

Customizing Debian

“Fork Yours with Debian GNU/Linux”



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Ubuntu

Debian Project

Software in the Public Interest

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 • Bluewall 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 • Guadalinux • Helix • Hiweed Linux • Impi Linux • Julex • K-DEMar • Kaella • Knoppix Linux Azur • Kalango Linux • KANOTIX • KlusTriX • knopILS • Knoppel • Knoppix • Knoppix 64 • Knoppix STD • KnoppiXMAME • KnoppMyth • Kurumin Linux • LAMPPIX • 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.) • Luinux • Luit Linux • MAX: Madrid_Linux • Mediainlinux • MEPIS Linux • Metadistro-Pequelin • MIKO GNYO/Linux • Morphix • Munjoy Linux • Nature's Linux • NordisKnoppix • OGo 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 • TupiServer 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: Quick Facts

- Debian contains loads of packages;
- 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;



But What *Is* Debian?



Is Debian the code, people, principles, politics, policy?

One Size Does *Not* Fit All



To Fork or Not To Fork



Tonight's Case Studies

- Ubuntu
- UserLinux
- Internal *CDDs*:
Skolelinux, Debian-NP



debian♦np

Goals of Customizers Overview

The goals and problems of customizers include:

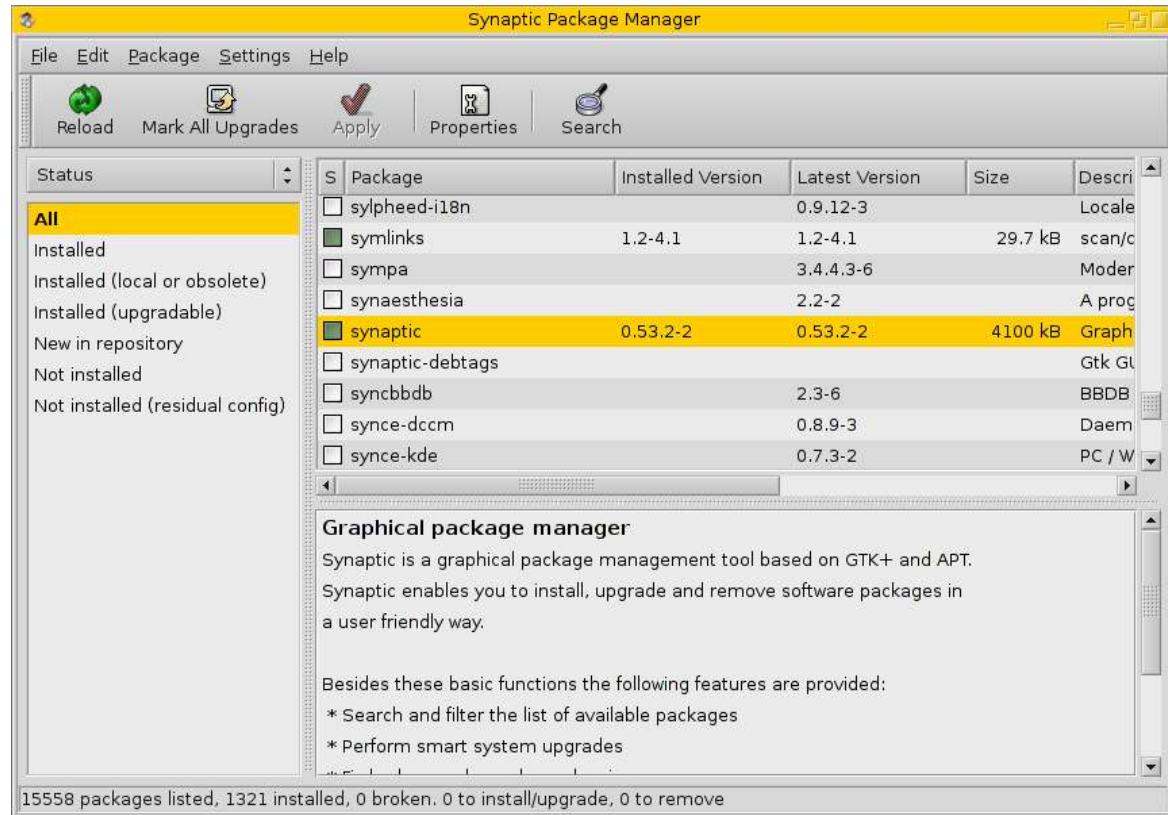
- Custom software selection
- Custom software configuration
- Software replacement
- Custom installers/environments

Plus:

- Gain from others work
- Share your work

Selecting Packages

- Task packages
- Metapackages
- Debtags



Package Selection Details

- Meta-Packages

```
Source: userlinux-emterprise-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, ghfaxviewer, 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, oqstart-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

The image displays four different examples of the debconf configuration system:

- Terminal-based menu:** A window titled "Debian Configuration" showing a menu for "Configuring Debconf". The question is "What frontend should be used for configuring packages?". The options are Slang (selected), Dialog, Text, Web, and Noninteractive. A second question asks for the priority to ignore questions with a priority less than, with options critical, high, medium (selected), and low.
- Terminal-based help:** A window titled "Help" providing instructions on how debconf prioritizes questions based on their priority (low, medium, high, critical) and how to select the lowest priority of question to see.
- VIM editor:** A window titled "VIM - /var/lib/debconf/input19129/configuration.sh" showing the configuration file. The current line is "debconf/frontend="Slang"". The file contains instructions on how to use the different frontends and how to select the type of user interface.
- Graphical window:** A window titled "Configuring Debconf" with a Debian logo. It asks "What interface should be used for configuring packages?" with a dropdown menu set to "Slang". It also asks "Ignore questions with a priority less than.." with a dropdown menu set to "medium". There are "Back", "Next", and "Cancel" buttons.

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.

Can't We All Just Get Along



Where Things Are Going

- While the technical solutions are evolving, the political and social problems are still largely unaddressed.
- With LinEx, Ubuntu, Knoppix and others, we are already seeing derivatives of derivatives.



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.***

