

# Debian Packaging

*La potencia sin control no sirve de nada*



•Javier Carranza

- [javier.carranza@interactors.coop](mailto:javier.carranza@interactors.coop)
- <http://www.interactors.coop>



**interactors**

activando redes

•Proyecto Debian

- <http://www.debian.org>

•Ubuntu

- <http://www.ubuntulinux.org>

# Herramientas Debian

---

- Utilidades para la generación de paquetes:
    - **debhelper** /\* scripts debian/rules \*/
    - **dpkg-dev** /\* dpkg-buildpackage, dpkg-scanpackages, ... \*/
    - **dh-make** /\* dh\_make \*/
    - **lintian**
    - **linda**
    - **fakeroot**
-

# Generación de un paquete Debian

---

```
trunks@Orthanc:~/desarrollo (2 Kb) $ mkdir xapi-1.6
trunks@Orthanc:~/desarrollo (2 Kb) $ cd xapi-1.6/
trunks@Orthanc:~/desarrollo/xapi-1.6 (0 bytes) $ dh_make -e
packmaster@guadalinex.org --copyright gpl -f ../../xapi-1.6.tar.gz
```

*Type of package: single binary, multiple binary, library, or kernel module?*  
*[s/m/l/k] s*

*Maintainer name : Javier Carranza*  
*Email-Address : packmaster@guadalinex.org*  
*Date : Wed, 22 Jun 2005 09:54:26 +0200*  
*Package Name : xapi*  
*Version : 1.6*  
*License : gpl*  
*Type of Package : Single*  
*Hit <enter> to confirm:*

*Currently there is no top level Makefile. This may require additional tuning.*  
*Done. Please edit the files in the debian/ subdirectory now. You should also*  
*check that the xapi Makefiles install into \$DESTDIR and not in / .*

# Generación de un paquete Debian (II)

```
trunks@Orthanc:~/desarrollo/xapi-1.6 (0 bytes) $ ls
debian/
trunks@Orthanc:~/desarrollo/xapi-1.6 (0 bytes) $ cd debian/
trunks@Orthanc:~/desarrollo/xapi-1.6/debian (23 Kb) $ ls
changelog      copyright      emacs-en-install.ex  manpage.1.ex      postinst.ex
README.Debian  xapi.doc-base.EX
compat         cron.d.ex      emacs-en-remove.ex   manpage.sgml.ex    postrm.ex         rules*
conffiles.ex   dirs           emacs-en-startup.ex  manpage.xml.ex     preinst.ex
watch.ex
control        docs           init.d.ex            menu.ex             prerm.ex          xapi-
default.ex
trunks@Orthanc:~/desarrollo/xapi-1.6/debian (23 Kb) $ rm conffiles.ex cron.d.ex
emacs-en-* init.d.ex manpage.* preinst.ex prerm.ex watch.ex xapi-default.ex
xapi.doc-base.EX README.Debian
trunks@Orthanc:~/desarrollo/xapi-1.6/debian (5 Kb) $ mv menu.ex menu; mv
postinst.ex postinst; mv postrm.ex postrm
trunks@Orthanc:~/desarrollo/xapi-1.6/debian (5 Kb) $ ls
changelog compat control copyright dirs docs menu postinst postrm rules*
```

# debian/control

---

```
Source: xapi
Section: unknown /* guadalinux */
Priority: optional
Maintainer: Javier Carranza <packmaster@guadalinux.org>
Build-Depends: debhelper (>= 4.0.0)
Standards-Version: 3.6.1

Package: xapi
Architecture: any
Depends: ${shlibs:Depends}, ${misc:Depends}
Description: <insert up to 60 chars description>
/* Manjeador de paquetes deb para instalacion desde navegador */
<insert long description, indented with spaces>
/* xapi facilita la instalacion de paquetes .deb desde el navegador
   tras ser descargados desde la web */
```

# debian/changelog

---

*xapi (1.6-1) unstable; urgency=low*

*\* Initial release Closes: #nnnn (nnnn is the bug number of your ITP)*

*-- Javier Carranza <packmaster@guadalinex.org> Wed, 22 Jun 2005 09:54:26 +0200*

## debian/menu

---

```
?package(xapi):needs="X11|text|vc|wm" section="Apps/see-menu-manual"\  
  title="xapi" command="/usr/bin/xapi"
```

# debian/copyright

---

This package was debianized by Javier Carranza <packmaster@guadalinux.org> on  
Wed, 22 Jun 2005 09:54:26 +0200.

It was downloaded from <fill in ftp site>

Copyright Holder: <put author(s) name and email here>

License:

This package is free software; you can redistribute it and/or modify  
it under the terms of the GNU General Public License as published by  
the Free Software Foundation; either version 2 of the License, or  
(at your option) any later version.

This package is distributed in the hope that it will be useful,  
but WITHOUT ANY WARRANTY; without even the implied warranty of  
MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the  
GNU General Public License for more details.

You should have received a copy of the GNU General Public License  
along with this package; if not, write to the Free Software  
Foundation, Inc., 59 Temple Place - Suite 330, Boston, MA  
02111-1307, USA.

On Debian systems, the complete text of the GNU General  
Public License can be found in `/usr/share/common-licenses/GPL`.

---



# preinst, prerm, postinst, postrm

---

## postrm

```
# Automatically added by dh_installmenu
if [ "$1" = "configure" ] && [ -x /usr/bin/update-menus ]; then update-
menus ; fi
# End automatically added section
# Automatically added by dh_desktop
if [ "$1" = "configure" ] && which update-desktop-database >/dev/null
2>&1 ; then
    update-desktop-database -q
fi
# End automatically added section
# Automatically added by dh_installmime
if [ "$1" = "configure" ] && [ -x /usr/sbin/update-mime ]; then update-
mime; fi
# End automatically added section
```



# debian/rules

```
#!/usr/bin/make -f
# -*- makefile -*-
# Sample debian/rules that uses debhelper.
# This file was originally written by Joey Hess and Craig Small.
# As a special exception, when this file is copied by dh-make into a
# dh-make output file, you may use that output file without restriction.
# This special exception was added by Craig Small in version 0.37 of dh-make.

# Uncomment this to turn on verbose mode.
#export DH_VERBOSE=1

CFLAGS = -Wall -g

ifneq (, $(findstring noopt, $(DEB_BUILD_OPTIONS)))
    CFLAGS += -O0
else
    CFLAGS += -O2
endif

configure: configure-stamp
configure-stamp:
    dh_testdir
    # Add here commands to configure the package.

    touch configure-stamp
```

# debian/rules (II)

```
build: build-stamp

build-stamp: configure-stamp
    dh_testdir
    # Add here commands to compile the package.
    $(MAKE)
    #docbook-to-man debian/xapi.sgml > xapi.1
    touch build-stamp

clean:
    dh_testdir
    dh_testroot
    rm -f build-stamp configure-stamp

    # Add here commands to clean up after the build process.
    -$(MAKE) clean
    dh_clean

install: build
    dh_testdir
    dh_testroot
    dh_clean -k
    dh_installdirs

    # Add here commands to install the package into debian/xapi.
    $(MAKE) install DESTDIR=$(CURDIR)/debian/xapi
```

# debian/rules (III)

```
# Build architecture-independent files here.
binary-indep: build install
# We have nothing to do by default.
```

```
# Build architecture-dependent files here.
```

```
binary-arch: build install
    dh_testdir
    dh_testroot
    dh_installchangelogs
    dh_installdocs
    dh_installexamples
    #
    dh_install
    #
    dh_installmenu
    #
    dh_installdebconf
    #
    dh_installlogrotate
    #
    dh_installemacsen
    #
    dh_installpam
    #
    dh_installmime
    #
    dh_installinit
    #
    dh_installdcron
```

```
#
    dh_installinfo
    dh_installman
    dh_link
    dh_strip
    dh_compress
    dh_fixperms
    #
    dh_perl
    #
    dh_python
    #
    dh_makeshlibs
    dh_installdeb
    dh_shlibdeps
    dh_gencontrol
    dh_md5sums
    dh_builddeb
```

```
binary: binary-indep binary-arch
.PHONY: build clean binary-indep
        binary-arch binary install configure
```

# Generación de un paquete Debian (III)

---

```
trunks@Orthanc:~/desarrollo/xapi-1.6 (0 bytes) $ dpkg-buildpackage  
-rfakeroot -kAA6AB5CB
```

```
[...]
```

```
trunks@Orthanc:~/desarrollo/xapi-1.6 (0 bytes) $ ls ..  
xapi-1.6/      xapi_1.6-1.dsc      xapi_1.6-1_powerpc.deb  
xapi_1.6-1.diff.gz  xapi_1.6-1_powerpc.changes  xapi_1.6.orig.tar.gz
```

# Depuración (lintian/linda)

```
trunks@Orthanc:~/desarrollo/xapi-1.6 (0 bytes) $ lintian -i ../xapi_1.6-1_powerpc.deb
W: xapi: unknown-section unknown
N:
N:   The `Section:' field in this package's control file is not one of the
N:   sections in use on the ftp archive. Valid sections are currently
N:   admin, base, comm, devel, doc, editors, electronics, embedded, games,
N:   gnome, graphics, hamradio, interpreters, kde, libdevel, libs, mail,
N:   math, misc, net, news, oldlibs, otherosfs, perl, python, science,
N:   shells, sound, tex, text, utils, web, and x11.
N:
N:   The section name should be preceded by `non-free/' if the package is
N:   in the non-free distribution, and by `contrib/' if the package is in
N:   the contrib distribution.
N:
N:   Refer to Policy Manual, section 2.4 for details.
N:

trunks@Orthanc:~/desarrollo/xapi-1.6 (0 bytes) $ lintian -i ../xapi_1.6-1.dsc
trunks@Orthanc:~/desarrollo/xapi-1.6 (0 bytes) $ linda -i ../xapi_1.6-1.dsc
trunks@Orthanc:~/desarrollo/xapi-1.6 (0 bytes) $ linda -i ../xapi_1.6-1_powerpc.deb
File /home/trunks/desarrollo/xapi_1.6-1_powerpc.deb failed to process: Format args for
unknown-section don't match Description. (0 vs 1)
```

# Colaboración con Debian

---

- Documentación y traducción  
<http://www.debian.org/doc>
- Empaquetado de software
- Depuración e informe de errores  
<http://www.debian.org/Bugs>

# Documentación para desarrolladores

---

**Documentación online:**

<http://www.debian.org/doc>

**Documentación empaquetada:**

debian-policy, maint-guide,  
debian-reference-en, debian-installer-manual





**interactors**  
activando redes

**Javier Carranza**

[javier.carranza@interactors.coop](mailto:javier.carranza@interactors.coop)

<http://www.interactors.coop>