

*Conociendo Gnome3*



2013

## Índice

Introducción	4
¿Que es Gnome?	4
¿Que es Gnome Shell?	5
Críticas	5
Respuesta de la comunidad de GNOME	6
Consecuencias	7
Novedades de Gnome 3.8	7
Lanzar aplicaciones	7
Buscar	7
Privacidad y compartición	7
Relojes	7
Renderizado de animaciones mejorado	8
Modo Clasico	8
Métodos de entrada	8
Detalles	8
Instalar Gnome 3	9
Configurar y mejorar la apariencia de Gnome3	9
Algunas "dependencias"	10
Instalar la gnome-tweak-tool	10
Activar Click secundario en el escritorio e íconos	10
Extensiones útiles en Gnome-Shell	10
El tema GTK y de íconos	11
Tema del Shell	11
Hacer más agradable la terminal	11
Aplicaciones Predeterminadas	12
Forzar el Modo "Fallback"	12
Conclusión	12
Bibliografía	14
GNU Free Documentation License	15

**Copyright (C) 2013 Hillairet, Exequiel.**

**Permission is granted to copy, distribute and/or modify this document under the terms of the GNU Free Documentation License, Version 1.3 or any later version published by the Free Software Foundation; with no Invariant Sections, no Front-Cover Texts, and no Back-Cover Texts. A copy of the license is included in the section entitled "GNU Free Documentation License".**

## Indroducción

<<"Aparentemente los desarrolladores han decidido que es 'demasiado complicado' hacer verdadero trabajo en su escritorio, y han decidido que fuera realmente irritante hacerlo">> Fue la dura crítica proveniente de Linus Torvalds hacia la nueva versión de Gnome, ya que fue una trancisión difícil para los acostumbrados usuarios de Gnome2 dar un salto en el paradigma de entornos hacia Gnome3.

Este informe se propone hacer un análisis constructivo sobre tan controversial entorno de escritorio. Desarrollando los aspectos y características mas importantes y evaluando sus detalles de usabilidad.

### ¿Que es Gnome?

Gnome (**GNU Network Object Model Environment**) es un entorno de escritorio para sistemas operativos GNU/Linux, Unix y derivados, nacido como alternativa a KDE y compuesto completamente por software libre. Formando parte oficial del proyecto GNU.

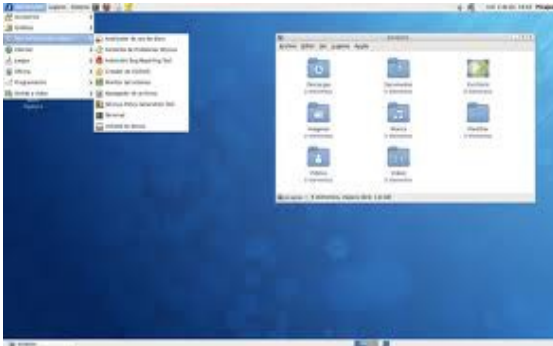
El proyecto Gnome comprende de un gestor de ventanas intuitivo, versatil, sencillo, y muy eficiente. Se originó enfocandose en la simplicidad, usabilidad y rendimiento que un usuario desearia.



Asegurando la accesibilidad para cualquier tipo de usuario, contando con código fuente disponible para reutilizaciones bajo una licencia de software libre, y con una comunidad en crecimiento, Gnome se transformo en el entorno de escritorio favoritos de muchos usuarios de GNU/Linux.

## ¿Que es Gnome Shell?

Gnome Shell es la interfaz de usuario básica del entorno de escritorio Gnome. A partir de su version 3.0 y actualmente en su versión 3.8, referente a este informe, reemplaza su modelo clásico de escritorio usado en versiones anteriores...



## Críticas

Entre los críticos de la nueva versión está Linus Torvalds, diciendo que: "aparentemente los desarrolladores han decidido que es 'demasiado complicado' hacer verdadero trabajo en su escritorio, y han decidido que fuera realmente irritante hacerlo". Torvalds citó problemas de usabilidad de GNOME 3.0. Además indicó que sus objeciones fueron universalmente sostenidas por la variedad de desarrolladores Linux que él conocía.

Stephen Ewen, desarrollador líder para UberStudent, ha citado ejemplos demostrando que el GNOME 3.0 es un "obstáculo" a la productividad computacional académica del estudiante. Adicionalmente sostuvo que los problemas de usabilidad de GNOME 3.0, comparado con su versión anterior, colocaron en gran parte al mundo del escritorio Linux en lo que describió como "crisis". Indicó que esto fue provocado porque los desarrolladores de GNOME se habían "vuelto personalmente cautivados con los Macs de Apple".

## *Respuesta de la Comunidad de Gnome*

Respondiendo a algunas de estas críticas, el diseñador William Jon McCann de GNOME dijo en una entrevista que "la gente no está inventando y [GNOME] de hecho puede no ser lo que quiere", indicando que "hay muchos productos diferentes afuera que pueden cubrir mejor su manera de trabajar". Sin embargo, les recordó que "éste no es la primera vez que nosotros hemos encontrado tales reacciones", agregando que "muchos de la misma gente que ahora está afirmando que GNOME 2 era una gran cosa, eran algunos de los opositores más vocales de las cosas que hicimos en GNOME 2". También comentó que una "retroalimentación es ciertamente válida y vamos a utilizar eso para tomar decisiones informadas en el ciclo de GNOME 3", haciendo incapié en que GNOME 3 todavía está temprano en el desarrollo y que tomó "ocho, nueve años terminar GNOME2 y nosotros hemos tenido como cuatro meses de GNOME 3".

## *Consecuencias*

Como resultado de que GNOME 2 ya no está siendo mantenido, fue creado el proyecto de ambiente de escritorio MATE como un `fork` del GNOME 2.9 MATE se propone mantener el código base de GNOME 2 y la suite de aplicaciones, manteniéndolos hasta actualizados y también ofreciendo la experiencia tradicional del GNOME 2.

"Mint Gnome Shell Extensions" (MGSE) (Las Extensiones Shell de Gnome de Mint) fueron creadas por los desarrolladores de Linux Mint para llevar la experiencia de usuario del GNOME 2 al GNOME 3. En enero de 2012 los desarrolladores de MGSE anunciaron el Shell Cinamon que bifurcaron del GNOME Shell. Fue pensado para mantener la tecnología subyacente del GNOME Shell, incluyendo Mutter y GTK+3, mientras que proporciona una más tradicional interfaz de usuario tipo GNOME 2.

## *Novedades de Gnome 3.8*

Las novedades representativas de lo que es la quinta versión estable de gnome 3 situándonos en la versión 3.8, referente al enfoque de éste trabajo, prometen ofrecer al usuario una mejor experiencia de manejo en cuanto usabilidad y confort.

### *Lanzar aplicaciones*

GNOME 3.8 introduce una nueva vista de lanzamiento de aplicaciones. La pestaña 'Frecuentes' incluye las aplicaciones más usadas, lo que significa que no tendrá que gastar tiempo en buscar las cosas que más usa. La pestaña 'Todas' muestra todas sus aplicaciones y también incluye carpetas de aplicaciones, que contienen varios grupos de aplicaciones. Esto hace que sea más sencillo examinar sus aplicaciones.

### *Buscar*

La búsqueda desde la Vista de actividades se ha rediseñado con una nueva vista de resultados de búsqueda, así como con una nueva configuración de búsqueda. Juntas, estas mejoras permiten que cualquier aplicación muestre resultados de búsqueda, haciendo que la búsqueda desde la Vista de actividades sea una manera más potente de acceder al contenido proporcionado por las aplicaciones. La nueva configuración de la búsqueda proporciona control sobre qué aplicaciones mostrarán resultados de búsqueda, así como su orden en la lista de resultados.

### *Privacidad y compartición*

También incluye una amplia configuración nueva de privacidad y compartición. Esto le permite controlar quién tiene acceso al contenido de su equipo, cuánta información personal se muestra en la pantalla y qué características de rastreo de su actividad deben estar activadas.

### *Relojes*

La última versión de GNOME incluye una nueva aplicación del núcleo, llamada Relojes. En 3.6 se publicó una primera versión de esta utilidad y ha madurado junto al resto de aplicaciones pertenecientes al conjunto de aplicaciones de GNOME.

Incluye varias características útiles, incluyendo relojes para diferentes partes del mundo, alarmas, un cronógrafo y un temporizador.

### *Renderizado de animaciones mejorado*

Incluye un avance tecnológico significativo en la forma en que se representan los gráficos animados. Al mejorar la coordinación entre los componentes responsables de mostrar gráficos animados, la eficiencia es mucho mayor y el rendimiento se ha mejorado. El resultado de este trabajo son transiciones visuales y cambios del tamaño de las ventanas más suaves y robustas. También es más suave la reproducción de vídeo bajo algunas condiciones.

### *Modo clásico*

El modo clásico es una característica para aquellas personas que prefieren una experiencia del escritorio más tradicional. Construido por completo sobre tecnologías de GNOME 3, añade varias características como un menú de aplicaciones, un menú de lugares y un intercambiador de ventanas en la parte inferior de la pantalla. Cada una de estas características se pueden usar de manera individual o en combinación con otras extensiones de GNOME.

### *Métodos de entrada*

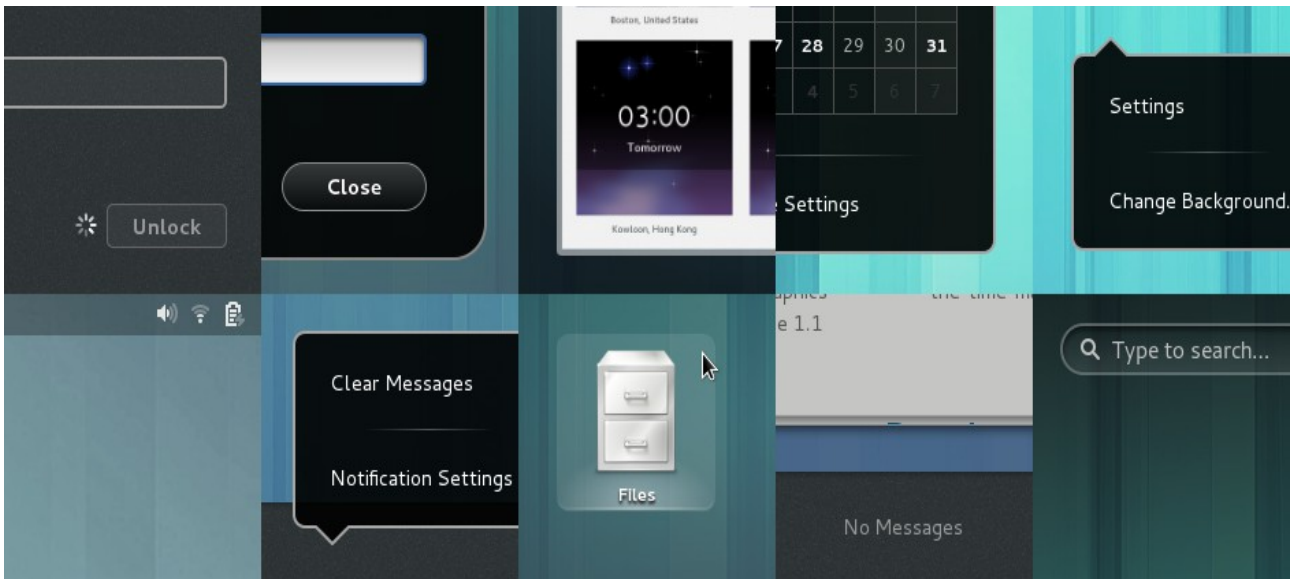
Los métodos de entrada integrados se introdujeron por primera vez en la versión anterior, en GNOME 3.6. Se ha trabajado mucho sobre ellos, añadiendo características nuevas y corrigiendo errores. Entre los cambios, se incluye un nuevo selector en pantalla de los métodos de entrada, ventanas emergentes con caracteres candidatos, nueva configuración de Región e idioma y la inclusión de todos los motores de métodos de entrada en el menú de métodos de entrada.

### *Detalles*

GNOME 3.8 incluye una gran cantidad de correcciones de errores y de pequeñas mejoras. Se han tenido en cuenta muchos detalles para ofrecer una experiencia más pulida, incluyendo nuevas transiciones animadas, mejoras visuales y correcciones en



la usabilidad. Muchas de estas mejoras se han hecho como parte de la iniciativa Cada detalle importa, que ha corregido cerca de 60 errores durante el ciclo de desarrollo de la versión 3.8.



## Instalar Gnome3

Si bien podemos optar por una instalación base de alguna distribución que lo lleve como entorno de escritorio predeterminado, nos enfocaremos en una actualización sencilla enfocándonos en una de las distribuciones más populares como lo es Fedora en su versión 18.

Podremos obtener nuestro gnome3 en su más reciente versión (3.8) con este simple comando:

```
sudo yum groupinstall "GNOME Desktop Environment"
```

## Configurar y mejorar la apariencia de Gnome3

### 1) Algunas "dependencias"

Necesitaremos instalar algunas dependencias para hacer que las extensiones de Gnome Shell funcionen bien:

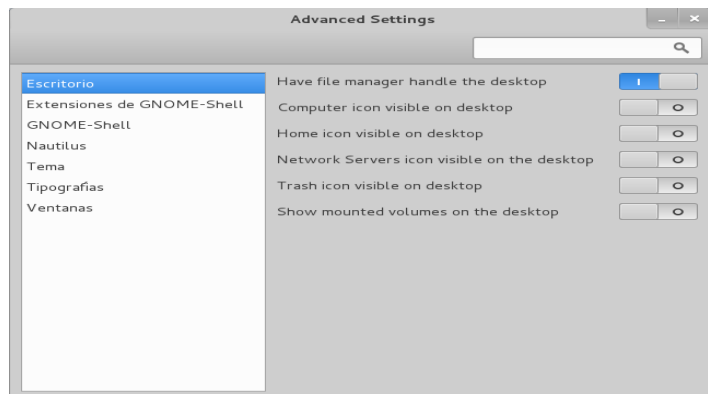
```
sudo yum -y install gnome-shell-extension-common
```

## 2) Instalar la gnome-tweak-tool

La herramienta por excelencia para modificar/gestionar Gnome Shell, en Fedora se hace con:

```
sudo yum -y install gnome-tweak-tool
```

Con esta herramienta puedes hacer muchas cosas: elegir qué botones de ventana tener, Activar/Desactivar extensiones, instalar temas y apariencias, modificar el comportamiento del escritorio bajo ciertas circunstancias y demás.



## 3) Activar Click secundario en el escritorio e íconos

Si te gustaría tener disponible la función de click secundario en tu escritorio y también poder tener íconos, en **Gnome-Tweak-Tool** nos iríamos al apartado de **Escritorio** y marcamos la opción de **"Have File Manager to Handle the Desktop"** Eso nos permitirá tener click secundario y si tenemos archivos guardados en nuestro escritorio estos se mostrarán ahí. En ese mismo apartado podemos configurar otras opciones de íconos especiales si así lo deseamos también.

## 4) Extensiones útiles en Gnome-Shell

En <http://extensions.gnome.org/> podremos encontrar muchas extensiones que harán de la experiencia Gnome algo mucho mas placentero. Un listado de las mas recomendadas y útiles:

- Remove Accessibility
- Alternative Status Menu
- User Themes
- Advanced Settings in User Menu
- Places Status Indicator
- Removable Drive Menu
- Trash

- Force Quit
- Bluetooth Icon Remover (Si no tienes bluetooth)
- Show Desktop Button
- Multiple Monitor Panels (Si usas varios monitores)
- Web Application Menu
- System-Monitor

## 5) El tema GTK y de íconos

El tema GTK de Gnome Shell puede cambiarse facilmente. Por ejemplo si se desea instalar el tema **GreyBird** solo basta con ejecutar el comando correspondiente:

```
sudo yum -y install greybird-*
```

Y luego en el apartado de **Tema** de la **Gnome-Tweak-Tool** podremos seleccionar como tema GTK a **Greybird**.

En cuanto a los íconos se recomienda usar el pack de íconos **Elementary**. (muy popular) Para usarlo, lo descargamos, lo extraemos y copiamos la carpeta "elementary" (que estará dentro de la carpeta *icons* que aparecerá al extraer el comprimido descargado) a **/usr/share/icons**, esto se puede hacer con el comando:

```
sudo cp -R ruta/a/elementary /usr/share/icons
```

## 6) Tema del Shell

Si no te gusta el tema que viene por defecto para Gnome-Shell, siempre puedes conseguir más, En Fedora basta con buscar **gnome-shell-theme** en tu gestor de paquetes para obtener una lista de varios temas disponibles desde los repositorios, luego podrás elegir tu preferido con la **Gnome-tweak-tool** en el apartado de **Tema**.

## 7) Hacer más agradable la terminal

Cuando abres tu terminal, si te vas al menú **Editar>Preferencias del Perfil>Colores**, podrás modificar la coloración de la misma y de hecho ahí mismo en las preferencias

del perfil hay mucho que puedes cambiar...

## 8) Aplicaciones Predeterminadas

Puedes cambiar tus aplicaciones predeterminadas en Gnome Shell desde el Menú de usuario en el apartado de "Configuración del sistema>Información del Sistema" Esto es útil por ejemplo si quieres establecer un Navegador Web predeterminado para las búsquedas, entre otras cosas.

## 9) Forzar el Modo "Fallback"

Si no te acostumbras al Shell siempre puedes forzar al escritorio a mostrarse en modo *fallback*, que es el modo optimizado para computadoras sin aceleración gráfica. Éste modo de visualización para Gnome 3 se parece mucho al "Gnome Classic" al que muchos usuarios están acostumbrados. Para forzar el modo "Fallback" nos vamos a "Configuración del Sistema>Información del sistema>Gráficos" Activamos dicha opción y reiniciamos nuestra sesión. Cabe destacar que a partir de F17, fedora nos ofrece como opción de fallback también un Gnome Shell 2D que es prácticamente idéntico al original pero que no requiere de aceleración gráfica para funcionar.

## Conclusión

La conclusión final, luego de probar susodicho entorno, es que tiene mucho potencial para superar todas las críticas actuales, y con el tiempo, volver a ser uno de los mas usados.

Se buscó crear un entorno libre de distracciones que enfoque al usuario en lo importante. Pero cada usuario es diferente, y lo que es importante para uno no lo es para otros.

Teniendo en cuenta el uso de equipos cada vez mas potentes, pienso que fue una apuesta acertada en evolucionar el entorno y dar un salto de paradigma prematuro. Segun la comunidad no siempre funciona bien y aun quedan muchos bug por mejorar y optimizar pero evoluciona de una forma muy acelerada comprandolo con su predecesor.

En una simple opinion los desarrolladores pensaron en un usuario futuro y enfocaron

el estilo y la forma de trabajo en equipos modernos ... tal vez táctiles. Y creo que fue algo bueno y los que alguna vez lo criticaron se retractarán en algún momento.

Y para los que les gusta Gnome2 tendrán que optar por algún fork que mantenga esa perspectiva clásica.

Como siempre cada usuario es libre de elegir, por mi parte deje de lado KDE y opté por Gnome.

## Bibliografía

- [http://es.wikipedia.org/wiki/Anexo:Controversia\\_sobre\\_GNOME\\_3](http://es.wikipedia.org/wiki/Anexo:Controversia_sobre_GNOME_3)
- [http://es.wikipedia.org/wiki/GNOME\\_Shell](http://es.wikipedia.org/wiki/GNOME_Shell)
- <http://www.muylinux.com/2013/03/04/un-poco-de-las-novedades-de-gnome-3-8/>
- <http://es.wikipedia.org/wiki/GNOME>
- <https://help.gnome.org/misc/release-notes/3.4/index.html.es>

## GNU Free Documentation License Version 1.3, 3 November 2008

Copyright (C) 2000, 2001, 2002, 2007, 2008 Free Software Foundation, Inc.  
<<http://fsf.org/>>

Everyone is permitted to copy and distribute verbatim copies of this license document, but changing it is not allowed.

### 0. PREAMBLE

The purpose of this License is to make a manual, textbook, or other functional and useful document "free" in the sense of freedom: to assure everyone the effective freedom to copy and redistribute it, with or without modifying it, either commercially or noncommercially. Secondly, this License preserves for the author and publisher a way to get credit for their work, while not being considered responsible for modifications made by others.

This License is a kind of "copyleft", which means that derivative works of the document must themselves be free in the same sense. It complements the GNU General Public License, which is a copyleft license designed for free software.

We have designed this License in order to use it for manuals for free software, because free software needs free documentation: a free program should come with manuals providing the same freedoms that the software does. But this License is not limited to software manuals; it can be used for any textual work, regardless of subject matter or whether it is published as a printed book. We recommend this License

principally for works whose purpose is instruction or reference.

## 1. APPLICABILITY AND DEFINITIONS

This License applies to any manual or other work, in any medium, that contains a notice placed by the copyright holder saying it can be distributed under the terms of this License. Such a notice grants a world-wide, royalty-free license, unlimited in duration, to use that work under the conditions stated herein. The "Document", below, refers to any such manual or work. Any member of the public is a licensee, and is addressed as "you". You accept the license if you copy, modify or distribute the work in a way requiring permission under copyright law.

A "Modified Version" of the Document means any work containing the Document or a portion of it, either copied verbatim, or with modifications and/or translated into another language.

A "Secondary Section" is a named appendix or a front-matter section of the Document that deals exclusively with the relationship of the publishers or authors of the Document to the Document's overall subject (or to related matters) and contains nothing that could fall directly within that overall subject. (Thus, if the Document is in part a textbook of mathematics, a Secondary Section may not explain any mathematics.) The relationship could be a matter of historical connection with the subject or with related matters, or of legal, commercial, philosophical, ethical or political position regarding them.



The "Invariant Sections" are certain Secondary Sections whose titles are designated, as being those of Invariant Sections, in the notice that says that the Document is released under this License. If a section does not fit the above definition of Secondary then it is not allowed to be designated as Invariant. The Document may contain zero Invariant Sections. If the Document does not identify any Invariant Sections then there are none.

The "Cover Texts" are certain short passages of text that are listed, as Front-Cover Texts or Back-Cover Texts, in the notice that says that the Document is released under this License. A Front-Cover Text may be at most 5 words, and a Back-Cover Text may be at most 25 words.

A "Transparent" copy of the Document means a machine-readable copy, represented in a format whose specification is available to the general public, that is suitable for revising the document straightforwardly with generic text editors or (for images composed of pixels) generic paint programs or (for drawings) some widely available drawing editor, and that is suitable for input to text formatters or for automatic translation to a variety of formats suitable for input to text formatters. A copy made in an otherwise Transparent file format whose markup, or absence of markup, has been arranged to thwart or discourage subsequent modification by readers is not Transparent. An image format is not Transparent if used for any substantial amount of text. A copy that is not "Transparent" is called "Opaque".

Examples of suitable formats for Transparent copies include plain ASCII without markup, Texinfo input format, LaTeX input format, SGML or XML using a publicly available DTD, and standard-conforming simple HTML, PostScript or PDF designed for human modification. Examples of

transparent image formats include PNG, XCF and JPG. Opaque formats include proprietary formats that can be read and edited only by proprietary word processors, SGML or XML for which the DTD and/or processing tools are not generally available, and the machine-generated HTML, PostScript or PDF produced by some word processors for output purposes only.

The "Title Page" means, for a printed book, the title page itself, plus such following pages as are needed to hold, legibly, the material this License requires to appear in the title page. For works in formats which do not have any title page as such, "Title Page" means the text near the most prominent appearance of the work's title, preceding the beginning of the body of the text.

The "publisher" means any person or entity that distributes copies of the Document to the public.

A section "Entitled XYZ" means a named subunit of the Document whose title either is precisely XYZ or contains XYZ in parentheses following text that translates XYZ in another language. (Here XYZ stands for a specific section name mentioned below, such as "Acknowledgements", "Dedications", "Endorsements", or "History".) To "Preserve the Title" of such a section when you modify the Document means that it remains a section "Entitled XYZ" according to this definition.

The Document may include Warranty Disclaimers next to the notice which states that this License applies to the Document. These Warranty Disclaimers are considered to be included by reference in this License, but only as regards disclaiming warranties: any other implication that these Warranty Disclaimers may have is void and has

no effect on the meaning of this License.

## 2. VERBATIM COPYING

You may copy and distribute the Document in any medium, either commercially or noncommercially, provided that this License, the copyright notices, and the license notice saying this License applies to the Document are reproduced in all copies, and that you add no other conditions whatsoever to those of this License. You may not use technical measures to obstruct or control the reading or further copying of the copies you make or distribute. However, you may accept compensation in exchange for copies. If you distribute a large enough number of copies you must also follow the conditions in section 3.

You may also lend copies, under the same conditions stated above, and you may publicly display copies.

## 3. COPYING IN QUANTITY

If you publish printed copies (or copies in media that commonly have printed covers) of the Document, numbering more than 100, and the Document's license notice requires Cover Texts, you must enclose the copies in covers that carry, clearly and legibly, all these Cover Texts: Front-Cover Texts on the front cover, and Back-Cover Texts on the back cover. Both covers must also clearly and legibly identify you as the publisher of these copies. The front cover must present the full title with all words of the title equally prominent and visible. You may add other material on the covers in addition. Copying with changes limited to the covers, as long as they preserve

the title of the Document and satisfy these conditions, can be treated as verbatim copying in other respects.

If the required texts for either cover are too voluminous to fit legibly, you should put the first ones listed (as many as fit reasonably) on the actual cover, and continue the rest onto adjacent pages.

If you publish or distribute Opaque copies of the Document numbering more than 100, you must either include a machine-readable Transparent copy along with each Opaque copy, or state in or with each Opaque copy a computer-network location from which the general network-using public has access to download using public-standard network protocols a complete Transparent copy of the Document, free of added material. If you use the latter option, you must take reasonably prudent steps, when you begin distribution of Opaque copies in quantity, to ensure that this Transparent copy will remain thus accessible at the stated location until at least one year after the last time you distribute an Opaque copy (directly or through your agents or retailers) of that edition to the public.

It is requested, but not required, that you contact the authors of the Document well before redistributing any large number of copies, to give them a chance to provide you with an updated version of the Document.

#### 4. MODIFICATIONS

You may copy and distribute a Modified Version of the Document under

the conditions of sections 2 and 3 above, provided that you release the Modified Version under precisely this License, with the Modified Version filling the role of the Document, thus licensing distribution and modification of the Modified Version to whoever possesses a copy of it. In addition, you must do these things in the Modified Version:

- A. Use in the Title Page (and on the covers, if any) a title distinct from that of the Document, and from those of previous versions (which should, if there were any, be listed in the History section of the Document). You may use the same title as a previous version if the original publisher of that version gives permission.
- B. List on the Title Page, as authors, one or more persons or entities responsible for authorship of the modifications in the Modified Version, together with at least five of the principal authors of the Document (all of its principal authors, if it has fewer than five), unless they release you from this requirement.
- C. State on the Title page the name of the publisher of the Modified Version, as the publisher.
- D. Preserve all the copyright notices of the Document.
- E. Add an appropriate copyright notice for your modifications adjacent to the other copyright notices.
- F. Include, immediately after the copyright notices, a license notice giving the public permission to use the Modified Version under the terms of this License, in the form shown in the Addendum below.
- G. Preserve in that license notice the full lists of Invariant Sections and required Cover Texts given in the Document's license notice.
- H. Include an unaltered copy of this License.
- I. Preserve the section Entitled "History", Preserve its Title, and add to it an item stating at least the title, year, new authors, and publisher of the Modified Version as given on the Title Page. If

there is no section Entitled "History" in the Document, create one stating the title, year, authors, and publisher of the Document as given on its Title Page, then add an item describing the Modified Version as stated in the previous sentence.

- J. Preserve the network location, if any, given in the Document for public access to a Transparent copy of the Document, and likewise the network locations given in the Document for previous versions it was based on. These may be placed in the "History" section. You may omit a network location for a work that was published at least four years before the Document itself, or if the original publisher of the version it refers to gives permission.
- K. For any section Entitled "Acknowledgements" or "Dedications", Preserve the Title of the section, and preserve in the section all the substance and tone of each of the contributor acknowledgements and/or dedications given therein.
- L. Preserve all the Invariant Sections of the Document, unaltered in their text and in their titles. Section numbers or the equivalent are not considered part of the section titles.
- M. Delete any section Entitled "Endorsements". Such a section may not be included in the Modified Version.
- N. Do not retitle any existing section to be Entitled "Endorsements" or to conflict in title with any Invariant Section.
- O. Preserve any Warranty Disclaimers.

If the Modified Version includes new front-matter sections or appendices that qualify as Secondary Sections and contain no material copied from the Document, you may at your option designate some or all of these sections as invariant. To do this, add their titles to the list of Invariant Sections in the Modified Version's license notice. These titles must be distinct from any other section titles.

You may add a section Entitled "Endorsements", provided it contains nothing but endorsements of your Modified Version by various parties--for example, statements of peer review or that the text has been approved by an organization as the authoritative definition of a standard.

You may add a passage of up to five words as a Front-Cover Text, and a passage of up to 25 words as a Back-Cover Text, to the end of the list of Cover Texts in the Modified Version. Only one passage of Front-Cover Text and one of Back-Cover Text may be added by (or through arrangements made by) any one entity. If the Document already includes a cover text for the same cover, previously added by you or by arrangement made by the same entity you are acting on behalf of, you may not add another; but you may replace the old one, on explicit permission from the previous publisher that added the old one.

The author(s) and publisher(s) of the Document do not by this License give permission to use their names for publicity for or to assert or imply endorsement of any Modified Version.

## 5. COMBINING DOCUMENTS

You may combine the Document with other documents released under this License, under the terms defined in section 4 above for modified versions, provided that you include in the combination all of the Invariant Sections of all of the original documents, unmodified, and list them all as Invariant Sections of your combined work in its license notice, and that you preserve all their Warranty Disclaimers.

The combined work need only contain one copy of this License, and multiple identical Invariant Sections may be replaced with a single copy. If there are multiple Invariant Sections with the same name but different contents, make the title of each such section unique by adding at the end of it, in parentheses, the name of the original author or publisher of that section if known, or else a unique number. Make the same adjustment to the section titles in the list of Invariant Sections in the license notice of the combined work.

In the combination, you must combine any sections Entitled "History" in the various original documents, forming one section Entitled "History"; likewise combine any sections Entitled "Acknowledgements", and any sections Entitled "Dedications". You must delete all sections Entitled "Endorsements".

## 6. COLLECTIONS OF DOCUMENTS

You may make a collection consisting of the Document and other documents released under this License, and replace the individual copies of this License in the various documents with a single copy that is included in the collection, provided that you follow the rules of this License for verbatim copying of each of the documents in all other respects.

You may extract a single document from such a collection, and distribute it individually under this License, provided you insert a copy of this License into the extracted document, and follow this License in all other respects regarding verbatim copying of that



document.

## 7. AGGREGATION WITH INDEPENDENT WORKS

A compilation of the Document or its derivatives with other separate and independent documents or works, in or on a volume of a storage or distribution medium, is called an "aggregate" if the copyright resulting from the compilation is not used to limit the legal rights of the compilation's users beyond what the individual works permit. When the Document is included in an aggregate, this License does not apply to the other works in the aggregate which are not themselves derivative works of the Document.

If the Cover Text requirement of section 3 is applicable to these copies of the Document, then if the Document is less than one half of the entire aggregate, the Document's Cover Texts may be placed on covers that bracket the Document within the aggregate, or the electronic equivalent of covers if the Document is in electronic form. Otherwise they must appear on printed covers that bracket the whole aggregate.

## 8. TRANSLATION

Translation is considered a kind of modification, so you may distribute translations of the Document under the terms of section 4. Replacing Invariant Sections with translations requires special permission from their copyright holders, but you may include translations of some or all Invariant Sections in addition to the

original versions of these Invariant Sections. You may include a translation of this License, and all the license notices in the Document, and any Warranty Disclaimers, provided that you also include the original English version of this License and the original versions of those notices and disclaimers. In case of a disagreement between the translation and the original version of this License or a notice or disclaimer, the original version will prevail.

If a section in the Document is Entitled "Acknowledgements", "Dedications", or "History", the requirement (section 4) to Preserve its Title (section 1) will typically require changing the actual title.

## 9. TERMINATION

You may not copy, modify, sublicense, or distribute the Document except as expressly provided under this License. Any attempt otherwise to copy, modify, sublicense, or distribute it is void, and will automatically terminate your rights under this License.

However, if you cease all violation of this License, then your license from a particular copyright holder is reinstated (a) provisionally, unless and until the copyright holder explicitly and finally terminates your license, and (b) permanently, if the copyright holder fails to notify you of the violation by some reasonable means prior to 60 days after the cessation.

Moreover, your license from a particular copyright holder is reinstated permanently if the copyright holder notifies you of the

violation by some reasonable means, this is the first time you have received notice of violation of this License (for any work) from that copyright holder, and you cure the violation prior to 30 days after your receipt of the notice.

Termination of your rights under this section does not terminate the licenses of parties who have received copies or rights from you under this License. If your rights have been terminated and not permanently reinstated, receipt of a copy of some or all of the same material does not give you any rights to use it.

## 10. FUTURE REVISIONS OF THIS LICENSE

The Free Software Foundation may publish new, revised versions of the GNU Free Documentation License from time to time. Such new versions will be similar in spirit to the present version, but may differ in detail to address new problems or concerns. See <http://www.gnu.org/copyleft/>.

Each version of the License is given a distinguishing version number. If the Document specifies that a particular numbered version of this License "or any later version" applies to it, you have the option of following the terms and conditions either of that specified version or of any later version that has been published (not as a draft) by the Free Software Foundation. If the Document does not specify a version number of this License, you may choose any version ever published (not as a draft) by the Free Software Foundation. If the Document specifies that a proxy can decide which future versions of this License can be used, that proxy's public statement of acceptance of a

version permanently authorizes you to choose that version for the Document.

## 11. RELICENSING

"Massive Multiauthor Collaboration Site" (or "MMC Site") means any World Wide Web server that publishes copyrightable works and also provides prominent facilities for anybody to edit those works. A public wiki that anybody can edit is an example of such a server. A "Massive Multiauthor Collaboration" (or "MMC") contained in the site means any set of copyrightable works thus published on the MMC site.

"CC-BY-SA" means the Creative Commons Attribution-Share Alike 3.0 license published by Creative Commons Corporation, a not-for-profit corporation with a principal place of business in San Francisco, California, as well as future copyleft versions of that license published by that same organization.

"Incorporate" means to publish or republish a Document, in whole or in part, as part of another Document.

An MMC is "eligible for relicensing" if it is licensed under this License, and if all works that were first published under this License somewhere other than this MMC, and subsequently incorporated in whole or in part into the MMC, (1) had no cover texts or invariant sections, and (2) were thus incorporated prior to November 1, 2008.

The operator of an MMC Site may republish an MMC contained in the site under CC-BY-SA on the same site at any time before August 1, 2009, provided the MMC is eligible for relicensing.

## ADDENDUM: How to use this License for your documents

To use this License in a document you have written, include a copy of the License in the document and put the following copyright and license notices just after the title page:

Copyright (c) YEAR YOUR NAME.

Permission is granted to copy, distribute and/or modify this document under the terms of the GNU Free Documentation License, Version 1.3 or any later version published by the Free Software Foundation; with no Invariant Sections, no Front-Cover Texts, and no Back-Cover Texts. A copy of the license is included in the section entitled "GNU Free Documentation License".

If you have Invariant Sections, Front-Cover Texts and Back-Cover Texts, replace the "with...Texts." line with this:

with the Invariant Sections being LIST THEIR TITLES, with the Front-Cover Texts being LIST, and with the Back-Cover Texts being LIST.

If you have Invariant Sections without Cover Texts, or some other combination of the three, merge those two alternatives to suit the situation.

If your document contains nontrivial examples of program code, we recommend releasing these examples in parallel under your choice of free software license, such as the GNU General Public License, to permit their use in free software.