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The GNOME project provides two things: The GNOME desktop environment, an intuitive and attractive desktop for users, and the GNOME development platform, an extensive framework for building applications that integrate into the rest of the desktop.

#### GNOME is ...

#### Free

GNOME is Free Software and part of the GNU project, dedicated to giving users and developers the ultimate level of control over their desktops, their software, and their data.

#### Usable

GNOME understands that usability is about creating software that is easy for everyone to use, not about piling on features. GNOME's community of professional and volunteer usability experts have created Free Software's first and only Human Interface Guidelines, and all core GNOME software is adopting these principles.

#### Accessible

Free Software is about enabling software freedom for everyone, including users and developers with disabilities. GNOME's Accessibility framework is the result of several years of effort, and makes GNOME the most accessible desktop for any Unix platform.

#### International

GNOME is used, developed and documented in dozens of languages



#### **Developer-friendly**

Developers are not tied to a single language with GNOME. You can use C, C++, Python, Perl, Java, even C#, to produce highquality applications that integrate smoothly into the rest of your Unix or GNU/Linux (commonly referred to as Linux) desktop.



#### Organized

GNOME strives to be an organized community, with a foundation of several hundred members, usability, accessibility, and QA teams, and an elected board. GNOME releases are defined by the GNOME Release Team and are scheduled to occur every six months.

#### Supported

Beyond the worldwide GNOME Community, GNOME is supported by the leading companies in GNU/Linux and Unix, including HP, MandrakeSoft, Novell, Red Hat, and Sun.

#### A community

Perhaps more than anything else, GNOME is a worldwide community of volunteers who hack, translate, design, QA, and generally have fun together.



In 1996, the KDE project was started. Although KDE was free software, it relied on the then non-free Qt widget toolkit. Members of the GNU project became concerned with the use of such a toolkit for building a free software desktop environment. In August 1997, two projects were started in response to KDE: the Harmony toolkit (a free replacement for the Qt libraries) and GNOME (a different desktop without Qt and built entirely on top of free software). The initial project leaders for GNOME were Miguel de Icaza and Federico Mena.

In place of the Qt toolkit, GTK+ was chosen as the base of the GNOME desktop. GTK+ uses the Lesser General Public License (LGPL), a free software license that allows software to link to it. The GNOME desktop itself is licensed under the LGPL for its libraries, and the GPL for applications that are part of the GNOME project itself. Having the toolkit and libraries under the LGPL allows applications written for GNOME to use a much wider set of licenses (including proprietary software licenses). While Qt is dual-licensed under both the QPL and the GPL, the freedom to link proprietary software with GTK+ at no charge makes it differ from Qt.

The name "GNOME" was proposed as an acronym of GNU Network Object Model Environment by Elliot Lee, one of the authors of ORBit and the Object Activation Framework.(citation needed) It refers to GNOME's original intention of creating a distributed object framework similar to Microsoft's OLE. This no longer reflects the core vision of the GNOME project, and the full expansion of the name is now considered obsolete. As such, some members of the project advocate dropping the acronym and re-naming "GNOME" to "Gnome".



In August 2000 the GNOME Foundation was set up to deal with administrative tasks and press interest and to act as a contact point for companies interested in developing GNOME software.

#### **Board of Directors**

The GNOME Foundation is run by a Board of Directors, which is elected annually by the GNOME community, as the GNOME Membership, to carry out much of the GNOME Foundation's tasks. The Board of Directors meets every other week with a phone conference to discuss various topics pertaining to the regular activities of the GNOME Foundation and GNOME.

The Board of Directors for Fall 2006 through Fall 2007 is:

- Behdad Esfahbod
- Glynn Foster
- Quim Gil
- Anne Østergaard
- Lucas Rocha \*
- Vincent Untz
- Jeff Waugh

\* Dave Neary was elected, but resigned in July 2007. Lucas Rocha has been nominated to replace Dave Neary as director.



#### **Advisory Board**

The Advisory Board is made up of organizations and companies that support GNOME. The Advisory Board has no decisionmaking authority but provides a vehicle for its members to communicate with the Board of Directors and help the Directors guide the overall direction of GNOME and the GNOME Foundation.

The Advisory Board consists of representatives from the following GNOME Foundation member corporations and projects:



Advisory board member companies pay an annual fee which helps finance the operations of the GNOME foundation. There are two levels for commerical companies.

- \* Small company: 1-49 employees. \$5,000 / year
- \* Medium and large company: 50 or more employees. \$10,000 / year

No fee is paid by the invited non-profit organizations that are part of the advisory board.

#### **GNOME Membership**

The GNOME Membership consists of all the contributors to the GNOME project. Members can run for election to the Board of Directors, vote in the elections for the Board of Directors, and suggest referenda.



GNOME is built from a large number of different projects. A few of the major ones are listed below:

- Bonobo a compound document technology.
- GConf for storing application settings.
- GNOME VFS a virtual file system.
- GNOME Keyring for storing encryption keys and security information.
- GNOME Translation Project translate documentation and applications into different languages.
- GTK+ a widget toolkit used for constructing graphical applications. The use of GTK+ as the base widget toolkit allows GNOME to benefit from certain features such as theming (the ability to change the look of an application) and smooth anti-aliased graphics. Sub-projects of GTK+ provide object oriented programming support (GObjects), extensive support of international character sets and text layout (Pango) and accessibility (ATK). GTK+ reduces the amount of work required to port GNOME applications to other platforms such as Windows and Mac OS X.
- GIMP.
- Human interface guidelines (HIG) research and documentation on building easy-to-use GNOME applications.
- LibXML an XML library.
- ORBit a CORBA ORB for software componentry.

A number of language bindings are available allowing applications to be written in a variety of programming languages, such as C++ (gtkmm), Java (java-gnome), Ruby (ruby-gnome2), C# (Gtk#), Python (PyGTK), Perl (gtk2-perl) and many others. The only languages currently used in applications that are part of an official GNOME desktop release are C, C# and Python.



Freedesktop.org is a separate project to assist interoperability and shared technology between the different X Window desktops such as GNOME, KDE, and Xfce. Following freedesktop.org specifications allows GNOME applications to appear more integrated into other desktops (and vice versa), and encourages cooperation as well as competition.

Examples of technologies originated at freedesktop.org which now form part of GNOME's core technology set include:

- Cairo a sophisticated 2D vector graphics library.
- D-Bus interprocess communication system.
- GStreamer a multimedia framework.
- HAL a specification and an implementation of a hardware abstraction layer.
- Poppler a PDF rendering library.
- Tango Desktop Project which aims to provide a common visual standard across different platforms.

These initiatives aim to allow users and developers to choose the technologies and applications they like regardless of which desktop environment they use.





# Email and Calendar

GNOME's email and groupware client, Evolution, has several new features.

The new attachment warning could mean the end of those "Sorry, I forgot to attach the file" emails. If you try to send an email that contains the word "attachment" (or similar words), but don't actually attach a file, you will see a helpful warning.

Evolution's attachment warning. Screenshot! File Edit View Insert Format Security 5 Đ ~ Attach Copy Paste Send Save Draft Undo Redo Cut Andrea Cimitan <andrea.cimitan@gmail.com> From: \$ Signature: None \$ To: gnome-2.20@gnome.org Subject: Screenshot! \$ TT a a a a --Normal Hi Gnome World! I've just attached a new screenshot of gnome 2.20 :) - Andrea Cimitan Message has no attachments Evolution has found some keywords that suggest that this message should contain an attachment, but cannot find one. Do not show this message again. Show Attachment Bar Continue Editing Send



Evolution now shows an icon in your panel's notification area when you have new email. Note that, because this is currently only a plugin which is not yet fully integrated into the main preferences, you need to disable the plugin itself if you would like to disable this feature.



Moving your configuration and Email archive to a new computer is now much easier thanks to the new Backup/Restore feature.





The new "Magic Space Bar" support is hard to find, but useful - it means you need just one key to read new mails in all your folders. Just press the space bar to scroll the message preview window to the end of the email, then press it again to view the next unread email in that folder. When you've read all the emails in that folder, press it again to show the first unread email in the next folder.

Evolution's calendar feature also has some useful improvements. The search interface allows advanced searches such as those already available for email and address book searches, and you can save your searches to run them again later. The Show drop-down now provides quick access to the next 7 day's appointments and to active appointments.

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On This Computer Summary	Start Date	End Date
Personal Desktop Platform Team Meeting	Thu 09/06/2007 10:00	Thu 09/06/2007 11:00
Checa tus finanzas	Fri 08/31/2007 00:00	Sat 09/01/2007 00:00
GNOME Board Meeting. GNOME 2.20.0 Release Candidate (2.19.92)	Wed 09/05/2007	Thu 09/06/2007
GNOME 2.20.0 Release Candidate (2.19.92) Tarbal.	. Mon 09/03/2007	Tue 09/04/2007
SLES9/NLD9 SP4 Beta1 - snapshot release	Thu 08/30/2007	Fri 08/31/2007
■ GNOME Release Sched openSUSE 10.3 Beta3 Base package checkin dead.	. Fri 08/31/2007 08:00	Fri 08/31/2007 08:00
GNOME Board Meetings openSUSE 10.3 Beta3 Leaf package checkin dead	Mon 09/03/2007 11:00	Mon 09/03/2007 11:00
Suse release schedule OpenSUSE 10.3 Beta3 release	Thu 09/06/2007	Fn 09/07/2007
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In addition, the Email client now

- moves threads to the top of the list when a thread has a new Email, when using the threaded view.
- uses the standard GTK+ printing system, using the same dialog windows as other applications, while providing more printing options than before.
- allows you to choose the Spam plugin (SpamAssassin or BogoFilter) via its preferences. And SpamAssassin will now actually learn when you mark emails as Junk or Not Junk.

Users of Microsoft Exchange will welcome improvements to Evolution's Exchange support, which include:

- Access to Exchange's delegation feature so that a colleague can handle your work while you are away.
- Faster use when offline.
- Faster loading of folders.





#### <u>Web Browser</u>

GNOME's integrated web browser, Epiphany, has been subtly but significantly improved.

For instance, inline completion in the address bar is now more intuitive. When you use the cursor keys to select from the drop-down list, the current selection is shown immediately in the entry box, so it's easier to see what address will be used when you press enter. This drop-down menu lists addresses from both your history and bookmarks, and it now shows the web site icons (favicons) for history items, as it already did for bookmark items.

The web browser, showing bookmarks and history in the address bar, with favicons.







## Image Viewing

GNOME's image viewer, eog, is now faster and more stable. The new image properties dialog provides easy access to basic information and metadata for your images, and now includes XMP (Extensible Metadata Platform) data that your camera or software might store in your image files, along with the existing EXIF data. This might include location, copyright information, license, and tags.

And you can now easily open an image in another application, such as the GIMP, by using the new "Open with..." menu item. When you've made your changes and saved the file then your picture will be updated in the image viewer automatically. This is also available in the new right-click menu in the image collection pane, at the bottom of the window, along with other useful actions. That image collection now has large vertical buttons at the left and right, making it easier to browse through your pictures.



#### The Image Viewer, with the properties dialog and the Open With menu.

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#### **Document Viewer**

GNOME's Evince viewer, for PDF and Postscript files now supports interactive PDF forms, allowing you to enter information into a PDF that you receive, to save or print. Page rendering in the new version is now noticeably faster.

#### The Document Viewer, editing a form.

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# Sound and Video

Not all distributions like to install all multimedia codecs by default, due to the need to obtain patent licenses for some codecs in some countries. This means that applications can not always read every file format by default. But applications such as GNOME's video player, Totem, can now offer these new codecs to the user for installation. This is actually implemented by your distribution, which may make its own decisions about how to obtain the codecs. Here's how it looks in Ubuntu:



Totem's support for embedded videos in web pages has also improved, supporting more web pages, showing a pulsing play button when you need to press play to start the video, and now allowing you to go into full-screen mode from the web page.



# **Note-Taking**

Tomboy, the GNOME note taking application, has also added some significant new features, the first of which is note synchronization. Tomboy can now use WebDAV or ssh to connect to a remote server and synchronize all the notes that a user has made. This allows for users who use multiple computers to keep one set of synchronized notes between all the machines. Simple conflict resolution between the server and the Tomboy clients ensures that there is no data loss in case of a note conflict.



Tomboy with notes synchronized between two computers.

Furthermore, Tomboy now remembers your open notes, showing them again when you restart the application.





# Text Editing

GNOME's simple but powerful text editor, gedit, has an all-new syntax-highlighting system which now supports syntax highlighting for scripting languages such as PHP and Ruby even when embedded in HTML, as well as highlighting of text such as "TODO" or "FIXME" inside code comments, and highlighting of gtk-doc source code documentation.

You can even choose from several color schemes in case you are already familiar with the colors used by a different text editor.

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	Help				

The text editor's color schemes.





# File Management

The file chooser dialog now shows the recent files list and can use desktop search systems such as Beagle or Tracker, making it easier to find your files when you need them, without interruption.

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The Nautilus file manager now shows more information in the "Properties" window for drives, including a pie graph that easily shows how much space is left. In addition, you can now see the overall disk usage in the Disk Usage Analyzer utility.

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ľ	Basic Emblems Permissions Notes Link
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	Type: desktop configuration file
	Size: unknown
	MIME type: application/x-desktop
	Modified: unknown Accessed: unknown
	5.2 GB used
	Total capacity: 9.3 GB
	Filesytem type: ext3



The file manager also now uses the EXIF camera information in some image files to rotate its thumbnails when appropriate. This means that, when you take a picture with your camera and import it into GNOME, the orientation of the thumbnail will be correct, whether it was taken as landscape or portrait.



The file manager showing correctly orientated image thumbnails.

The file-roller archive manager can now open and save archives from networked locations, such as mounted ssh:// servers, by using the same gnome-vfs system that is already used by other GNOME applications. It is also now possible to copy/paste and drag-and-drop files between archives.



#### **Panel**

The GNOME Panel can be seen at the top and bottom of your screen in most distributions. It has some small but helpful improvements in GNOME 2.20. For instance, the Window List applet no longer resizes its buttons whenever the length of window titles change. This avoids annoying resizes when changing tabs in your web browser. And the Window Selector applet now sorts its drop-down list by workspace.

Users of "floating panels" (which don't expand to fill the whole screen width) might notice that these panels now remain in the correct position and alignment when changing screen resolution. More work to improve the repositioning of panel applets when changing screen resolution is planned for GNOME 2.22.





# Control Panel

For GNOME 2.20, the control panels have been reorganized slightly to reduce the number of control panels, making it easier to find what you need.

For instance, this release marks the debut of the new Appearance control panel applet. The Theme, Background, Fonts, and Interface applets have been merged to create this new applet, simplifying the Preferences menu.

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In addition, some of the Accessibility preferences have been moved to a new tab in the Preferred Applications control panel.

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The Accessibility tab in the Preferred Applications control panel.



Wireless users may also welcome the new support for WPA encryption in the Network control panel.





## Password Management

The GNOME Keyring system remembers your passwords for networked servers and web sites. In GNOME 2.20, the keyring is unlocked automatically when you login and when you unlock your screen, avoiding the need for an extra password prompt. Note, however, that this feature requires some work by your distribution. You can now also change your keyring's master password via the Encryption Preferences control panel, in the GNOME Keyring tab.

The Keyring tab in the Encryption Preferences control panel.





The Password and Encryption Keys utility now shows more notification details when you import keys, and allows you to choose the archive type when encrypting multiple files.

Encrypting multiple files.					
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		Encrypt packed together	er in a package		
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# Help System

This release has seen some large changes in the infrastructure of the GNOME help browser (yelp), improving the style and layout. In addition, the colors now better match your current theme.

Help pages also now appear more quickly, as individual pages are now loaded on demand instead of the entire manual being parsed unnecessarily.



The help browser.





# Power Manager

GNOME's Power Manager now saves profile information about your batteries over time, to provide a far more accurate estimation of the time remaining, even with old worn-out batteries. It even knows about many battery models that have been recalled by their manufacturers.



Several parts of GNOME, such as the volume mixer have also been corrected to remove unnecessary polling, resulting in power savings.





# Login and Screensaver

Users could already choose their preferred language when logging in to GNOME, but now they can even see the login screen in their own language as soon as they choose it, thanks to an improved GDM (Gnome Display Manager).

The GNOME Screensaver now allows people to leave you a note while your screen is locked, by clicking the "Leave Message" button. You'll see these messages when you login.

Notes left for you while your screensaver was active.







# Right-To-Left Languages

Languages such as Farsi and Hebrew are written from right to left. Users of these languages expect most user interface elements to be similarly mirrored, compared to left-to-right user interfaces. GNOME 2.20 improves the support in the following ways when using these languages:

- Window title buttons (such as minimize, maximize, and close) appear in mirrored order.
- Window title menu items are now aligned to the right.
- The alt-tab window switcher lists and moves through windows from right to left.
- The ctrl-alt-arrow workspace switcher lists and moves through workspaces from right to left,

# **Whats new in 2.20?**

Switching windows when using Farsi. Notice the reversed buttons in the window title bars.







# **Accessibility**

GNOME's accessibility support can be customized to allow people with a range or disabilities to use GNOME. The Orca screen-reader is a key part of this support, using speech synthesis, braille, and magnification to assist people with visual impairments.

Orca's main advantage is its application-specific support. This means that it has an understanding of the specific user interaction models of particular applications in addition to the general meta-information available via the ATK toolkit (and the AT-SPI system). For instance, the latest version adds greatly improved support for OpenOffice, Firefox, Thunderbird, Pidgin (previously known as GAIM) and Java applications. It also now deals with progress bars, tooltips, and notification messages, and can use custom pronunciations for special words.



# Lockdown and User Profile Editor

The "Sabayon" User Profile Editor allows administrators to set up user profiles inside a live, interactive GNOME session. When a profile is created or edited, a nested GNOME session is started up, which the administrator can use to change GConf defaults and mandatory keys in their own GNOME session.

Within the nested window a system administrator can create personalized profiles based on job description (e.g. receptionist, data entry clerk, programmer, human resources manager, etc.). These profiles can then be saved and deployed to various desktop machines with ease, saving the system administrator time. The profiles can also be modified and fine tuned as needed based on user feedback. Since they are in a centralized location they allow easy maintenance and deployment.

In GNOME 2.20 the User Profile Editor can also be used to set default preferences for OpenOffice applications in addition to the existing support for GNOME and Mozilla applications.

# **Whats new in 2.20?**







# **GDM (GNOME Display Manager)**

GDM now has better utmp/wtmp auditing, so when users log in or log out entries are placed in /var/adm/utmp and /var/adm/wtmp. For instance, this allows programs such as who and finger to use the utmp database to get information about who is on the system. In addition, support for Linux auditing, via libaudit, logs the success or failure of each login attempt with the Linux kernel audit system.

GDM can also now use RBAC (Role Based Access Control) to control access to the Shutdown, Reboot, and Suspend features.


## <u>GTK+</u>

GNOME 2.20 uses version 2.12 of the GTK+ UI toolkit API, which adds new features and important bug-fixes. The largest changes are:

- A new GtkVolumeButton widget, for use by media players.
- A new GtkRecentAction class to provide recent-files menu items.
- An improved GtkTooltip API, which is much more convenient and powerful than the now-deprecated old GtkTooltips API. For instance, this allows tooltips in GtkTreeViews, and on insensitive widgets.
- The new GtkBuilder API, which can build user interfaces from XML descriptions, intended to replace libglade soon.
- Support for some simple graphical effects, where the hardware and drivers support them, via functions such as gdk\_window\_set\_composited() and gdk\_window\_set\_opacity().
- New input methods for the Thai and Lao languages, plus a mobile-phone-style multipress input method for embedded devices.
- The built-in stock icons were updated to comply with the Tango freedesktop specification, so the appearance of GNOME applications is even more consistent with other toolkits and desktops.
- The GtkFileChooser now shows the recent files list, and can be integrated with desktop search systems such as Beagle and Tracker, as mentioned above in the File Management section.



## <u>Glib</u>

The Glib utility library now has a g\_get\_user\_special\_dir() that provides the path to special folders defined by FreeDesktop.org's xdg-user-dirs specification and tool.

And for text processing, the new GRegex API provides regular expression string matching without the need for an additional library.



#### Pango

The Pango text rendering system has several improvements.

For instance, it has a new shaping engine for the N'Ko script used by the minority Mande languages in West Africa. These languages have not been well served by computer systems until now.

An example from the N'Ko shaping engine.

The improved OpenType layout engine helps Pango to select the correct Glyph depending on the current language.

Pango's OpenType layout engine choosing the correct glyph.

Rendering U+0431 CYRILLIC SMALL LETTER BE using DejaVu Sans:

Russian: δ Serbian: δ

In addition, the new version of Pango has:

- Support for specifying multiple preferred languages.
- Vertical text shaping that uses vertical variants of punctuation marks.
- New pango\_cairo functions, allowing simpler use of Pango with Cairo.



## Glade

The Glade user interface designer is much improved, adding user interface and architectural improvements. For instance, tool windows, such as the editor, the inspector, and the palette, are now dockable.

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Glade with an undecked window

And you can now right-click on widgets to conveniently make some of these changes:

- Add or remove the parent widget.
- Insert or remove a placeholder before or after the selected widget in a GtkBox. •
- Insert or remove a page before or after the selected page in a GtkNotebook.
- Insert or remove a row or column in a GtkTable.

Library authors will be pleased to see that new widgets may be declared in the catalog without the need to write supporting source code, allowing developers to use your extra widgets in Glade.



## **Accerciser**

The new accerciser Accessibility Explorer allows you to check whether your application provides the information needed by accessibility tools such as GNOME's Orca screenreader.

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The Accerciser utility examining an application's user interface.



## **Developer Documentation**

GNOME's new documentation website, library.gnome.org, lists all the latest tutorials, manuals and API references. It's the result of a Google Summer Of Code project which ensures that the online documentation stays up-to-date, even showing several versions of the same documents, in multiple languages too.

This includes the new Overview of the GNOME Platform document, which is now an official part of GNOME's software releases, in the gnome-devel-docs module. It's a good place for new GNOME developers to start.

For offline documentation, we strongly encourage the use of the DevHelp utility, particularly when searching for function or class names, though you must remember to install the relevant documentation packages from your distribution. DevHelp is also now part of GNOME's official Developer Tools release.



#### GNOME's new online library of developer documentation.





## **Internationalization**

Thanks to members of the worldwide GNOME Translation Project, GNOME 2.20 offers support for 48 languages (at least 80 percent of strings translated), including the user and administration manuals for many languages.

Many other languages are partially supported, with more than half of their strings translated.



GNOME Mobile will advance the use, development and commercialization of GNOME components as a mobile and embedded user experience platform. It brings together industry leaders, expert consultants, key developers and the community and industry organizations they represent.

#### Mission

- Increase community and commercial visibility of GNOME Mobile technology and participating organisations.
- Co-ordinate investment in the GTK+ and GNOME platform, documentation and developer tools.
- Increase development focus on the "mobile experience", particularly the integration of GNOME desktop and GNOME Mobile technology.
- Facilitate healthy development collaboration between participating organisations, the GNOME community and related projects; and between GNOME platform, desktop and GNOME Mobiledevelopers.
- Pursue standardisation opportunities for the platform, and potentially at the user experience level.
- Ensure that Software Freedom is a reality beyond the desktop, and available in the hands of users around the world.

#### Devices











#### The GNOME Mobile Platform

The GNOME Mobile Platform is a subset of the proven, widely used GNOME Platform. The platform definition announced today represents components that are currently shipping in production devices, but GNOME Mobile participants are planning to grow the platform aggressively in the next twelve months, to enable new technologies and functionality.





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The One Laptop per Child association (OLPC) is a Delaware, USA based, 501(c)(3) non-profit organization, created by faculty members of the MIT Media Lab, set up to oversee The Children's Machine project and the construction of the XO-1 "\$100 laptop". Both the project and the organization were announced at the World Economic Forum in Davos, Switzerland in January 2005. According to the home page of the project's wiki at laptop.org, "OLPC espouses five core principles: (1) child ownership; (2) low ages; (3) saturation; (4) connection; and (5) free and open source."

OLPC is funded by a number of sponsor organizations, including AMD, Brightstar Corporation, eBay, Google, Marvell, News Corporation, SES, Nortel Networks, Red Hat, and most recently Intel. Each company has donated two million dollars.



Olpc vs. macbook



Third generation olpc





# Poky

Poky is an embedded Linux build system, distribution and developer environment which builds upon OpenEmbedded technologies. Poky's focus is purely on building stable optimised GNOME Embedded type platforms (X11/Matchbox/GTK+) together with a streamlined system layer and cross development environment.

#### Sato

Sato is our experimental reference/example GTK+/Matchbox based PDA/smartphone like user interface environment aimed primarily at handheld devices with very high DPI VGA displays. It features a full suite of PIM applications, multimedia playback, web browsing, games and more.







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Poky was originally created as an internal tool by the developers at OpenedHand to help with device software development, configuration, debugging and profiling. We hope others can benefit from it also and contribute to improving it further.

Poky was selected by Vernier Software and Technology to form their base development and build environment for their 'LabQuest' device. Its flexibility, pre-packaged and easily customisable GNOME embedded environment, ability to be quickly ported to new hardware platforms and virtual emulation under qemu proved invalueable in the LabQuests development, saving both time and developer effort required.





#### 投 орептоко

OpenMoko is a project in the early stages of development to create a software platform for smartphones, using free software.

The aim is to create a general-purpose Linux distribution for mobile phones.

#### Components

OpenMoko uses the Linux kernel, together with a graphical user environment built using the X.Org Server, GTK+ toolkit and the Matchbox window manager. The OpenEmbedded build framework and ipkg package system are used to create and maintain software packages.

#### **Release history**

OpenMoko was announced in 2006 by its founders First International Computer (FIC).

The first supported phone, the Neo1973 was released on July 9, 2007, sold exclusively through openmoko.com. The version released (internally called GTA01) is dubbed a "developers only" release, costs US\$300 and can be used with any GSM carrier. This phone can also run the Qtopia user interface, although it is neither developed nor supported by the manufacturer.











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*maemo*<sup>™</sup> » code in your hands

Maemo is a Linux-based(Debian GNU/Linux) development platform for handheld devices. It is used by the Nokia 770 Internet Tablet, and its successors, the Nokia N800 and N810. The GUI is derived from the earlier Series 90 UI for the Symbian OS, as used on the Nokia 7700 and Nokia 7710 smartphones. As well as Nokia's Internet tablets, Maemo will be the GUI for the forthcoming Ubuntu Mobile and Embedded Edition of Ubuntu Linux.

The free and open source components are well-known desktop Linux libraries to make application porting trivial.

Development for Maemo is done with the Scratchbox cross-compilation toolkit.















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Clutter is an open source software library for creating fast, visually rich and animated graphical user interfaces.

Clutter uses OpenGL (and optionally OpenGL ES) for rendering but with an API which hides the underlying GL complexity from the developer. The Clutter API is intended to be easy to use, efficient and flexible.

Clutter currently features the following:

- Object oriented design via GObject with a familiar GTK+ like API.
- Scene-graph of interface elements with multiple layers, positioning in 3D space, grouping, transparency, scaling, clipping and rotation.
- Input event handling.
- Frame based animation engine providing path interpolation, transitions and other custom effects via Behaviours and Timelines.
- Custom Pango renderer providing efficient internationalized text rendering.
- Support for media playback with GStreamer, Cairo graphics rendering and GTK+ embedding are available via optional add-on libraries.
- Language bindings for Perl, Python and Mono
- Backend windowing system support via GLX, SDL and EGL

Clutter is free software released under the GNU LGPL.



obligatory simple video player shot.





#### Clutter embedding in GTK+

Gtk-Clutter Interaction demo		
You can use Clutter within your program, like it was any other widget!		
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Clutter Cairo Flowers demo.





#### 'OPT' slideshow program.

Navigating with OPT. Hello! Any key to advance to next slide. This is a simple 'OPT' demo presentation • 'r' or left arrow to go back. OPT is a simple presentation program built with Clutter by folks at OH. 'm' for menu, 'q' quits. Presentations are built with simple XML files. You can also use mouse buttons. Press any key to go on...



'Fluttr' flickr browser





#### **GNOME 3.0**

There are no plans for a GNOME 3.0 release at this time. The GNOME community believes that regular, reliable, iterative improvements are more important to our users than ground-shaking major releases, and that we can more comfortably deliver major features -- when they're ready -- in our regular, six-monthly releases.

We made a substantial API/ABI break for GTK+ and GNOME 2.0, which was a massively beneficial change for our platform, and has allowed us to maintain a stable branch for a significant period of time. We're still deriving enormous benefit from the break and the stability. As such, we do not plan to do the same again soon.

- A major rewrite or API break won't provide any benefit to our users, contributors, or independent developers creating software based on the GNOME platform.
- A major rewrite or API break is not at all necessary to achieve our goals for or enhance active development on the GNOME experience in the forseeable future.
- A major rewrite or API break won't have a positive impact on the broadening ecosystem around the GNOME platform, such as activity around mobile and embedded device development with GTK+ and GNOME.



#### **Project Ridley**

#### Goals

Project Ridley is an effort to consolidate a number of external libraries into GTK+.

These libraries are generally small, undermaintained, and buggy. They have an unclear mission (such as libgnome and libgnomeui) or would benefit by being in GTK+ (such as libgnomeprint and libgnomeprintui.)

### **Target Libraries**

- libgnome (2/7)
- libgnomeui (2/7)
- libgnomeprint22 (2/2)
- libgnomeprintui22 (2/2)
- libglade (1/1)
- libgnomecanvas (0/1)
- libegg (4/9)
- libeel (0/1)
- gtkglext (0/1)





## **Brasero**





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## **Big Board**





