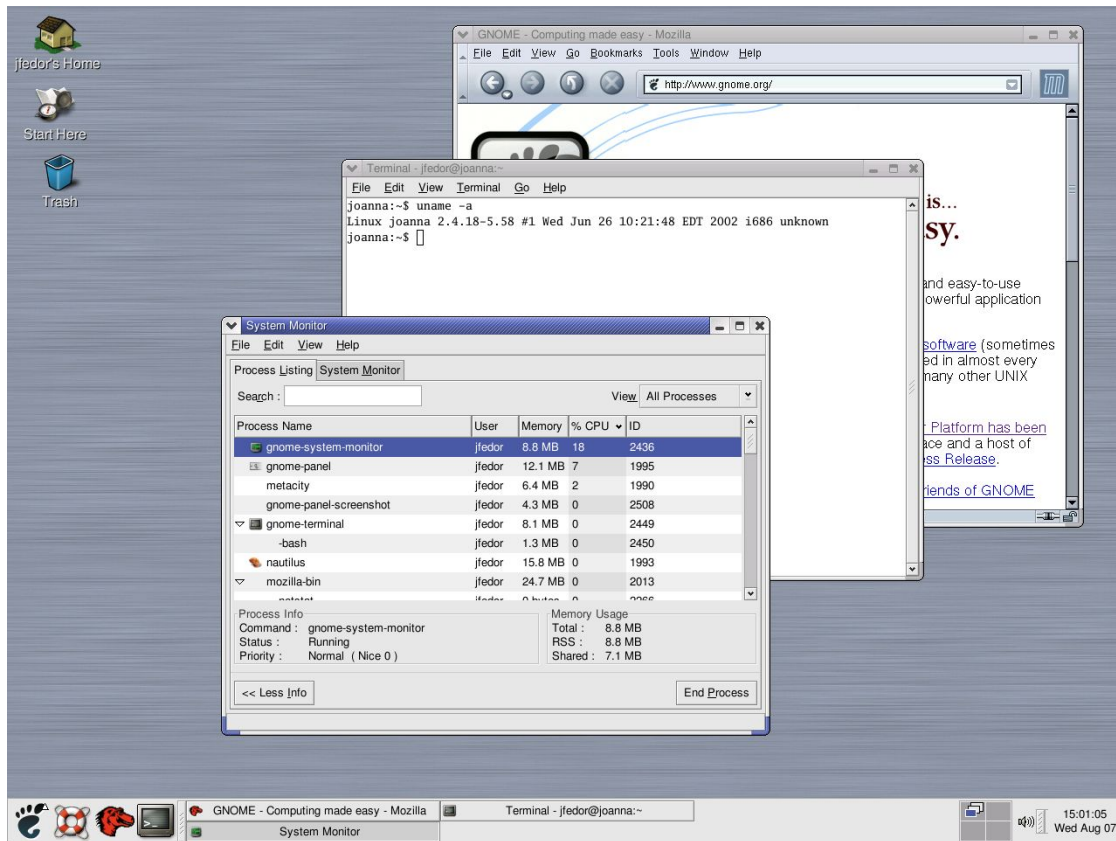
Completely controversial.
Rejected by many existing users

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

2002

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

2003

- Settings → Preferences
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2004

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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!



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



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

2002

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

2003

- **Settings** → **Preferences**
- “Just works”

2004

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- Ubuntu arrives on the scene



“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

2002

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

2003

- Settings → Preferences
- **"Just works"**

2004

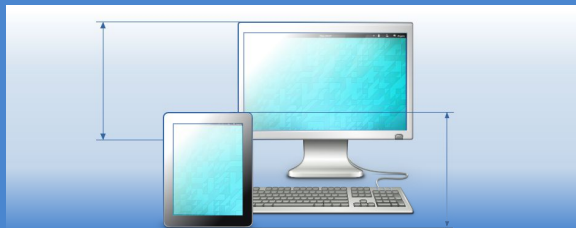
- Stateless Managed Linux
- Ubuntu arrives on the scene

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



OSX eats our base

2002

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- Accessibility

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Influential project done by Red Hat

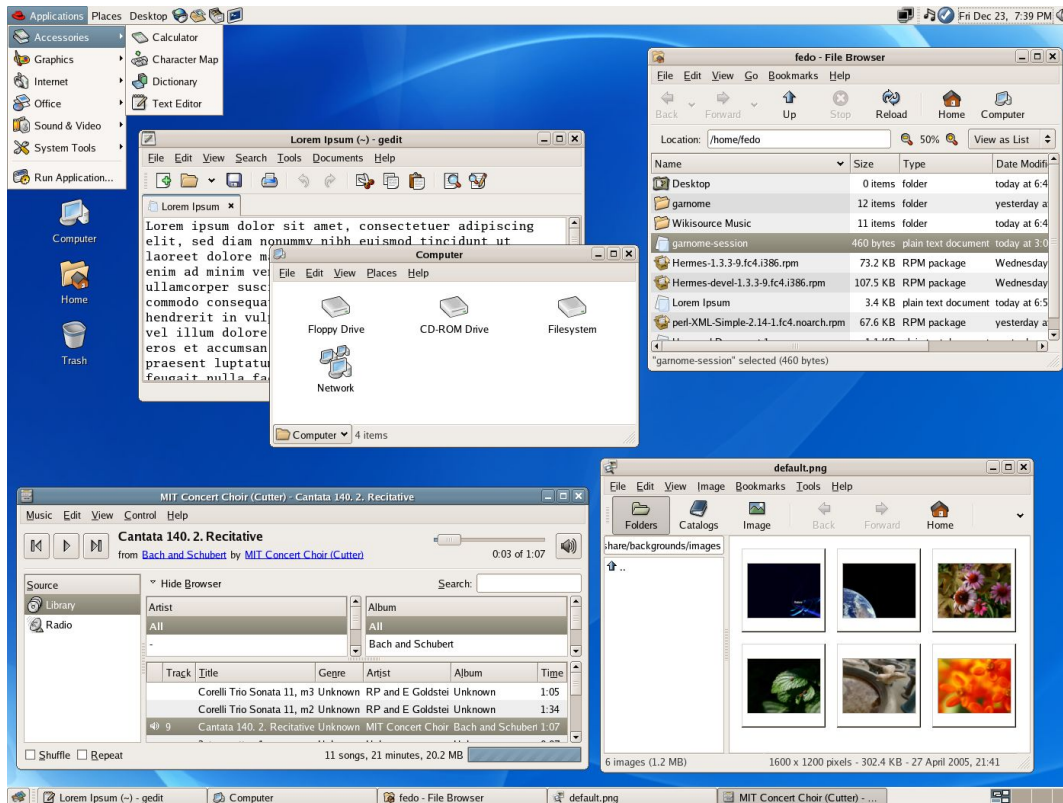
Predates systemd, Flatpak, CoreOS, ostree, Endless OS, Project Atomic by 10 years, but same model (read only root)

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

2002

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

2003

- Settings → Preferences
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2004

- Stateless Managed Linux
- **Ubuntu arrives on the scene**



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

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



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

- Nokia and Maemo
- Moblin and Intel
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- One Laptop per Child
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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

- Nokia and Maemo
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Creates Sugar based on
GNOME Technologies

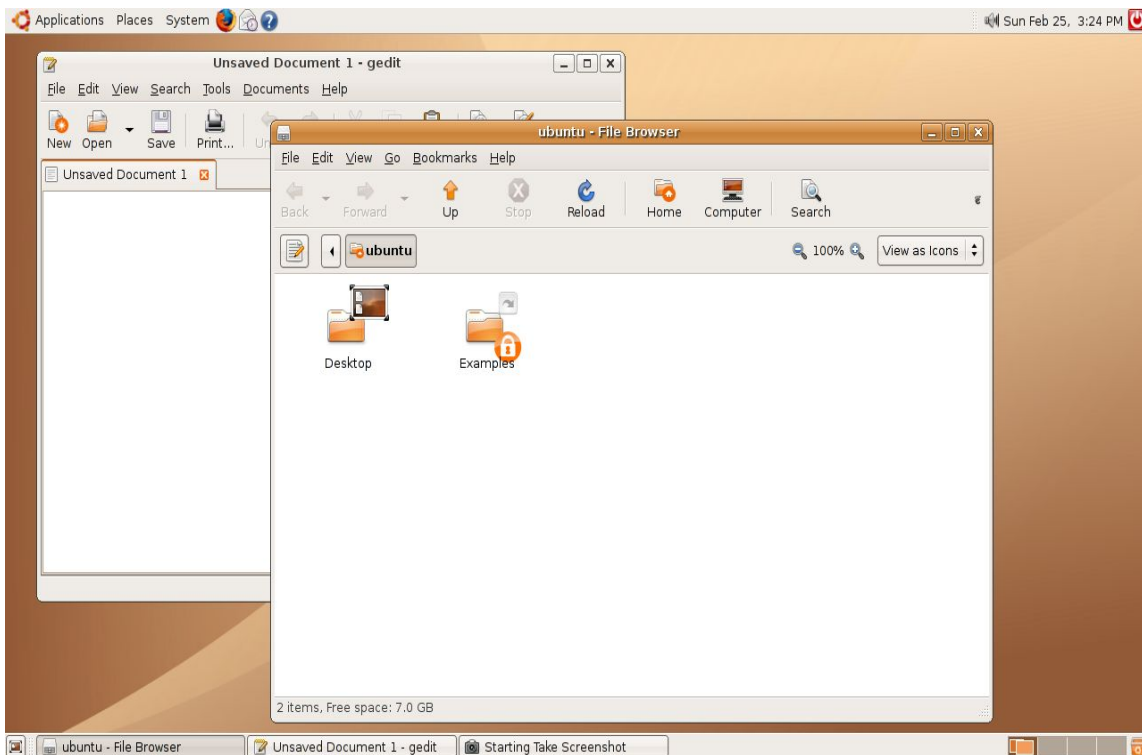
Still around in some form.
Super powerful brand, 10
years on.

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

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



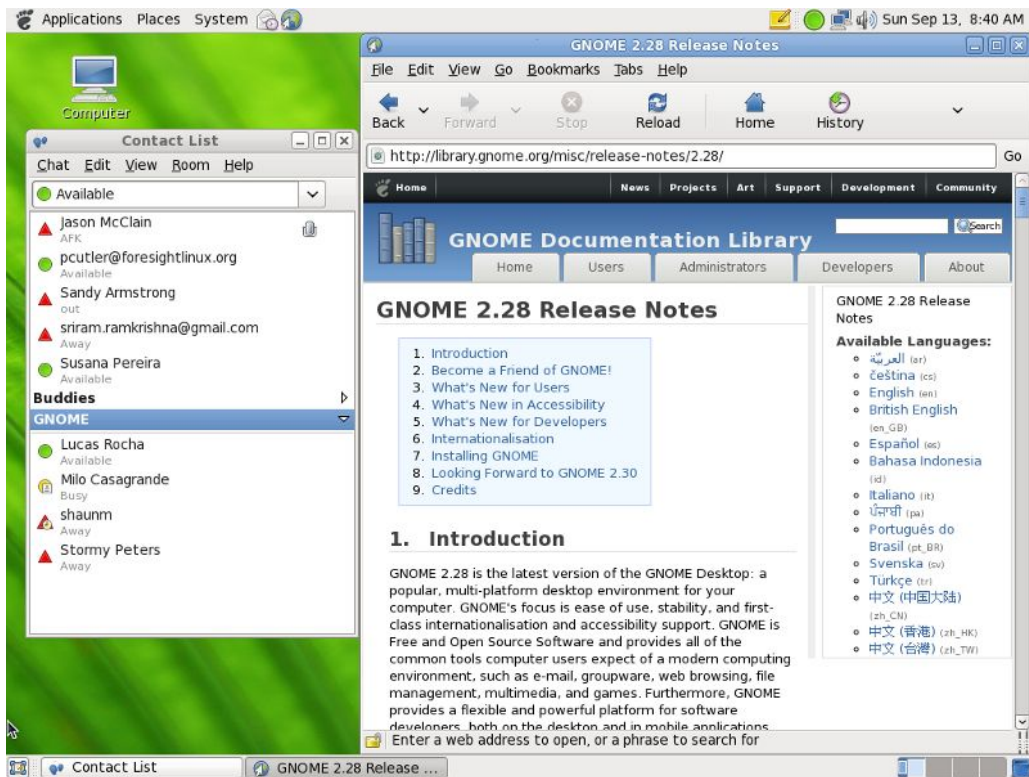
Nokia is beaten by Android and iOS

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

2009

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

2010

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2011

- GNOME 3 release
- Desktop explosion, distro discordance



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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- GNOME 3 release
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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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- **GNOME 3 release**
- Desktop explosion, distro discordance



Massive accomplishment

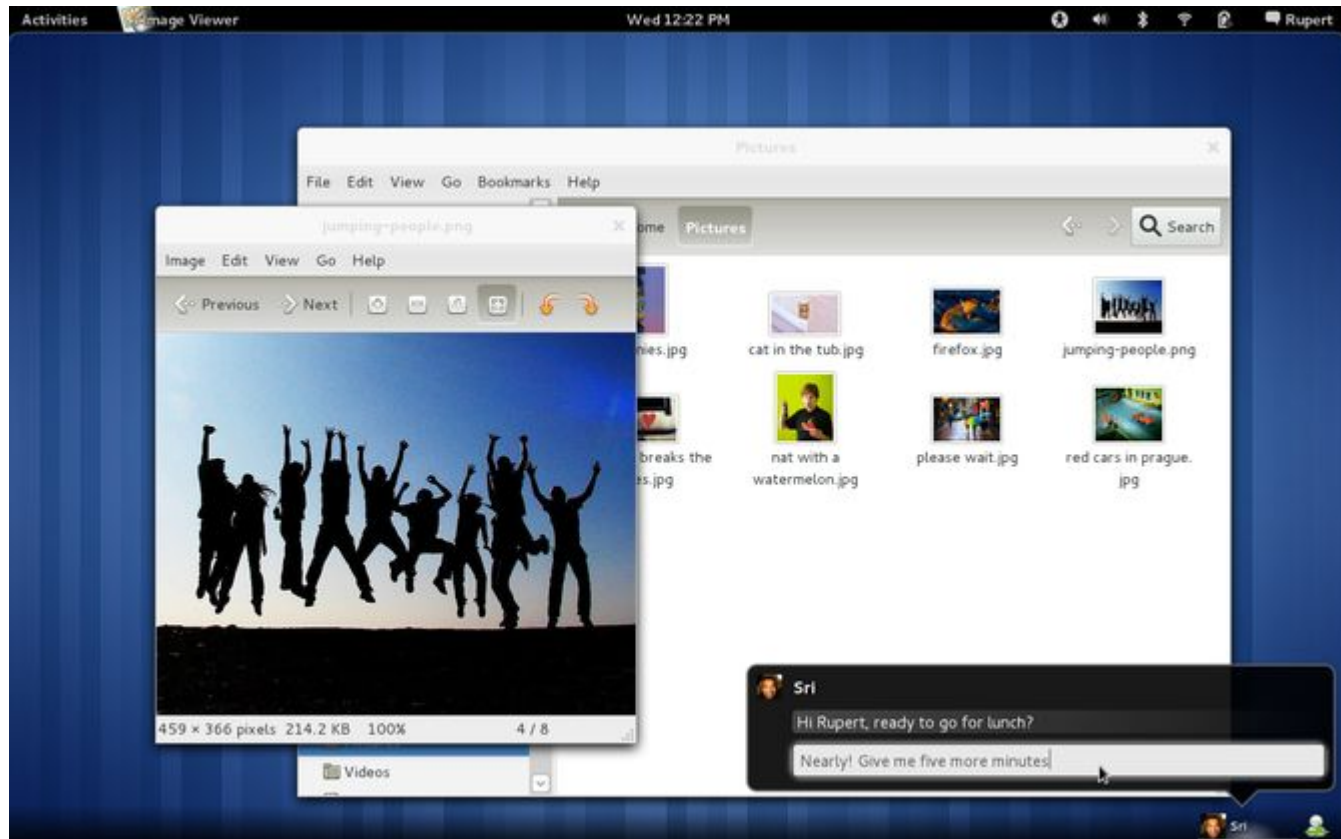
Completely controversial.
Rejected by many existing
users

Fighting against Canonical
too, this time

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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- GNOME 3 release
- **Desktop explosion, distro discordance**



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

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

2017

- Flatpak and Flathub
- Reconciliation and opportunity



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

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

2017

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- Reconciliation and opportunity

Applications:

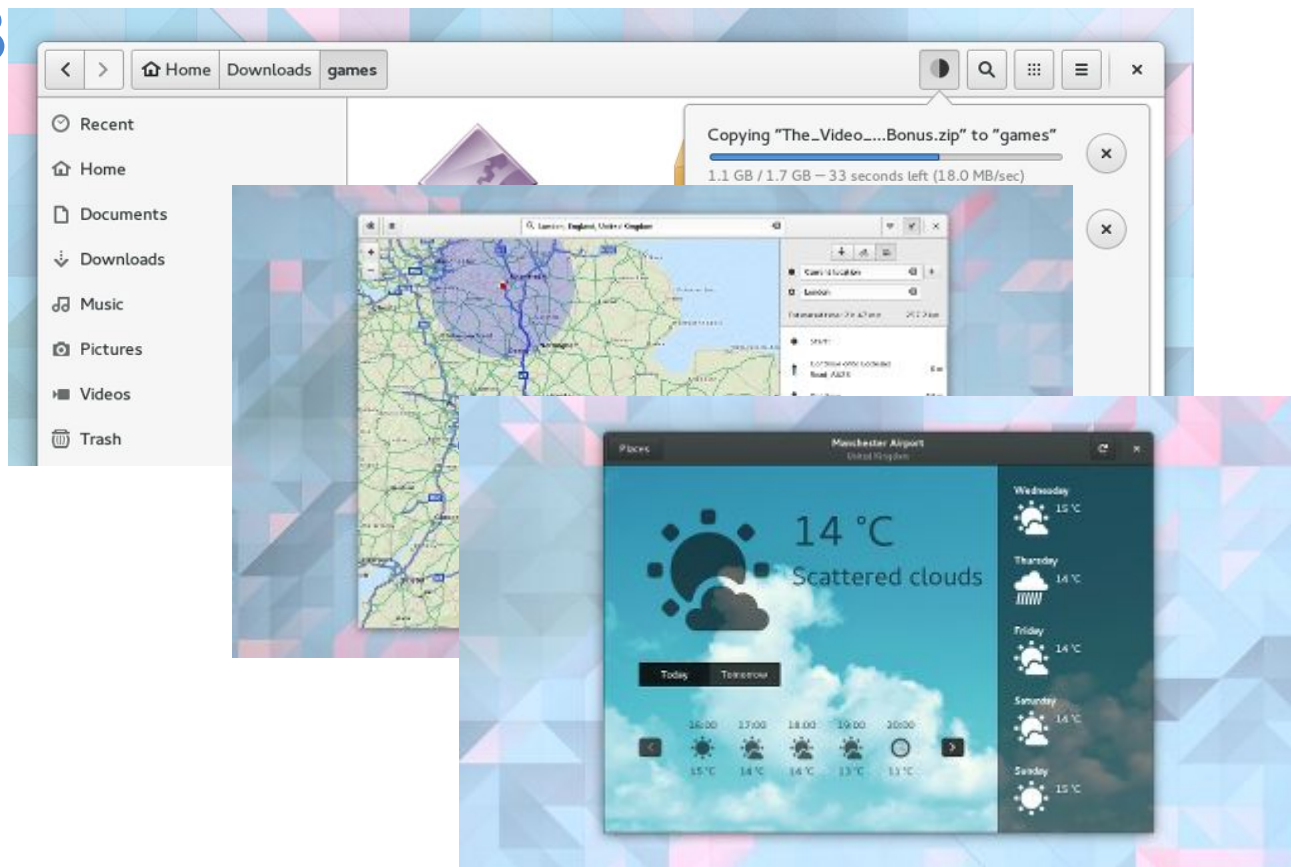
- Books
- Boxes
- Builder
- Calendar
- Clocks
- Documents
- Files
- Maps
- Music
- Photos
- Todo
- Videos
- Web
- Weather

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

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

2017

- Flatpak and Flathub
- Reconciliation and opportunity



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

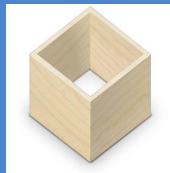
New momentum

2013–2016

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

2017

- **Flatpak and Flathub**
- Reconciliation and opportunity



Flatpak is awesome!

Flathub is here

Go forth and, uh, flatify things?

New momentum

2013–2016

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2017

- Flatpak and Flathub
- **Reconciliation and opportunity**



Ubuntu returns to using
GNOME by default!

Opportunity to heal a major
Linux division

Final thoughts

2017 and beyond

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- Robin Tafel
- Owen Taylor
- Rosanna Yuen

But most of all. Thanks to..



Questions?

