

Customizing Debian



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Ubuntu

Debian GNU/Linux Project

The World of Debian Customizers

There are **115** distributions derived from Debian.

AbulÉdu • Adamantix • AGNULA GNU/Linux Audio Distribution • ANTEMIUM Linux • Arabbix • ARMA aka Omoikane GNU/Linux • ASLinux • Auditor Security Linux • Augustux • B2D Linux • BEERnix • Biadix • BIG LINUX • Bioknoppix • BlackRhino • Bluerwall GNU/Linux • Bonzai Linux • BrISpeak • Càtix • CensorNet • Clusterix • ClusterKNOPPIX • Condorux • Damn Small Linux • Danix • DebXPde • eduKnoppix • ERPOSS • ESware • Euronode • FAMELIX • Feather Linux • Flonix • Vital Data Forensic or Rescue Kit (FoRK) • Freeduc-cd • GEOLivre Linux • Gibraltar Firewall • GNIX-Vivo • Gnoppix Linux • gnuLinEx • GNU/Linux Kinneret • GNUstep Live CD • grml • Guadalinex • Helix • Hiweed Linux • Impi Linux • Julex • K-DEMar • Kaella • Knoppix Linux Azur • Kalango Linux • KANOTIX • KlusTriX • knopILS • Knoppel • Knoppix • Knoppix 64 • Knoppix STD • KnoppixXMAME • KnoppMyth • Kurumin Linux • LAMPPPIX • Libranet GNU/Linux • LIIS Linux • LinEspa • Linspire • Linux Live Game Project • Linux Loco • LinuxDefender Live! CD • Linuxin • LiVux • Local Area Security Linux (L.A.S.) • Luinx • Luit Linux • MAX: Madrid_Linux • MediaInlinux • MEPIS Linux • Metadistro-Pequelin • MIKO GNYO/Linux • Morphix • Munjoy Linux • Nature's Linux • NordisKnoppix • OGOG Knoppix • Oralux • Overclockix • Quantian • Penguin Sleuth • PHLAK • PilotLinux • Progeny Debian • Rays Linux • ROSLIMS Live CD • Salvare • Santa Fe Linux • Shabdix GNU/Linux • Skolelinux • Slavix • SliX • Slo-Tech Linux • Soyombo Mongolian Linux • SULIX • Tablix on Morphix • Tilix Linux • TupaServer Linux • Ubuntu Linux • UserLinux • WHoppiX • X-evian • Xfld • Xandros Desktop OS • Xarnoppix • ZoneCD • Zopix

The World of Debian Customizers

The most recognizable include:

- Knoppix
- Linspire/Lindows
- MEPIS
- Ubuntu
- UserLinux
- Xandros



Debian: *Ultra* Quick Facts

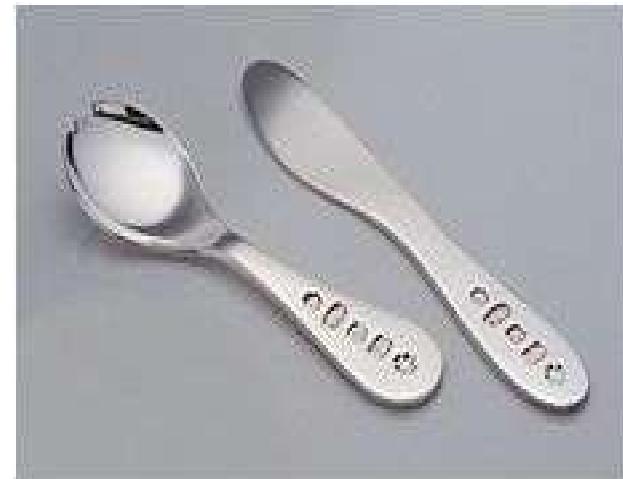
- Debian contains what is 15,000+ packages (and adding 5 each day);
- Debian consists of 1,000 official volunteers;
- Debian includes the work of many companies and organizations;
- Debian is 100% free software;
- Debian has very good package management;



One Size Does *Not* Fit All



To Fork or Not To Fork



Goals of Customizers Overview

The goals and problems of customizers include:

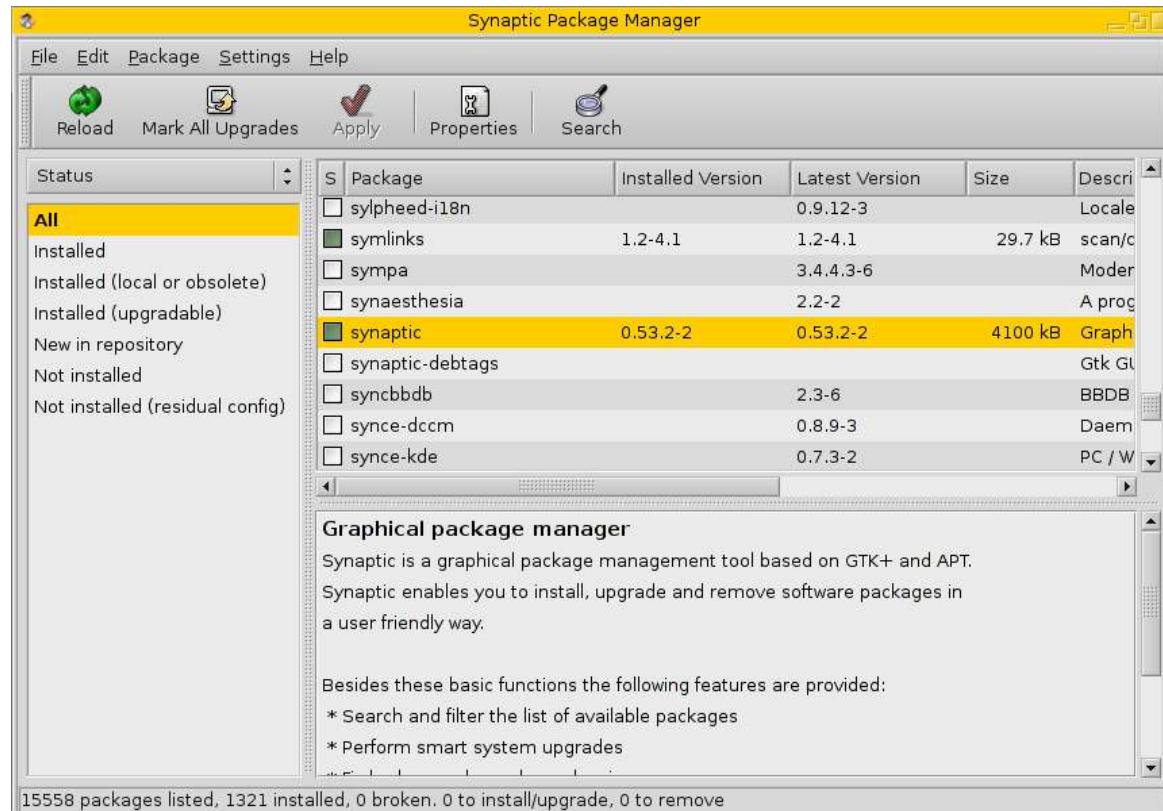
- Custom software selection
- Custom software configuration
- Software replacement
- Custom installers/environments

Plus:

- Gain from others work
- Share your work

Selecting Packages

- Task packages
- Metapackages
- Debtags



Package Selection Details

- Meta-Packages

```
Source: userlinux-enterprise-desktop
Section: userlinux
Priority: optional
Maintainer: Bruce Perens <bruce@perens.com>
Standards-Version: 3.5.8
Package: userlinux-desktop
Architecture: all
Depends: bash, cupsys, cupsys-client, eclipse-sdk, epiphany, evolution, gaim,
gfax, gfaxviewer, gimp, gimp-data-extras, gimp-manual, gimp-perl, gimp-python,
gimpprint-doc, gimpprint-locales, gnome, gnome-control-center, gnome-core,
gnome-cups-manager, gnome-games, gnome-media, gnome-system-monitor, gnome-system-tools,
gnome-terminal, gnome-utils, gthumb, hylafax-client, hylafax-doc, hylafax-server,
kernel-image-2.6-386, mozilla, myspell-dictionary, ooqstart-gnome, openoffice.org,
openoffice.org-help, openoffice.org-hyphenation, openoffice.org-mimelnk,
openoffice.org-thesaurus, pan, planner, rhythmbox, samba, smbclient, smbfs, tomcat4,
totem, usermin-postgresql, wine, wine-doc, wine-utils, winesetuptk, x-ttcidfont-conf,
xchat
Description: Installs the UserLinux desktop software packages.
UserLinux is a logical subset of the Debian system. Installing this package
will cause all of the software packages that are a standard part of the
UserLinux desktop system to be installed.
```

Debtags

Configuring Packages

- *Debconf* preseeding
- Low-priority (or unasked) *Debconf* Questions
- *cfengine* tweaks

Debconf Examples



-- Abraham Lincoln

WORD OF THE DAY:
No fortunes found

```
1214 13:35 kamna:~% sudo dpkg-reconfigure man-db
debconf: unable to initialize frontend: Gnome
debconf: (Unable to load Gnome -- is libgnome2-perl installed?)
debconf: falling back to frontend: Dialog
1214 13:35 kamna:~% sudo dpkg-reconfigure man-db
1214 13:36 kamna:~% sudo dpkg-reconfigure man-db
Configuring man-db
```

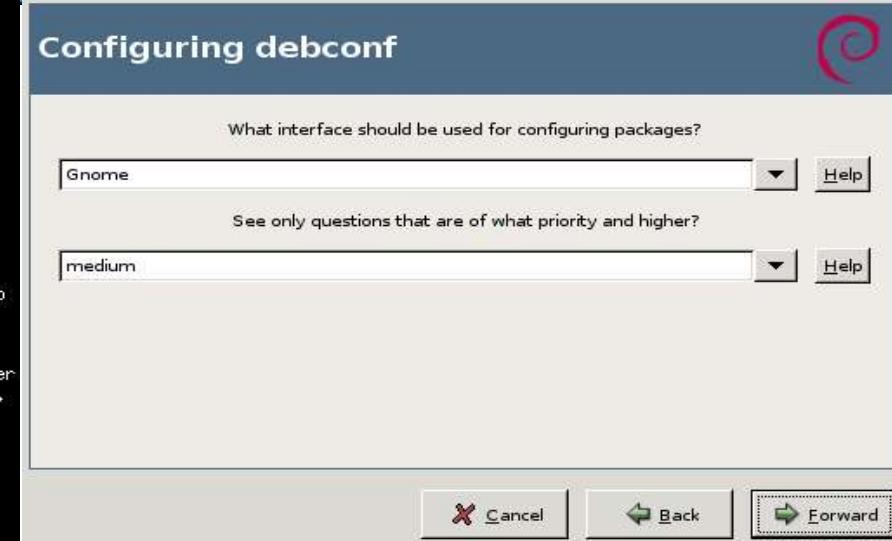
The man and mandb program can be installed with the set-user-id bit set, so that they will run with the permissions of the 'man' user. This allows ordinary users to benefit from the caching of preformatted manual pages ('cat pages'), which may aid performance on slower machines.

Cached man pages only work if you are using an 80-column terminal, to avoid one user causing cat pages to be saved at widths that would be inconvenient for other users. If you use a wide terminal, you can force man pages to be formatted to 80 columns anyway by setting MANWIDTH=80.

Enabling this feature may be a security risk, so it is disabled by default. If in doubt, you should leave it disabled.

Should man and mandb be installed 'setuid man'?

```
File Edit Options Buffers Tools Insert Help
# You are using the editor-based debconf frontend to configure your system. See the
# end of this document for detailed instructions.
#####
#
# The man and mandb program can be installed with the set-user-id bit set, so that
# they will run with the permissions of the 'man' user. This allows ordinary users
# to benefit from the caching of preformatted manual pages ('cat pages'), which may
# aid performance on slower machines.
#
# Cached man pages only work if you are using an 80-column terminal, to avoid one
# user causing cat pages to be saved at widths that would be inconvenient for other
# users. If you use a wide terminal, you can force man pages to be formatted to 80
# columns anyway by setting MANWIDTH=80.
#
# Enabling this feature may be a security risk, so it is disabled by default. If in
# doubt, you should leave it disabled.
#
# (Choices: yes, no)
# Should man and mandb be installed 'setuid man'?
man-db/install-setuid="no"
-fuu----F1 file92iBQo.sh (Shell-script[zsh])--L1--Top---
Beginning of buffer
```



cfengine Tweaks

```
editfiles:

{ $(ftp)/etc/passwd

AutoCreate
EmptyEntireFilePlease
AppendIfNoSuchLine "ftp:x:${uid}:${gid}:Anonymous FTP:${ftp}:/bin/sync"
}

{ $(ftp)/etc/group

AutoCreate
EmptyEntireFilePlease
AppendIfNoSuchLine "ftp::${gid}:"
}

{ $(ftp)/etc/shadow

AutoCreate
EmptyEntireFilePlease
AppendIfNoSuchLine "ftp:NP:6445::::::"
}
```

Replacing Packages

- Shared package repositories
- Version Control Magic



Creating Custom Installers/Environments

Examples:

- Progeny uses Anaconda, the Redhat installer, to install their Debian based system.
- Knoppix, Morphix, etc. are "Live" distributions meant to be run off a CD.

Summary

- **Problem:** Debian is great -- But can't be everything everyone wants it to be at once.
- **Answer:** Balance the global and local in creating infrastructure to:
 - Select software
 - Configure software
 - Replace software
 - Install and run software in different ways
- **Result:**
 - A complex and varied set of approaches.
 - A single united goal of inter-project and inter-distribution collaboration and ***Total World Domination.***

