

GNU/Linux, software libre para la comunidad universitaria

Recursos de programación en GNU/Linux

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Capítulo 1

Recursos de Programación en GNU/Linux

1.1. Licencias

- Copyleft: GPL
 - Origen del Proyecto GNU.
 - Concepto de "trabajo derivado".
 - Licencia dual.
 - Forma de financiación.
- no-Copyleft: BSD modificada, MIT X11
 - evitar las incompatibilidades
- otras licencias
 - LGPL
 - MPL

1.2. Dónde buscar programas

- [Freshmeat](#)
- [Sourceforge](#)
- [Proyecto GNU](#)
- [Savannah](#)
- [Proyecto Debian](#)
- [GNOME](#)
- [KDE](#)

1.3. Consejos

- No reinventar la rueda.
 - Colaborar.
 - Humildad y no desanimarse.
-

1.4. Sourceforge

- ¿Qué ofrece?
 - Web con PHP
 - Base de datos.
 - Listas de correo
 - FTP
 - SSH
 - Máquinas donde compilar.
 - CVS
 - Bugzilla.
- ¿Quién lo ofrece?
 - Savannah
 - Sourceforge
 - En consideración, Hispalinux
 - Sourceforge, en senda propietaria.
- Sourceforge en cifras. (Abril - 2002)
 - Más de 38.000 proyectos alojados.
 - Más de 400.000 usuarios registrados.
 - Los servidores soportan 12 millones de visitas diarias de páginas PHP.
 - 1,3 Terabytes de capacidad
 - 47 GiB de RAM
 - 56 GHz procesadores
 - Todos los discos tienen RAID para proteger los datos.

1.5. Lenguajes de programación

- C/C++: gcc
- Interpretados: Perl, Python
- Empotrables Scheme
- Java, C#

1.6. Programación Web

- Apache: FastCGI, módulos
 - PHP
 - Perl
 - Tomcat
-

1.7. Bases de Datos

- [MySQL](#)
- [PostgreSQL](#)
- InterBase
 - [Firebird](#)
- [SapDB](#)

1.8. Programación de empresa

- J2EE
 - [JBoss](#)
- [GNUe](#)
- [OSDL](#)
- En progreso:
 - MONO::
 - dotGNU

1.9. Programación multiplataforma

- Linux/Unix es multiplataforma:
 - ejecutables transportables i386 ELF
 - automake, configure
 - ojo con los warnings
 - X-Window: Motif, GTK+, QT
- Compatibilidad hacia MS Windows
 - [Cygwin](#)
 - [X-Window](#)
- Migrar desde MS Windows
 - [Wine/Winelib](#)
- Librerías multiplataforma
 - Hilos, red, E/S:
 - [ACE](#)
 - [NSPR](#)
 - Gráficos y más cosas, C++: [wxWindows](#)
 - Gráfico, C++: [Fox Toolkit](#), [FLTK](#)
 - Multimedia: [SDL](#)
 - Más librerías multiplataforma
 - SSL

- ◊ [OpenSSL](#)
- ◊ [GnuTLS](#)
- XML: [libxml2](#)
- [OpenH323](#)

■ Java

- Java NO es libre
- [gcj](#)
- [Eclipse](#)
- SWT: forma parte de Eclipse
- [jikes](#)
- [XWT](#): requiere applets o activex

■ .NET

- [Dot GNU](#)
 - Portable.Net
- [MONO::](#)

■ Pascal

- Kylix: propietario
- [Lazarus](#)

■ [Sash](#): basado en Mozilla. Versión para Windows propietaria.

1.10. Herramientas

■ Entornos de desarrollo

- KDE: [Kdevelop](#)
- GNOME: [Anjuta](#) + [Glade](#) (enlace de recursos en la web de Anjuta)
- [VDK Builder](#)
- Java: Eclipse
- wxWindow: [wxGlade](#)

■ Depuradores de memoria C/C++

- [mpatrol](#)
- [dmalloc](#)
- ElectricFence

■ Gestión de proyectos: [Mr Project](#)

■ Ingeniería del software

- [argouml](#)
 - derivado propietario: [Poseidon](#)

■ [Umbrello UML Modeler](#)

- **DIA**
 - [AutoDIA](#)
 - [dia2code](#)
- Otros: (buscar UML en [Freshmeat](#))
 - <http://gaphor.sourceforge.net/>
 - <http://javare.sourceforge.net>
 - <http://freshmeat.net/redir/klassmodeler/>
- Proyecto gestión libre: en <http://www.hispalinux.es>

1.11. Documentación

- Páginas info (info libc)
- man, secciones 2 y 3
- [Advanced Linux programming](#)
- [OpenBooks](#) (KDE, Gnome...)
- [Programación segura](#)
- [DevHelp](#)
- <http://libros.es.gnome.org/>
- <http://es.gnome.org>

1.12. Generar documentación

- [DocBook](#)
- [doxygen](#) (tipo javadoc)

1.13. Otros sitios interesantes

- <http://www-124.ibm.com/developerworks/oss/>
- <http://www.programacion.net>
- <http://www.apache.org> XML, Jakarta
- <http://www.linuxbase.org> (estándares)
- <http://www.freedesktop.org> (estándares)
- <http://www.salix.org/>
- <http://www.javahispano.org>
- http://rpmfind.net/linux/RPM/Development_Tools.html
- <http://www.hispalinux.net>: casos de éxito, empresas españolas de software libre.

1.14. Algunos detalles en las prácticas

- getopt
- setlocale
- seteuid
- aprender: ltrace

1.15. El lado oscuro

- Instaladores
 - Inno Setup
 - NSIS
- Entornos, compiladores
- Cross compiling: <http://www.fox-toolkit.org/faq.html#CROSSCOMPILING>

1.16. Curiosos

- <http://www.ignavus.net/software.html>
 - Tarjetas inteligentes
 - Sistemas empotrados
 - Turbo Vision (consola)
-

Apéndice A

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