

# The PCLinuxOS magazine

Volume 64

May, 2012



**Gnome 2.32:  
Miscellaneous Gnome Apps**

**Gnome 2.32:  
Optical Disc Burners**

**Gnome 2.32:  
Tips, Tweaks & Tricks**

**Gnome 2.32: Resources**

**WindowMaker on PCLinuxOS:  
WindowMaker Themes**

**Fix An NTFS Partition With fsck**

**Yakuake: A Short Review**

**Fun With KDE Screen Saver**

**Customizing Your  
Firefox Web Browser**

**Linux Financial Apps:  
Money Manager EX**

**Moving VirtualBox  
Hard Drives With Ease**

**Why PCLinuxOS Shuns sudo Use**

**And more inside!**

# Table Of Contents

- 3 *Welcome From The Chief Editor*
- 4 *Gnome 2.32: Four Miscellaneous Desktop Apps*
- 8 *Fun With KDE Screen Saver*
- 9 *Screenshot Showcase*
- 10 *Gnome 2.32: Two Optical Burners*
- 13 *Screenshot Showcase*
- 14 *Marks Quick Gimp Tip & Double Take*
- 15 *Forum Foibles: Featuring Fabulous Foibler Sproggy*
- 16 *Fix A NTFS Partition With fsck*
- 17 *Linux Financial Apps: Money Manager EX*
- 19 *Screenshot Showcase*
- 20 *Gnome 2.32: Tips, Tricks & Tweaks*
- 24 *Customize Firefox Web Browser*
- 26 *Screenshot Showcase*
- 27 *Command Your Disks With dd*
- 30 *Why PCLinuxOS Shuns sudo Use*
- 31 *Run Dragon Naturally Speaking Under Wine*
- 33 *ms\_meme's Nook: Heroes Of PCLinuxOS*
- 38 *Move VirtualBox Drives With Ease*
- 40 *Screenshot Showcase*
- 41 *Gnome 2.32: Resources*
- 42 *WindowMaker On PCLinuxOS: WindowMaker Themes*
- 49 *Screenshot Showcase*
- 50 *Alternate OS: PC-BSD, Part 2*
- 53 *A Short Review: Yakuake*
- 54 *More Screenshot Showcase*

## The PCLinuxOS magazine

The PCLinuxOS name, logo and colors are the trademark of Texstar.

The PCLinuxOS Magazine is a monthly online publication containing PCLinuxOS-related materials. It is published primarily for members of the PCLinuxOS community. The magazine staff is comprised of volunteers from the PCLinuxOS community.

Visit us online at <http://www.pclosmag.com>

This release was made possible by the following volunteers:

**Chief Editor:** Paul Arnote (parnote)

**Assistant Editor:** Meemaw

**Artwork:** Sproggy, Timeth, ms\_meme, Meemaw

**Magazine Layout:** Paul Arnote, Meemaw, ms\_meme

**HTML Layout:** Rudge, Sproggy

### Staff:

Neal Brooks	ms_meme
Galen Seaman	Mark Szorady
Patrick Horneker	Darrel Johnston
Guy Taylor	Meemaw
Andrew Huff	Gary L. Ratliff, Sr.
Pete Kelly	Daniel Meiß-Wilhelm
Archie Arevalo	

### Contributors:

Chuck Rice	longtomjr
Jim Wilkinson	AndrzejL
Old-Polack	

The PCLinuxOS Magazine is released under the Creative Commons Attribution-NonCommercial-Share-Alike 3.0 Unported license. Some rights are reserved.  
Copyright © 2012.





# Welcome From The Chief Editor

Talk about making my job hard(er)! Some months, there are so many outstanding screenshots to choose from for the magazine's Screenshot Showcase feature. As if that wasn't hard enough to sort through on a monthly basis, now this month went to the other extreme – too few to choose from.

Oh, there were plenty of screenshots posted over the past month. But many of them were from two users who are "prolific screenshot posters," and so that we don't feature just one user or two users in the monthly Screenshot Showcase, we've limited it to publishing just one screenshot per user per month in the magazine. We also try to feature as many of the different desktop environments that PCLinuxOS users are using.

Unfortunately, a good many of the screenshots (some very good ones, at that) had to be disallowed, due to the fact that they were of a version of PCLinuxOS that is not available to general users – that being the unsupported 64 bit version that is still in testing. Others prominently featured kernels that are still in testing, so they had to be disallowed, as well. Still others are disallowed because there is no indication of which desktop environment the user is employing, and their desktop environment unfortunately cannot be discerned by just looking at the image. Some users have gotten very good at creating stealthy desktops with a nonspecific or "desktop-agnostic" appearance.

Screenshot Showcase was started for a few reasons. First of all, it gives the average user the opportunity to appear and be mentioned in the monthly magazine. Secondly, it showcases to non-PCLinuxOS users the diversity of our great OS, as well as some of the things that it is capable of. With that in mind, the screenshots must be representative of what is immediately available to new users. Third,



in a roundabout way, it pays homage to those dedicated individuals who work so hard at maintaining the quality and diversity of PCLinuxOS. Through Screenshot Showcase, those developers and maintainers can enjoy watching what the various PCLinuxOS users are capable of doing with their systems, given the tools that have been provided to them.

Of course, once the 64 bit version of PCLinuxOS becomes publicly available, then one of those problems with collecting images from the forum for the Screenshot Showcase entries will be solved. I reckon that the issue of using kernels in the testing section will also become moot. Screenshot Showcase images are collected from the Monthly Screenshots thread in the PCLinuxOS forum every month, so all you have to do to be considered for inclusion in the magazine is post your screenshots in the forum thread. However, keep in mind some of the other guidelines we adhere to with the decision to include or disallow screenshots for publication in the magazine.

The May 2012 issue represents the final installments in the magazine's article series on Gnome 2.32. Everyone is bound to find something of interest, ranging from ms\_meme's tribute to the PCLinuxOS forum "heroes," to an in depth look at how to use the dd Linux command line tool.

Until next month, I bid each of you peace, happiness, serenity and prosperity.



# Gnome 2.32: 4 Miscellaneous Desktop Apps

by Darrel Johnston (djohnston)

## gnome-specimen

According to the Synaptic description, Gnome Specimen is an application to “view and compare fonts installed on your system.”

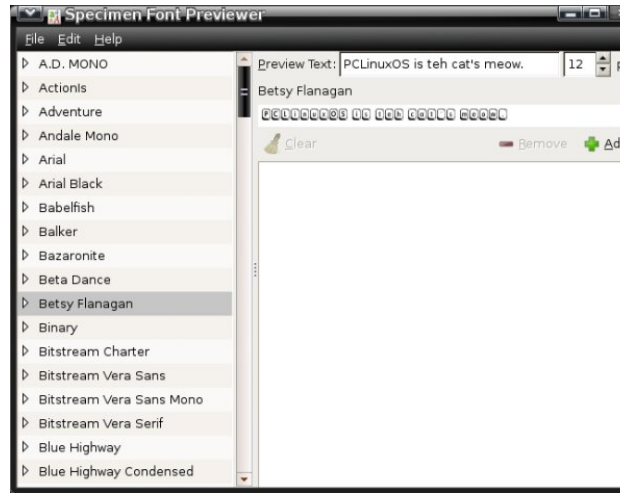
Gnome Specimen currently features:

- A list of all fonts available (the left pane)
- A list of font previews (the right pane)
- Configurable preview text and font size
- Configurable foreground and background colors used in the preview pane”

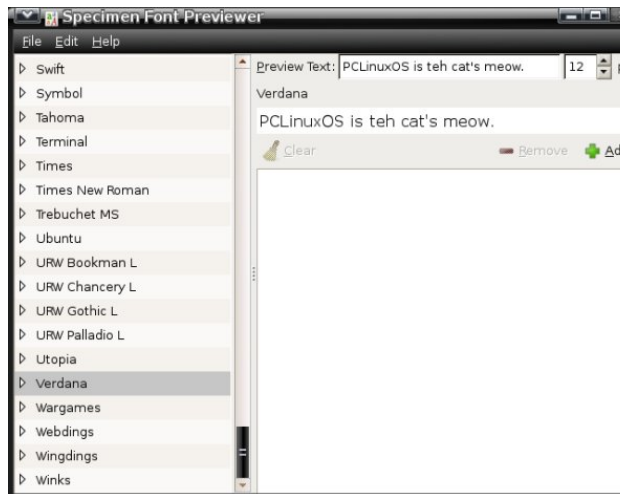
Other than being able to change the foreground and background colors of the preview, it has the same basic preview functions as the PCLinuxOS Control Center font manager (PCC > System > Manage, add and remove fonts). The other difference is that Gnome Specimen cannot add or delete system fonts. It is a bit dated, having not been updated since December 31st, 2007.



An unorthodox looking font.



This one is much more readable.



wallpapoz

Wallpapoz is a Gnome wallpaper configuration tool. You can have a different wallpaper for each workspace, as well as having them change automatically on a user-defined schedule. After installing the package using Synaptic, I had no menu entry for it. A quick look at the supplied desktop file showed why. The original wallpapoz.desktop file is shown below.

```
[Desktop Entry]
Encoding=UTF-8
Name=Wallpapoz
GenericName=Wallpapers tool
GenericName[id]=Alat gambar latar desktop
GenericName[ja]=
GenericName[sv]=Skrivbordsbakgrund verktyg
GenericName[de]=Wallpaper Tool
GenericName[es]=Configurar la imagen del fondo
GenericName[fr]=Outil pour les fonds d'écran
Comment=Gnome Desktop Wallpapers
Configuration Tool
Comment[id]=Alat Konfigurasi Gambar Latar
Desktop Gnome
Comment[ja]=Gnome
Comment[sv]=Gnome Skrivbord Bakgrunds
Konfigurerings Verktyg
Comment[de]=Gnome Desktop-Hintergrund
Konfiguration
Comment[es]=Herramienta para Configurar La
Imagen Del Fondo Del Escritorio
Comment[fr]=Outil de configuration des fonds
d'écran pour Gnome
Exec=wallpapoz
Icon=wallpapoz.png
Terminal=false
Type=Application
Categories=Utility;
```

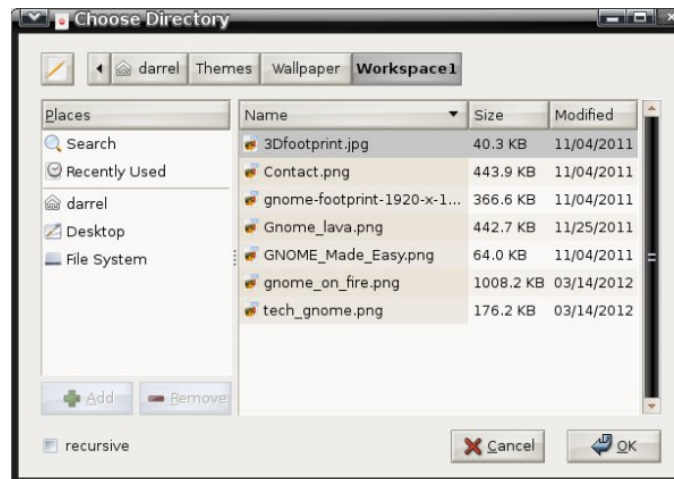
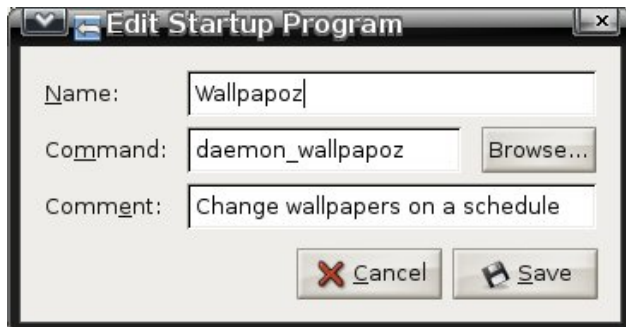
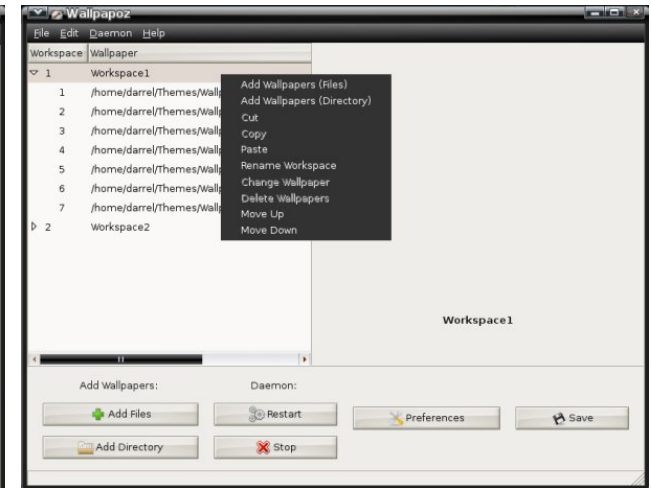
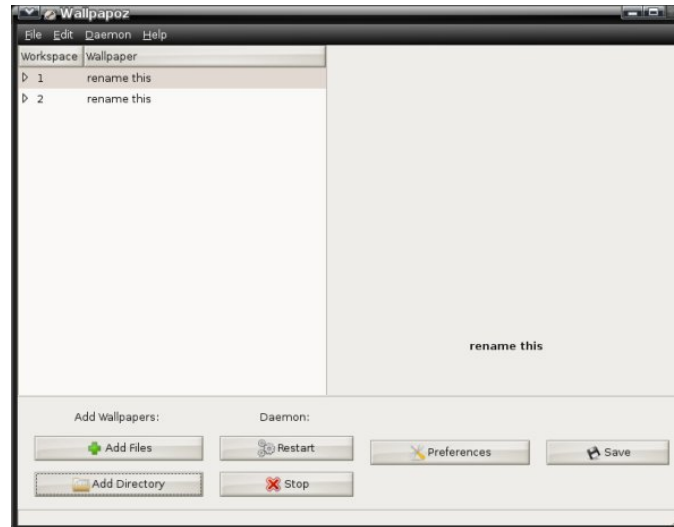


There is no proper category defined. Change the **Categories=** line to what is shown below.

**Categories=GTK;X-MandrivaLinux-System-Configuration;Settings;**

Save the edited `/usr/share/applications/wallpapoz.desktop` file to `~/.local/share/applications/wallpapoz.desktop`. The menu entry will then survive any updates to the wallpapoz package.

To have the wallpaper changer start automatically on login, add `/usr/bin/daemon_wallpapoz` to startup apps (System > Control Center > Startup Applications in the main menu).



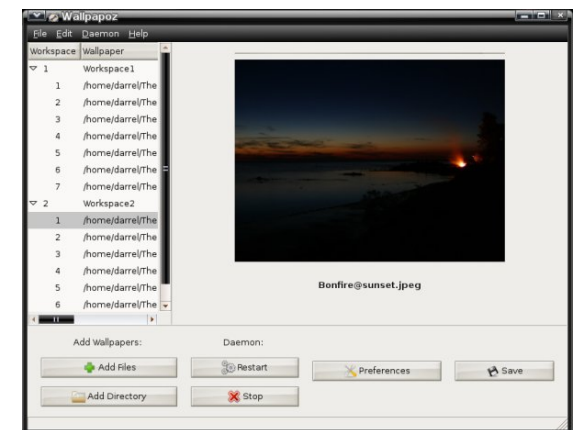
When the application is first started, all desktops will have one wallpaper defined, the currently configured one. Each workspace will also contain the default "rename this" for the user-definable Wallpaper field. Double-click the entry to edit it. Click on the arrow to the left of a workspace number to see the wallpapers that are associated with it (center, top).

You can choose to add individual files or an entire directory's files to a workspace. If you choose a directory, you can also add all subdirectories by checking the recursive option. I chose to create two directories, one for each workspace, and store the wallpaper images in each workspace's folder (center, bottom).

Right-clicking the wallpaper group name or an individual wallpaper in the group will bring up a window with additional options (top, right).

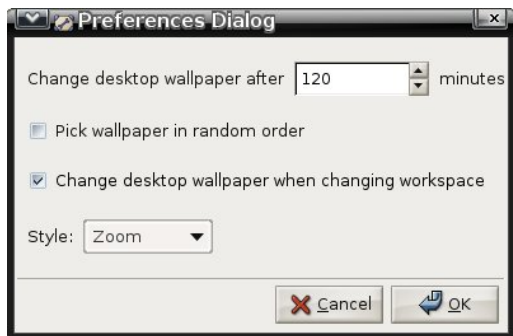
This is a preview of the first wallpaper in the Workspace1 group (center, right),

This is a preview of the first wallpaper in the Workspace2 group (bottom, right),



You can stop and restart the daemon by clicking a button. Click the Preferences button to open the configuration window.

I tried setting the change interval to 0 minutes, so that the wallpapers would never change. But, after saving, it reverts to 1 minute. Nevertheless, this application offers the ability to have a different wallpaper for each workspace in Gnome2 by checking the Change desktop wallpaper when changing workspace option. Click the Style pulldown menu button to choose the method of scaling the wallpaper image to the desktop.



Here is workspace number one showing one of its wallpapers (center, top).



Here is workspace number two showing one of its wallpapers (center, middle).



## gpass

The GNOME Password Manager lets you manage a collection of passwords. The password collection is stored in an encrypted file, protected by a master-password. GPass encrypts the password file by using Blowfish encryption. It has a heavy dependency on a full Gnome desktop environment. Its functions are similar to Keepass and Revelation. This is another dated application, as the last version, 0.5.1, was released on March 25th, 2006.

Once installed, the menu entry is in the Office section of the main menu. The first run window is shown below.



Enter a master password.



Click the Add button to add a password for an application.





## gnome-pim

The GNOME Personal Information Manager currently consists of:

- gnomecal : personal calendar and todo list
- gnomecard: contact list of friends and business associates

After installing the gnome-pim package using Synaptic, I had no menu entries for these applications. There is no desktop file included for the Gnome Calendar and Planner application, so I created my own and stored it in the `~/local/share/applications` directory. The contents of the desktop file are shown below.

## gnomecal.desktop

```
[Desktop Entry]
Encoding=UTF-8
Name=Calendar & Planner
Comment=Manage your appointments and deadlines
Exec=/usr/bin/gnomecal
Terminal=false
Type=Application
StartupNotify=false
Icon=/usr/share/icons/gnomecal.png
Categories=Utility;X-MandrivaLinux-Office-Accessories;GTK;
X-Desktop-File-Install-Version=0.11
```

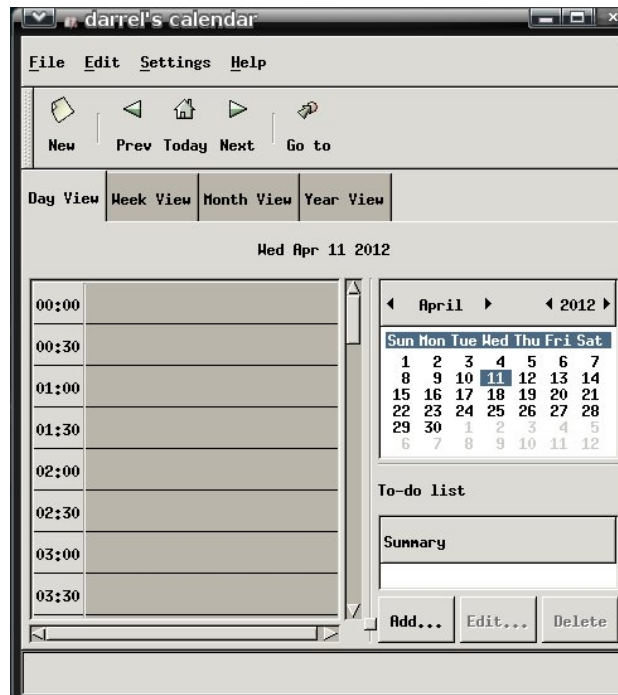
The Gnome Contacts Manager had a desktop file in the `/usr/share/gnome/apps/Applications` directory, but the file had no `Categories=` entry at all, and did not show in the menu. Again, I created one and saved it as `~/local/share/applications/gnomecard.desktop`. The contents are shown below.

## gnomecard.desktop

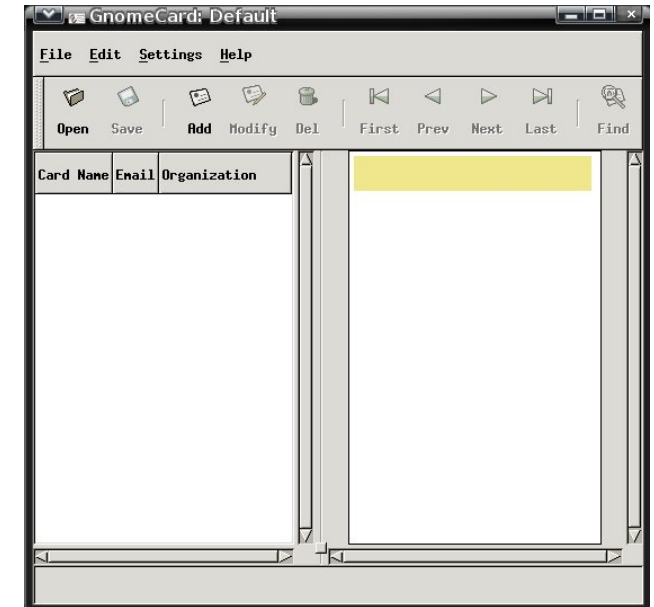
```
[Desktop Entry]
Encoding=UTF-8
Name=Contacts Manager
```

```
Comment=Manage your contacts
Exec=/usr/bin/gnomecard
Terminal=false
Type=Application
StartupNotify=false
Icon=/usr/share/pixmaps/gnome-gnomecard.png
Categories=Utility;X-MandrivaLinux-Office-Accessories;GTK;
X-Desktop-File-Install-Version=0.11
```

I found the calendar and planner to be a bit counter intuitive. You can add an item by selecting a day, then clicking on the time period in the left pane. Even if you enter the beginning time as the half hour, the planner enters the item as beginning on the hour. Once an item has been added, it cannot be edited or deleted, except in the To-do list Summary area. Also, there are no alarms or notifications given when an item is due. You have to open the planner application to scan the entered items.



The contacts list is a standalone application. None of the contact information can be shared with other applications, making its use somewhat limited. I should also add that both the Personal Information Manager applications look outdated, as if they were designed with GTK version 1.



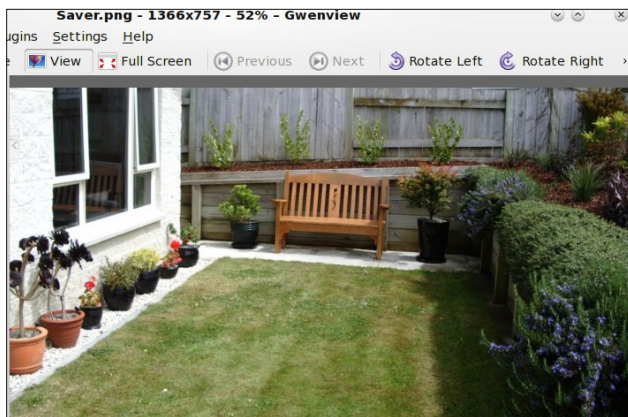
# Fun With KDE Screen Saver

by Jim Wilkinson (jimwilk)

The screensaver in KDE has a shortest time of 1 minute. But this can be altered down to 0 seconds if that appeals. First, using Dolphin or Konqueror as Super User, go to /usr/share and create a new folder there called svr.



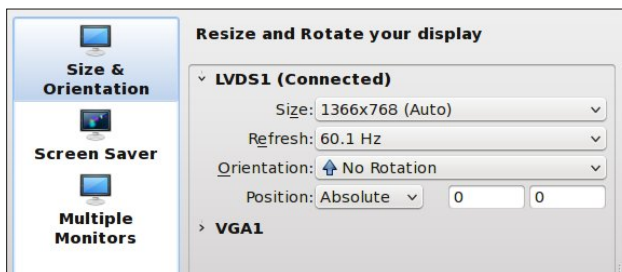
Next, find a suitable photo from your collection and save it in /usr/share/svr as saver.png (for example)



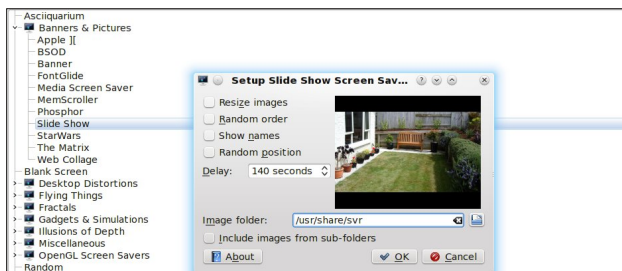
Now, we can setup the screen saver to use this photo. From Configure your Desktop, click on Display and Monitor in Row 4.



Click on Screen Saver:



Notice that I use Slide Show under Banners and Pictures. Press Setup.

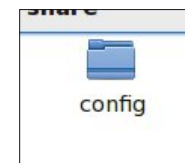
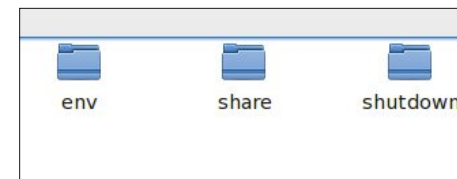
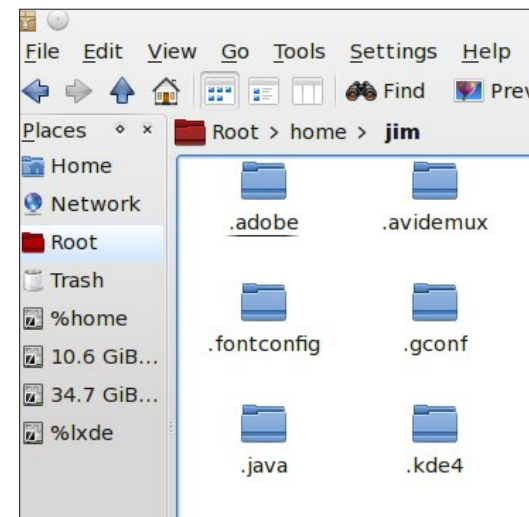


Under Setup, I use Image Folder as /usr/share/svr. Note too that I have turned off Show Names etc. and set the delay to its highest value 140 seconds. There is the photo of our outside seating area that I had stored there as saver.png.

Now, to have some fun with the delay, using Konqueror or Dolphin Super User, go to /home/jim/



With hidden files checked, find the folder .kde4 and click on it. Next click on **share** and then **config**.



Find the file labeled kscreensaverrc and right click on it. Open it with Kwrite:

You will notice that I have set the Timeout=0. That will give a delay of 0 seconds. Set whatever Timeout value that you want.



```
kscreensaverrc [modified] - KWrite
File Edit View Tools Settings Help
New Open Save Save As Close U
[ScreenSaver]
Enabled=false
Lock=false
LockGrace=0
PlasmaEnabled=false
Saver=KSlideshow.desktop
Timeout=0
```

Change Enabled=**false** to Enabled=**true** and save the file.

When you are tired of having the screensaver interrupting your work, go to Configure Your Desktop and turn off the screensaver. Have fun – even play some tricks on other users of your machine.

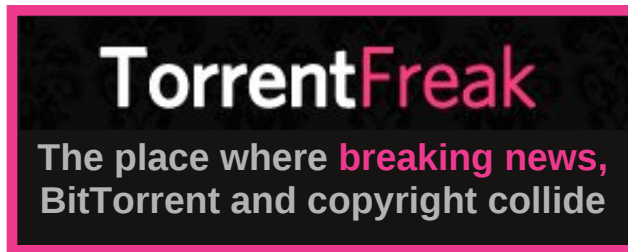


**PCLinuxOS**  
Radically Simple

A magazine just isn't a magazine without articles to fill the pages.

If you have article ideas, or if you would like to contribute articles to the PCLinuxOS Magazine, send an email to:  
[pclinuxos.mag@gmail.com](mailto:pclinuxos.mag@gmail.com)

We are interested in general articles about Linux, and (of course), articles specific to PCLinuxOS.



# Screenshot Showcase



Posted by Hootiegibbon, April 25, 2012, running KDE4.



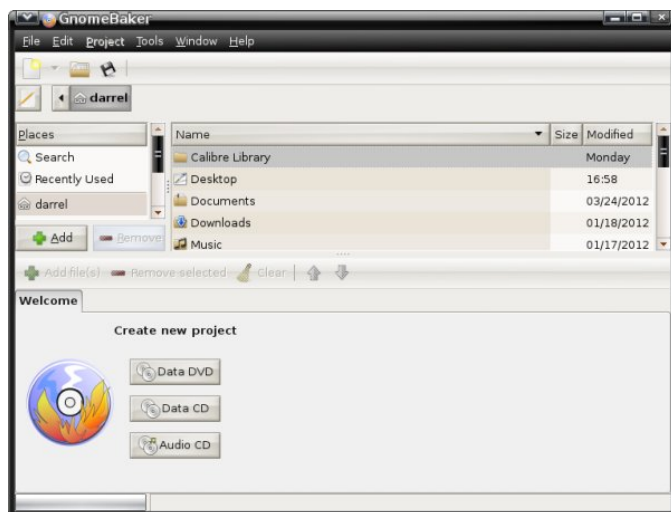
# Gnome 2.32: Two Optical Burners

by Darrel Johnston (djohnston)

## GnomeBaker

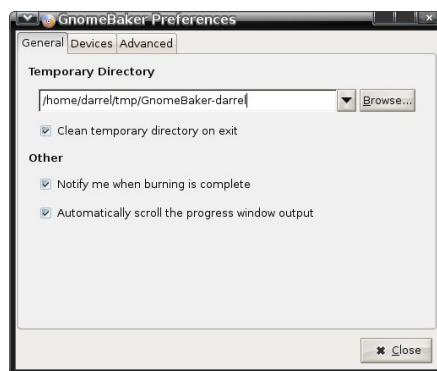
Described as GnomeBaker CD/DVD Writer in the menu, it can be found in the Archiving section. It is usually the default optical disc burning application for a Gnome desktop. The [project page](#) shows version 0.6.4 as being the current one, last updated on June 9th, 2011. This is the version in the PCLinuxOS repositories.

After starting the application, you will see the default window shown below.

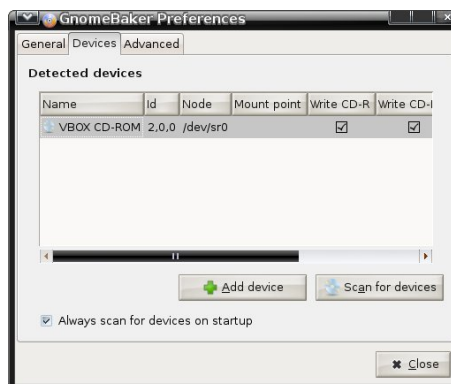


The Edit pull down menu has only one option, Preferences. It is here that you set the default settings you want when you open the program. These settings can be changed while performing an operation. But, the program defaults won't be changed unless done from the Preferences window.

Under the General tab, you can choose a temporary directory to use, and whether or not to clean the directory upon exit of the program. You can also choose to be notified when burning has completed, and whether to display a progress bar or not.

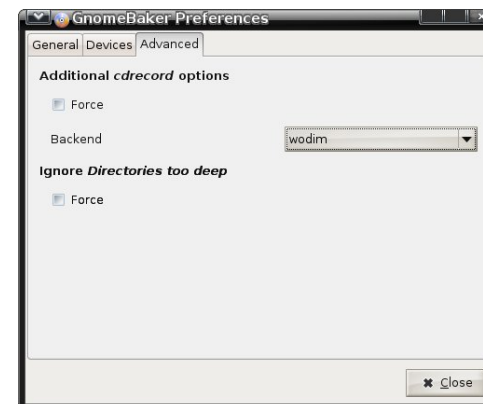


Selecting the Devices tab shows the system's optical devices, and whether they are writable or not. I found that you can manually check and uncheck the Write CD-R, Write CD-RW, Write DVD-R and Write DVD-RAM boxes, but it makes no difference to the actual operability of the program or the optical device being used. You can click the Scan for devices button, and all appropriate write options for a given device will be automatically checked.

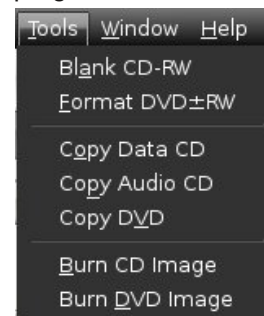


You can manually add a device to the list and always scan for devices at program startup.

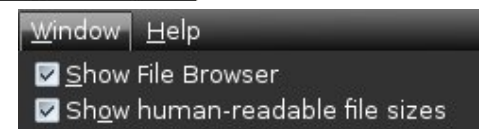
Selecting the Advanced tab shows that the default backend used for burning is wodim. I did not attempt to add any other backends. You can also opt to force recording and ignore directories too deep warnings. I do not know if the latter option will overcome some of the limitations of the genisoimage CLI program.



Selecting the Tools dropdown menu from the program's main window shows all of the burning options.



The Window dropdown menu is shown below. Note that if Show File Browser is not selected, you won't see the Places and Name sections in the program's main window.





- Auto
- 1X
- 2X
- 4X
- 6X
- 8X
- 10X
- 12X
- 16X
- 24X
- 32X
- 40X
- 48X
- 52X

I chose to erase the contents of a rewritable CD. 4X was chosen by



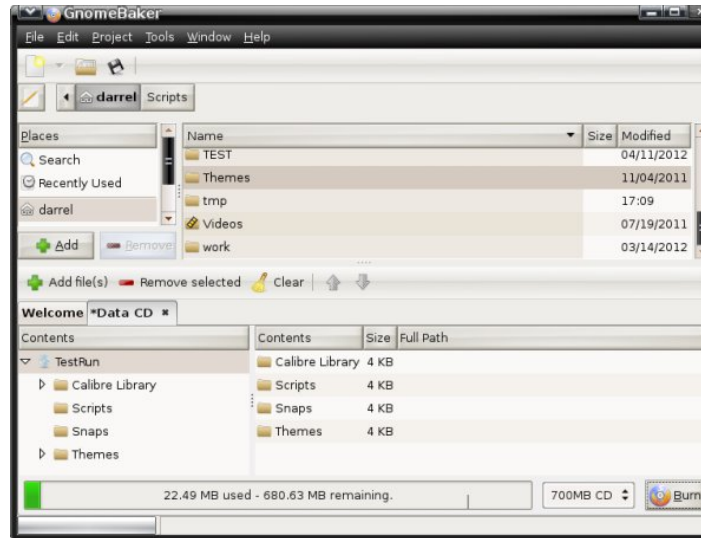
default, which was the speed the disc was last written at.

Selecting the Speed pulldown menu shows all possible speeds available on the burning device (above left).

The window below shows the CD being erased. After the operation completed, I was given a message to respond to and then returned to the main program window.

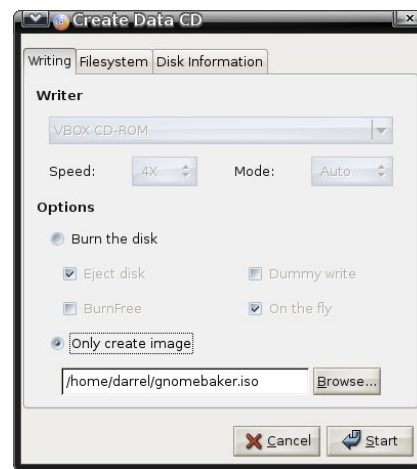


From the main window, I next clicked the Data CD button. In the Contents section, double-click "GnomeBaker data disk" and enter a new name to change the volume label of the CD or DVD. I



changed it to "TestRun". You can simply drag and drop files and folders from the file browser section to the contents section to have them included. Used and remaining space is displayed. Once your selections are complete, click the Burn button.

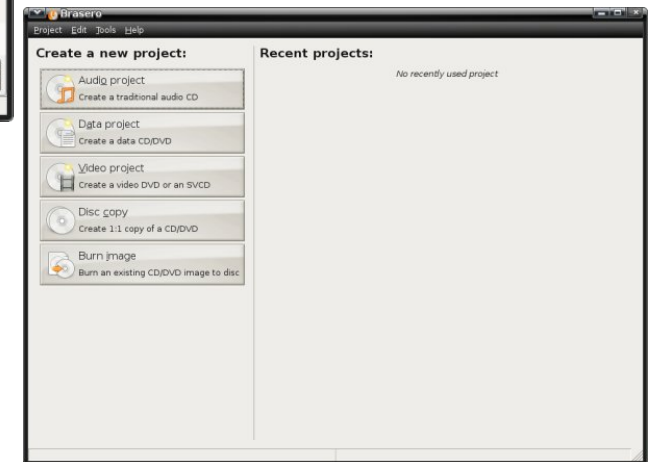
You can elect to write the contents to an image file instead of an optical disc. For some reason, the previously entered volume name is not carried over to an image file as it is to a disc. So, change the name of the image's iso file in the next window from "gnomebaker.iso" to whatever is desired.



all the bells and whistles of K3B, but it is adequate for almost any optical burning task.

## Brasero

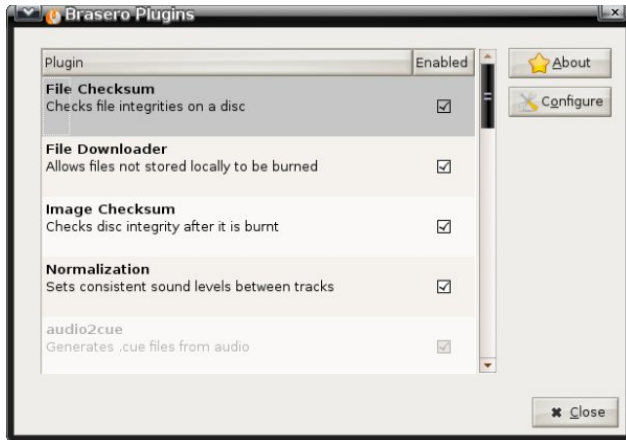
Described as Brasero Disc Burner in the menu, it can also be found in the Archiving section. According to the [project page](#), the latest stable version is 3.0.0, dated April 5th, 2011. But, browsing the [archive](#) at <ftp://ftp.gnome.org/pub/GNOME/sources/brasero/>, we see that the latest version in the directory tree is 3.4.1, released on April 16th, 2012. The version in the PCLinuxOS repositories is 2.32.1. Shown below is the main window that is displayed when the program is launched.



The functions contained within the program are handled by plugins. The plugins window is shown below. Notice that one of the plugins is grayed out, or "ghosted".

In fact, only the first four plugins listed can be selected in order to activate or deactivate it or configure the options for that plugin. Reading the package's document file at /usr/share/doc/brasero-2.32.1/README, we see this:





Notes on plugins for advanced users

### 1. configuration

From the UI you can only configure (choose to use or not to use mostly) non essential plugins; that is all those that don't burn, blank, or image.

If you really want to choose which of the latters you want brasero to use, one simple solution is to remove the offending plugin from brasero plugin directory ("`install_path/lib/brasero/plugins/`") if you're sure that you won't want to use it.

You can also set priorities between plugins. They all have a hardcoded priority that can be overridden through Gconf. Each plugin has a key in "`/apps/brasero/config/priority`".

If you set this key to -1 this turns off the plugin. If you set this key to 0 this leaves the internal hardcoded priority - the default that basically lets brasero decide what's best.

If you set this key to more than 0 then that priority will become the one of the plugin - the higher, the more it has chance to be picked up.

### 2. additional note

Some plugins have overlapping functionalities (i.e. `libburn/wodim/cdrecord/growisofs`, `mkisofs/libisofs/genisoimage`); but they don't always do the same things or sometimes they don't do it in the same way. Some plugins have a "speciality" where they are the best. That's why it's usually good to have them all around

As examples, from my experience:

- `growisofs` is good at handling DVD+RW and DVD-RW restricted overwrite

- `cdrdao` is best for on the fly CD copying

- `libburn` returns a progress when it blanks/formats

That is a very imprecise way to handle program functions to me. The best way to handle program plugins would be to include a plugin manager that either enables or disables them. The installation path for the plugins is `/usr/lib/brasero/plugins/`. Asking a user to remove unwanted plugins by deleting files in the system area is asking too much. Suppose the user decides s/he wants that function later on? Reinstall the program?

While browsing the plugin list, I noticed many items did not show a check mark as being enabled. The first was `cdrdao`, used for copying, burning and blanking CDs. That function should be enabled by default. I opened Synaptic, installed the `cdrdao` package and restarted Brasero. The `cdrdao` plugin was then enabled, but still grayed out. The `dvdauthor` plugin was disabled, which is used for creating disc images suitable for video DVDs. Installing the `dvdauthor` package from Synaptic enabled the plugin. The `libdvdcss2` package was also installed to enable the `dvdcss` plugin. That one is understandable, as the package is considered to be illegal in some countries.

Going further, the `dvd-rw-format` plugin was disabled. Installing the `dvd+rw-tools` package enabled it. The `transcode2vob` plugin shows that "mplex" GStreamer plugin could not be found. In an attempt to enable the plugin, I installed the `gstreamer0.10-a52dec` and `gstreamer0.10-dv` packages, but to no avail. The `transcode2vob` plugin is inoperable, although the `/usr/lib/brasero/plugins/` directory contains both `libbrasero-transcode.so` and `libbrasero-vob.so` files. The `vcdimager` plugin states that "vcdimager" could not be found in the path. Yet, the file `libbrasero-vcdimager.so` exists in the `/usr/lib/brasero/plugins/` directory.

Even more puzzling are these three plugins, not enabled:

`cdrecord` - burns, blanks and formats CDs and DVDs

`mkisofs` - creates disc images from a selection of files

`readcd` - copies any optical disc to a disk image

Not only should all three of those plugins be enabled by default, each one is listed as a symbolic link pointing to another program. Well, the binary executable programs all exist in the `/usr/bin` directory, named `cdrecord`, `mkisofs` and `readcd`, the exact same names as the plugins. Not only that, the files `libbrasero-cdrecord.so`, `libbrasero-mkisofs.so` and `libbrasero-readcd.so` exist in the `/usr/lib/brasero/plugins/` directory. If anything, those plugins should have double functionality, not none at all.

In searching the internet for information on the Brasero plugins, I found quite a few user posts echoing the lack of usability, some as late as May of last year. I suspect that having a newer version of the program in our repositories would not add much functionality, if any at all.

Of the plugins that are enabled by default, and not ghosted, Normalization should not be on by default.

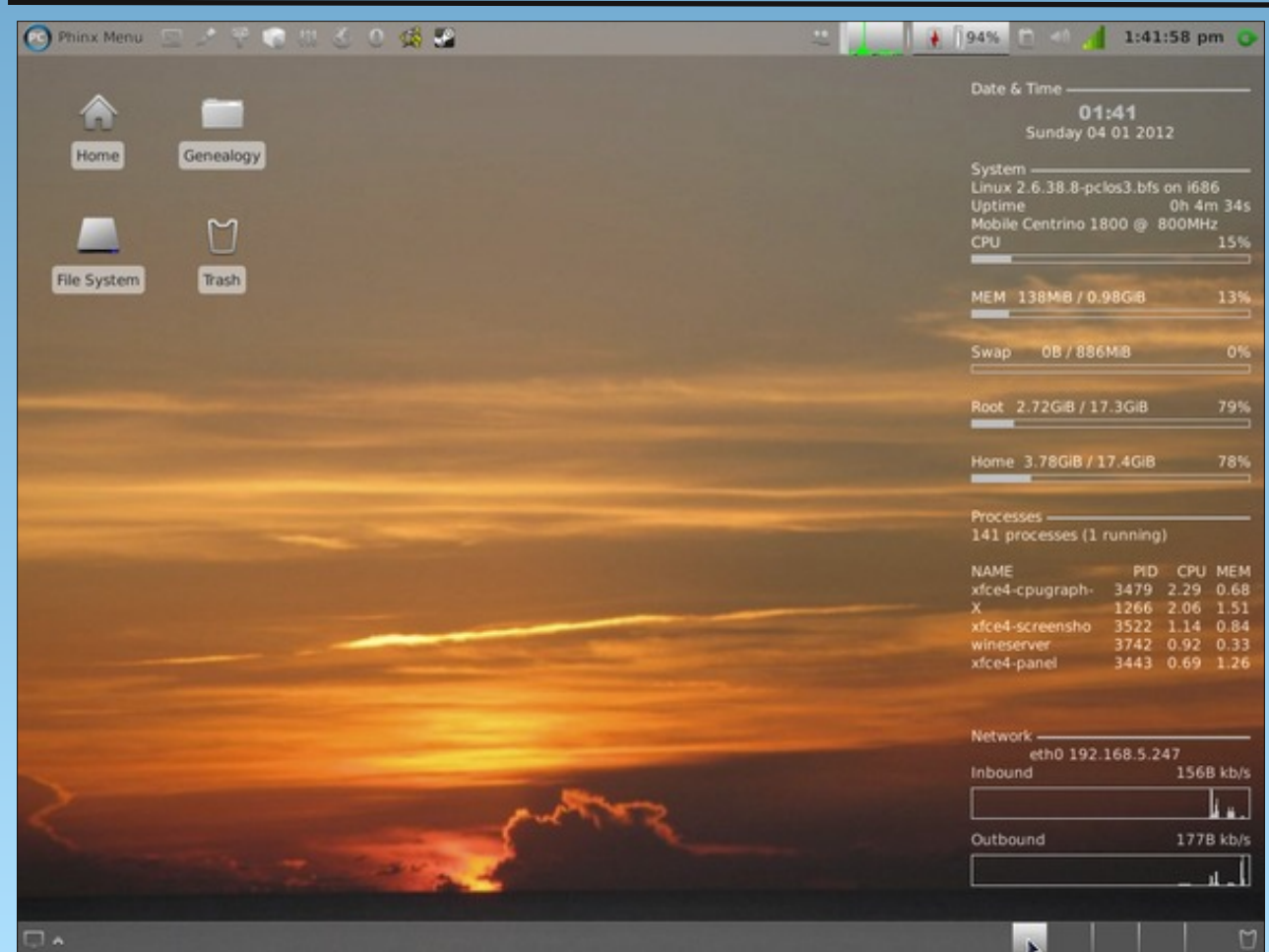


Imagine that you are creating an audio disc with a recording of Ravel's Bolero on it. The exceedingly soft passages at the beginning would be enhanced and made louder. The thundering crescendos at the end would be watered down in volume. You'd be left with a recording that would not display the extreme dynamic range of volume in the concert that Ravel originally intended. For me, that would be extremely disappointing.

It is my opinion that the program should be completely revamped. A working plugin manager should be used to handle the program's functions. That, or package it with dependencies on the backend binaries to be used, and include softlinks to any external binary executables needed. There's no need to reinvent the wheel. Just make one that rolls efficiently. Brasero's usability and functionality cannot hold a candle to GnomeBaker's.



## Screenshot Showcase



Posted by cstrike77, April 1, 2012, running Xfce.

**Does your computer run slow?**

**Are you tired of all the "Blue Screens of Death" computer crashes?**



**Are viruses, adware, malware & spyware slowing you down?**

**Get your PC back to good health TODAY!**

Get



Download your copy today! FREE!

# Mark's Quick Gimp Tip & Double Take

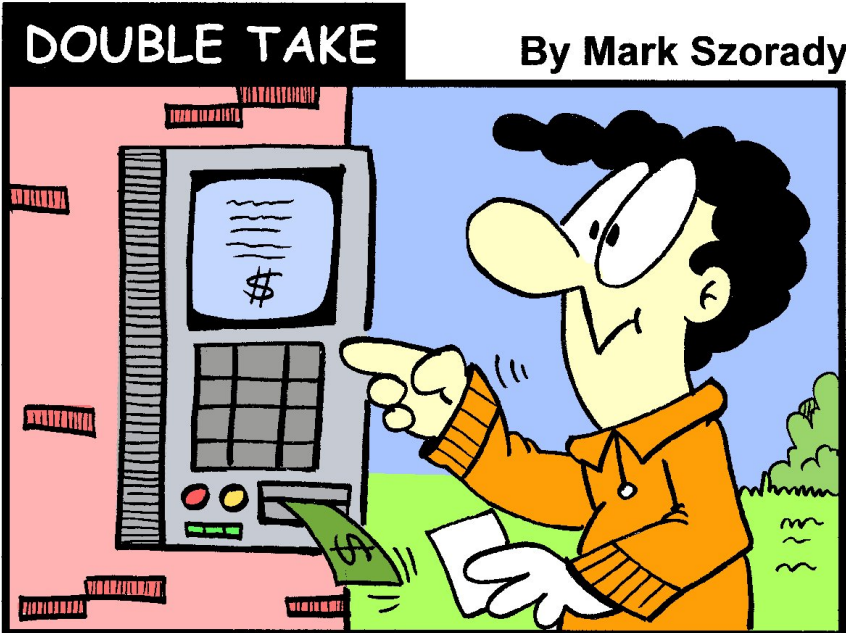
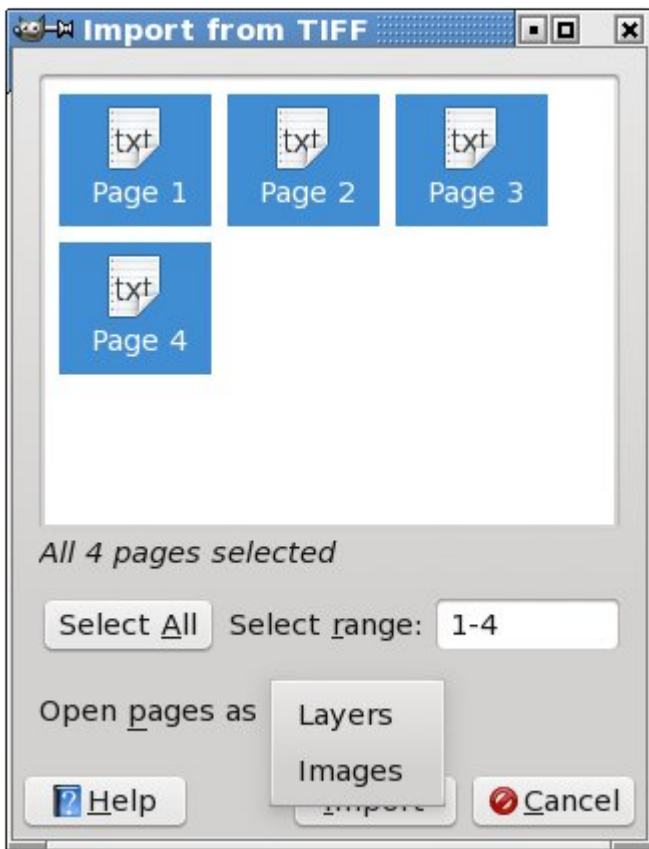
## Mark's Quick Gimp Tip

I distribute my cartoon features through [georgetoon.com](http://georgetoon.com). I also distribute the cartoons of Polly Keener. (To see some of Polly's cartoon work, visit [www.georgetoon.com/georgetoonfeatures](http://www.georgetoon.com/georgetoonfeatures).) Polly's husband Bob does the scanning and

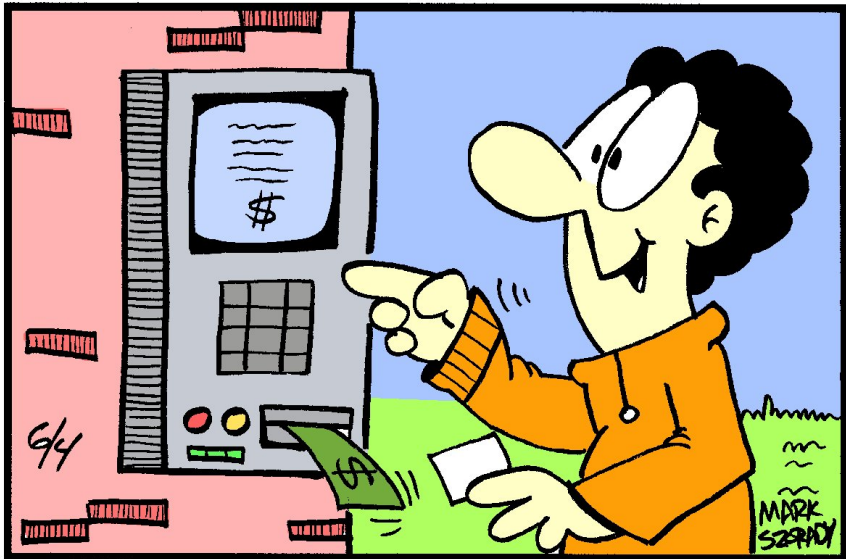


emailing of all the cartoons. He sends me a multipage tiff file. That is, it's a single tiff file with multiple cartoon images inside. **Gimp** can open this kind of tiff file quite easily. When first opening the file, **Gimp** instantly knows it's a multipage tiff file. **Gimp** then presents you with a dialog window with a couple of options. You can select all or just a few of the images. In addition, you can then open each of the images as individual files or as layers in a single file in **Gimp**. I always open the images as individual files. I check the art and do just a bit of editing, if needed (straightening, aligning, etc.) And **Gimp** does all this with equal ease. I re-pack as individual files in one folder and then zip it all up. Because, not everyone runs **Gimp**. And if non **gimp** users come across a multipage tiff file, they may not have the proper software to open it.

-Mark Szorady is a nationally syndicated cartoonist with [georgetoon.com](http://georgetoon.com). He blogs at [georgetoon.com/blog](http://georgetoon.com/blog). Email Mark at [georgetoon@gmail.com](mailto:georgetoon@gmail.com).



Find at Least Seven Differences Between Cartoons!



Answers on Page 32



# Forum Foibles: Featuring Fabulous Foibler Sproggy



Kori von Sproggy



Forum voted Sproggy most likely to have a long safe life

## SNAKE STEW

Dice vegetables and put in pot. Capture snake of your choice. Remove head, skin and organs. Dice meat and add to pot. Cover with water. Season to taste and bring to boil. Simmer for 5 to 10 minutes. Serve.

Boa or python can also be served as a raw appetizer.

Sproggy's entry for the Forum Foibles Cookbook



Sproggy designs a strange new phoenix



Sproggy as seen by Hootiegibbon  
"I SHOUT AS YOU IS GETTIN OLD"



Sproggy to the Forum



# Fix A NTFS Partition With fsck

by AndrzejL

I was trying to fix an NTFS partition on a USB disk for a Friend of mine. I don't have Microsoft Windows installed on any of my machines SO I couldn't use `chkdsk` command. No problem. I have a PCLinuxOS – one mean green heckuva machine.

I remembered that the Old-Polack was recommending

```
fsck -f /dev/sdxy
```

command to be run as root on unmounted partition when booting from LiveCD.

I won't bother booting into the LiveCD as it's not / or /home partition that I am trying to fix, I thought. Ok, so I unmounted the drive using the KDE Device Notifier and I ran the command:

```
fsck -f /dev/sdb1
```

The outcome was not what I had expected it to be...

```
fsck from util-linux-ng 2.18
```

```
fsck: fsck.ntfs: not found
```

```
fsck: Error 2 while executing fsck.ntfs for /dev/sdb1
```

As it turns out – I am missing a package... but which one? Synaptic package manager showed no entries whatsoever. [Rpmsearch](#) was not very helpful either... So I searched and searched and after a while asked [Cyril](#) for help. I was provided with almost instant solution.



Make sure you have these packages installed:

- A) `ntfs-3g`
- B) `ntfs-config`
- C) `ntfsprogs`
- D) `testdisk`

and then run these two commands as root:

```
ln -s /usr/bin/ntfsfix /usr/sbin/fsck.ntfs
```

```
ln -s /usr/bin/ntfsfix /usr/sbin/fsck.ntfs-3g
```

Now try re-running the command but skip the `-f` parameter:

```
[root@wishmasbell andrzejl]# fsck /dev/sdb1
```

```
fsck from util-linux-ng 2.18
```

```
Mounting volume... OK
```

```
Processing of $MFT and $MFTMirr completed successfully.
```

```
NTFS volume version is 3.1.
```

```
NTFS partition /dev/sdb1 was processed successfully.
```

```
[root@wishmasbell andrzejl]#
```

I was not missing any packages. All I was missing were two symlinks. The HDD was fixed as far as I can tell.

Thanks again [Cyril](#).



Want to keep up on the latest that's going on with PCLinuxOS?

Follow PCLinuxOS on Twitter!

<http://twitter.com/iluvpclinuxos>

## Reach Us On The Web

**PCLinuxOS Magazine Mailing List:**  
<http://groups.google.com/group/pclinuxos-magazine>

**PCLinuxOS Magazine Web Site:**  
<http://pclosmag.com/>

**PCLinuxOS Magazine Forums:**  
<http://www.pclinuxos.com/forum/index.php?board=34.0>

# Linux Financial Apps: Money Manager EX

by Meemaw

The next financial program we will look at is **Money Manager EX**. Their website is <http://www.codelathe.com/mmex/> and your introduction to the program says:

*“Money Manager Ex is a **free**, open-source, cross-platform, easy-to-use personal finance software. It primarily helps organize one’s finances and keeps track of where, when and how the money goes. It is also a great tool to get a bird’s eye view of your financial worth.”*

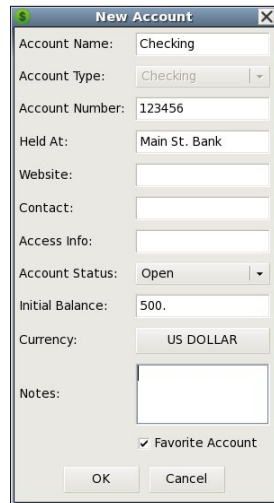
You will find a User Guide in 4 languages (English, Italian, French, Russian) at <http://moneymanagerex.svn.sourceforge.net/viewvc/moneymanagerex/trunk/mmex/doc/help/index.html>

The first time you start MMEx, you will be asked to create a new database or open an existing one. Since you have none, you will have to create one. Notice that you won’t get this window after the first time unless you check the box at bottom left.



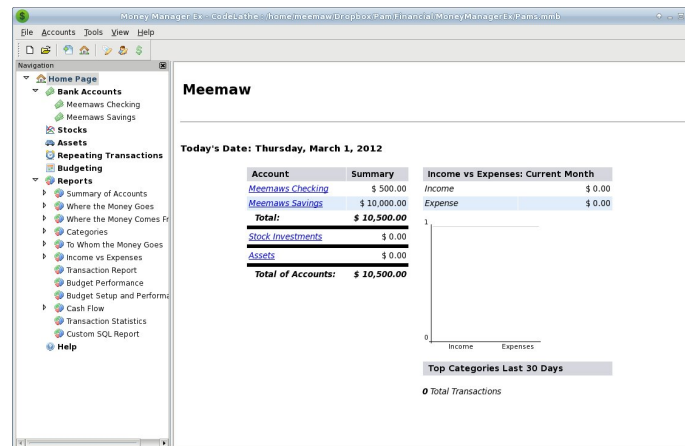
Clicking on Create a new database, you will see the main screen with a blank section on the right. In front of it, a Save dialog will open, asking you to name your database. Then, a New Database Wizard will open. You will see windows to set your currency and a user name. The user name can be different from your file name and is optional. The Add New

Account window will appear asking what the name of the account is (they suggest the name of the bank) and what type of account it is (Checking/Savings, Investment or Term). Then an account window will appear to let you put in more details about the account you are creating.

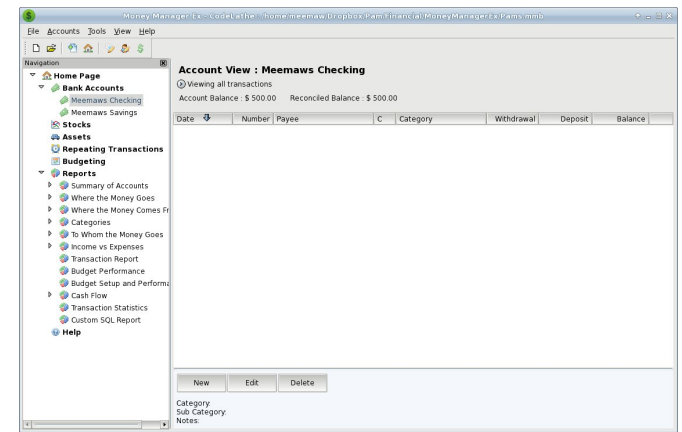


You can edit the name of the account, put in the account number, contact information, website and even notes about the account. The only thing that is required here is the Initial Balance, but if you forget it, you can right click the account in the tree at the left and choose Edit Account. You can create your main accounts now, and can always go back and add other accounts later. I added checking and savings accounts first, and I can go back at any time and add an investment account.

Now the main screen looks like this:



Now we should start entering transactions. In the tree on the left, click on the account you want to use. You will get the following screen:



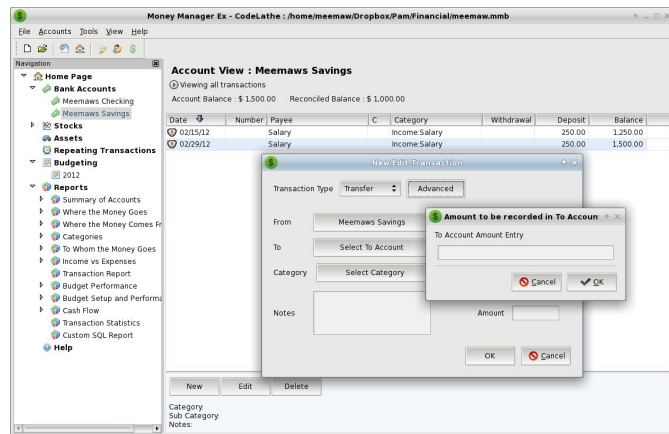
At the bottom of the window you will see three buttons: New, Edit and Delete. Click on New to add a new transaction. You will get the following window:



You need to choose the type of transaction: Withdrawal, Deposit or Transfer. Most of the time you will use Withdrawal and Deposit. To enter a payment (withdrawal) you will need to put in the check Number, Payee, Date, Category and Amount.

You will have to add your own Payees, but you will have a standard list of Categories to use. You can always add more categories and payees with the Organize Payees and Organize Categories dialogs buttons in the toolbar.

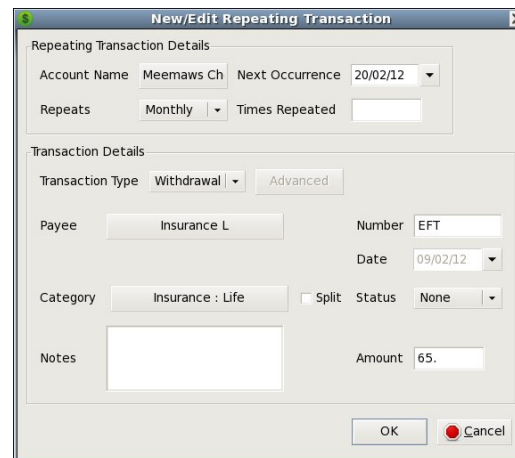
If you need to do a Transfer, you will need to be in the account **from** which you are transferring money. Change the transaction type to Transfer and the Advanced button will show up. Click on it and a pair of different transactions windows will show. In the first, you will need to designate how much you are transferring, then click OK. Then the other window will need to be completed with the account **to** which the money is going, along with the date, category and amount.



As you add transactions, your payee list will grow, since you add every new payee yourself.

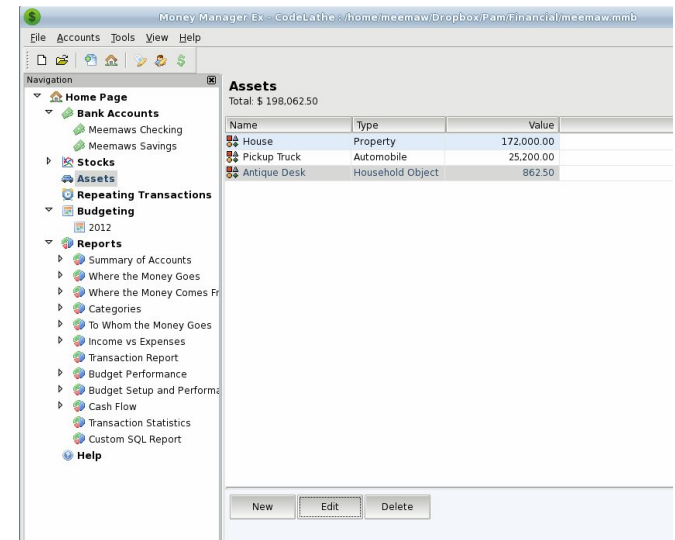
This program has a separate section for recurring transactions, rather than making that section obscure like in a couple of programs we've seen. From the tree at the left of your window, click on **Repeating Transactions**, and you'll get another window at right where you have Add, Edit, Delete, Enter and Skip buttons at the bottom. Add, Edit and Delete are the same as for the transaction screen. When you add a transaction, you will get the add screen and fill in the same information as for a

regular transaction, with the addition of the frequency of the transaction and which account it is to be used. You also have the option to have the program add this to your designated account automatically. If you don't do that, the Enter and Skip buttons in the main window make it possible for you to place the transaction into your checkbook when you want them there. You can also skip the next occurrence if required. When you go back to the main window, you will see the payee, account, category and amount of the transaction, along with the frequency of the transaction plus how long it is until the next occurrence.



After you have your transactions entered, you can look at reports. There are several reports already set up in the program, so you may find the one you need without trying to configure one yourself. Most of the pre-configured reports have versions for different time frames: this month, last month, last 30 days, this year and last year. You can do a report for a specific category by using the transaction report. When you click it, you will get a window which asks you to specify the account you want to use, the category and/or payee, and the time frame desired. You will then get a list specific to those items, so if you want to know how much you paid to your landlord for rent last year, you can narrow your transaction list to that specific information.

MoneyManagerEX also allows you to keep track of not only financial assets, like bank accounts and stocks, but it also has a section where you can list your property assets, like cars and houses and personal belongings. This may be a good place to make a list of that coin collection or gun collection or your valuable pieces of jewelry. Your Add window will ask for the following: Name of Item, Date of Purchase and Asset Type (this is a dropdown containing Property, Automobile, Household Object, Art, Jewelry, Cash or Other). In addition, you will have to insert the Value, Change in Value (you should designate whether each item appreciates, depreciates or doesn't change) and the percent of change per year. You can also add notes to your entry. Clicking OK takes you back to the summary window where your item is listed. If you have had it for a while, the appreciated or depreciated value is already there.

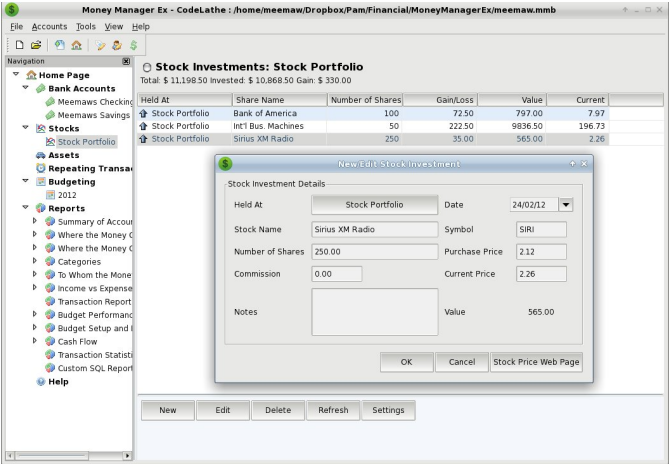


Just as with one of our earlier programs, you can keep track of your stock portfolio with this program. Right-clicking on **Stocks** in the tree at left, choose **Add Account**. Instead of a checking or savings, this should be an investment account. You will again get the New Account window where you can add other information if you wish. Click on the new account





you just created. I named mine Stock Portfolio. In the window, you will get the buttons New, Edit, Delete, Refresh and Settings. The **Settings** button is used to designate the site you wish to use for your prices. The program's default setting is [finance.yahoo.com](http://finance.yahoo.com) and asks you to designate when the market opens and closes and how often it should refresh your prices. Clicking **New** gives you the smaller window shown, where you can add a new stock acquisition. You need to enter the name of the stock, plus the symbol used, the date you bought the stock, the number of shares, and what you paid. You will see a handy button which pulls up the stock's web page in the stock site you use. After you are finished you can go back and **Edit** any of them if you've made a mistake.



If you sell all of a stock, you can delete it. Using the **Refresh** button will give you your current values.

This program works pretty well. I haven't found any idiosyncrasies that irritate me like I did in earlier programs, and everything displays well.



# Screenshot Showcase



Posted by parnote, April 25, 2012, running Xfce.



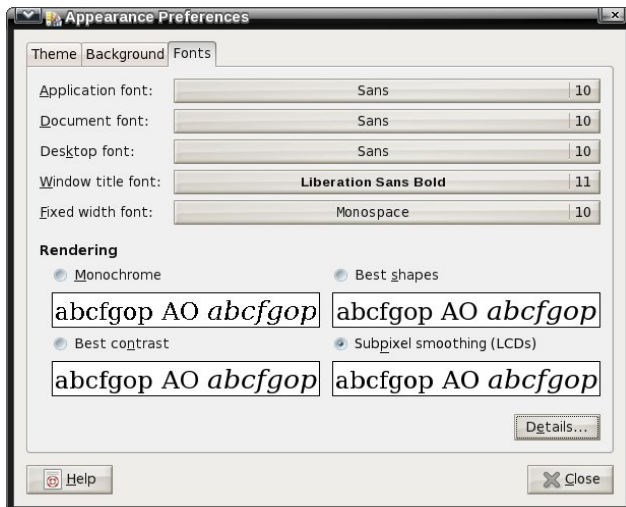
# Gnome 2.32: Tips, Tricks & Tweaks

by Paul Arnote (parnote)

Just as with any major desktop environment available for Linux, there will always be tasks and settings that are not the easiest to accomplish or change – or even find. This couldn't be any more true than it is with Gnome, since the Gnome developers have this mindset that obscurity is a good thing. Never fear – they have taken that obscurity to a whole new level with Gnome 3.x.

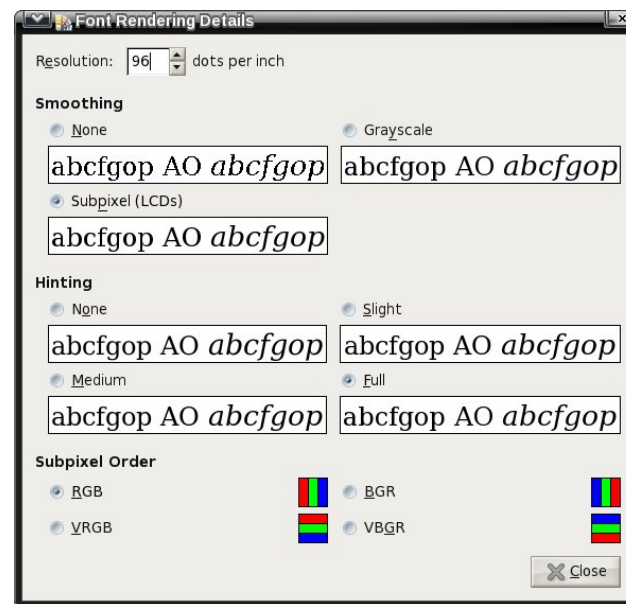
**Some** obscurity is a good thing, since you don't want all these settings and tasks to get in the way of the user actually being able to use their computer. But taken too far (as many, including [Linus Torvalds](#), claim the Gnome developers have done), excessive obscurity prevents the end user from performing many critical and necessary tasks. I hope that these tips, tricks and tweaks help lift the veil of obscurity from Gnome 2.32.

## De-skew Your Fonts



If your fonts are appearing rather skewed, it's actually quite easy to fix. First, right click your mouse on an empty spot of your desktop window, and select **Change Desktop Background** from the context menu that appears.

Select the **Fonts** tab, then select the **Details...** button.



At the top of this new window, set the resolution. Typically, a resolution of 96 dpi works for most people. If you select a lower resolution – say, 72 dpi – then your text will appear larger. If you select a higher resolution – say 120 dpi – your text will appear smaller. Adjust this value until your text appears as you like. Don't worry if you mess things up. You can always return this value back to 96 dpi (provided you can still read the screen!).

While we're talking about fonts, and while we're already in this window, you can also change "Hinting" from "Full" to "Slight" to gain a slight speed enhancement. I would not recommend turning hinting off, since doing so may make your fonts look fuzzy.

## Speed Enhancement: Icons

There are many that criticize Gnome as being a heavy, resource-hog desktop environment. If you are trying to run Gnome on an older and/or slower computer, you can help improve performance by changing your icon theme.

Avoid using SVG icon themes. SVG icons are re-rendered every time the icons are redrawn or resized. Instead, use a PNG icon theme. If you find a SVG icon theme that you just can't live without, convert the SVG icons to 128 x 128 PNG icons.

## Speed Enhancement: Nautilus

There is no denying that Nautilus is an excellent and powerful file manager. It's the favorite of many Linux users, in part due to how configurable and extensible it is. However, on slower and older computers, Nautilus can slow to a crawl. All of those extra "bells and whistles" can cause a performance hit.

Luckily, we can turn off – or seriously trim back – most of those bells and whistles, and in the process, make Nautilus much more responsive on slower and older computers.

From Nautilus' menu bar, choose **Edit > Preferences**.

### Speed Enhancement: Startup Applications

Select System > Preferences > Startup Applications, and the window below will be displayed.



There are quite a few applications that are started by default in Gnome 2.32. However, there may be applications that aren't actually needed, and that many people don't use. Remove the check mark next to those applications that you don't need or want to run when your computer starts up. Not only will it help your Gnome session start faster, it will also consume fewer precious resources on an older or slower computer, since those applications won't be running in the background.

Also, so you can get to a working desktop faster, you can select the "Options" tab and make sure that the option to restart the applications from the previous Gnome session are NOT automatically started the next time you start up your computer.

### Speed Enhancement: Compiz

Basically, turn it off. All of that eye candy comes with a high price – a price that is exacted on your computer's resources. This includes processor usage and memory usage. For some users, it boils



Click on the **Preview** tab. Once there, you can make some changes that will help improve the responsiveness of Nautilus.

First, under **Text Files**, set "Show text in icons" to **Never**. This will prevent Nautilus from scanning the text to show a preview of the text file when you hover your mouse over the icon.

Second, under **Other Previewable Files**, set the "Only for files smaller than" setting to something less than 100 MB, which is the default in PCLinuxOS Zen. I recommend setting this to either 10 MB or 5 MB. Files larger than the limit will no longer display a thumbnail depiction of the file, and will revert to displaying a generic icon associated with that particular file type. If you find that these reduced

settings still result in sluggish performance from Nautilus, you can set the values to even lower file sizes. You can also set "Show thumbnails" to **Never**. This will cause Nautilus to never show thumbnail representations of previewable file types.

Third, under **Sound Files**, you can set "Preview sound files" to **Never**. This prevents Nautilus from playing back sound files when you hover your mouse over the sound file icon.

Fourth, under **Folders**, you can change "Count number of items" to **Never**. This prevents Nautilus from displaying the number of files in the current folder in its status bar.

### Speed Enhancement: Metacity

Gnome 2.32 uses the Metacity window manager. You can lessen the impact of Metacity themes on the resources of an older or slower computer by selecting Metacity themes that use simple colors. Using themes that use images will slow down rendering, causing a potential performance issue with older or slower computers.

While you're at it, you can also turn off Metacity animations. From a terminal session, enter the following (all on one line):

```
gconftool-2 --type bool --set  
/apps/metacity/general/reduced_resources  
true
```

### Speed Enhancement: Gtk+ Themes & Wallpaper

Use Gtk+ themes that allow the user to change colors. They are the simplest of all Gtk+ themes, and thus consume the least amount of resources. For wallpaper, use only wallpaper that uses "web safe" colors, or solid colors. They are the ones that consume the least amount of computer resources when they are rendered.



down to whether to have a functional computer, or one with flash and glitz. Personally, I choose functional every time, over flash and glitz. The latter is fine – if you have a computer that can handle it, without having a noticeable effect on functionality.

### Speed Enhancement: Replace Nautilus

While the added functionality of Nautilus is nice to have, it does come at a price. Replace Nautilus with PCManFM. You will save about 100 MB of memory overhead by replacing Nautilus with PCManFM. The choice of PCManFM is not only because it is a lighter file manager, but also because once you get rid of Nautilus, you will need something else to manage the desktop – otherwise you won't have any way of managing the desktop. PCManFM has this capability.

You don't have to remove Nautilus from your system. Just remove it as the default file manager and desktop handler. First, enter the following in a terminal session (all on one line):

```
gconftool-2 --type bool --set
/apps/nautilus/preferences/show_desktop
false
```

Don't panic. The above setting will probably mess your desktop up (removing icons and wallpaper), since you just removed Nautilus's ability to manage the desktop.

Second, install PCManFM from Synaptic. Once installed, launch it, and select Edit > Preferences from the PCManFM.

Click on the "Desktop" tab, then check the boxes next to "Manage the desktop and show file icons," "Show menus provided by WM when desktop is clicked" and "Wallpaper." Select your wallpaper by clicking on the far right side of the "button," and select the "Mode" to use when displaying your

wallpaper. Select the "OK" button to save your settings and exit the dialog box.



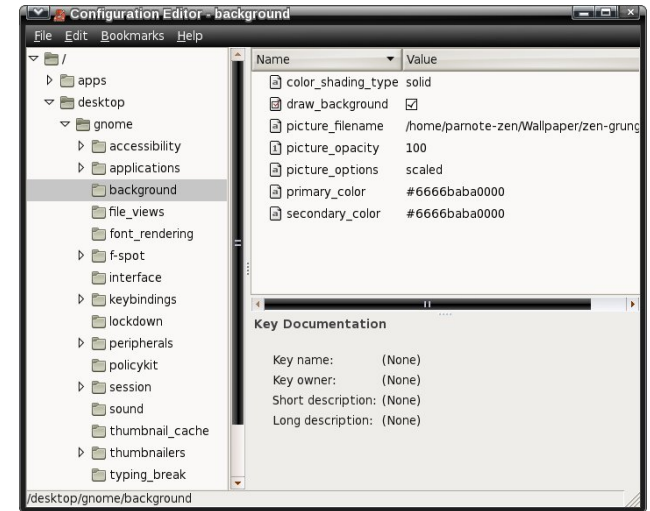
To make things easier, create a launcher on your panel for PCManFM. Click on it whenever you have work to do on files or you need a file manager.

### Change Default Background Color

The default background color in Gnome is green. This can be problematic if you are using a PNG file with some transparent areas. Fortunately, this is easy to change.

First, launch the gconf-editor from a terminal session, by typing `gconf-editor &` at the command line. This will launch the GUI version of gconf-editor. Under PCLinuxOS, you do not have to be the root user to use this utility.

Travel through the tree in the left pane to `desktop > gnome > background`. Once you get there, you will notice an appearance of the right pane that is a lot like in the image below.



Note that the color designation (primary\_color and secondary\_color) is a bit different than what you use in Gimp or for the background color designation in a web page. The first thing you will (should?) notice is that the RGB color designation is twice as long as you would normally expect. That is because the typical color designation repeats for each color. So, the #6666baba0000 green color designation translates into #66ba00 in Gimp or HTML color code.

Say you wanted to change the background color from the default green to orange. Opening up Gimp, we see that the color designation for orange is #ffa000, in hexadecimal. In gconf-editor, it becomes #ffffaaa0000. Notice how we double entered the typical RGB values. Thus, the ff designation for the red color channel in Gimp becomes ffff in gconf-editor. Similarly, the aa designation for the green color channel in Gimp becomes the aaaa. The 00 designation for the blue color channel in Gimp becomes 0000.

Clicking on any of the values in the right pane will display a brief explanation of the expected values in the lower right portion of the screen. Feel free to experiment with the values. If you do, I recommend

writing down the default values – just in case you mess things up and want to return things to their default values.

There are some transparent PNG wallpaper files in the default installation of PCLinuxOS Zen. Changing the background colors, as well as the `color_shading_type`, will alter how the background appears when you use them.

Of course, you can also control most of this by right clicking on an empty spot on your Gnome desktop, and selecting Change Desktop Background from the context menu that appears.

### Clean Up Your Desktop

There are many users who don't like to have a lot of icons on their desktop. It reminds them too much of Windows, where **every** application you install wants to put its icon on your desktop.

Fortunately, with Gnome's `gconf-editor`, it's easy to clean it up in a manner that is easily reversible at any time. From a terminal session, type `gconf-editor` & at the command line. When the `gconf-editor` window appears, go to `apps > nautilus > desktop` in the left pane. In the right pane, uncheck the icons you wish to clear from your desktop. They should disappear immediately.

Similarly, if you are a user who actually likes a gazillion icons on your desktop, you can add any that are listed by making sure the icons are checked.

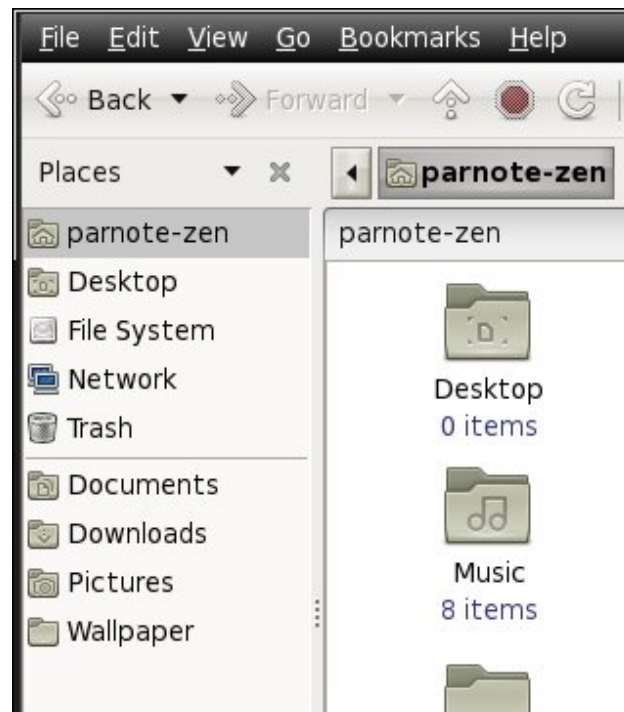
### Gnome Power Manager

If you are running Gnome 2.32 on a notebook computer, you will want to install the Gnome Power Manager, since it's not installed by default. With Gnome Power Manager, you can keep close tabs on the state of your battery. Gnome Power Manager will also control when you receive warning messages

about a low battery and a critically low battery. It will also automatically take the assigned action (power down, suspend or hibernate) when your battery reaches the defined low level.

### New Places – The Easy Way

One of the default menus in the standard Gnome menu is the “Places” menu. When browsing around, looking for ideas for the Gnome desktop article series, I came across multiple users complaining about how “difficult” it was to add new folders to the “Places” menu.



It's actually much easier than these users were making it out to be. To add items to your “Places” menu, simply click and drag a folder from the right pane of Nautilus to the bottom left pane in Nautilus. Voila! There it is. You can organize them by dragging them to their new position within the list.

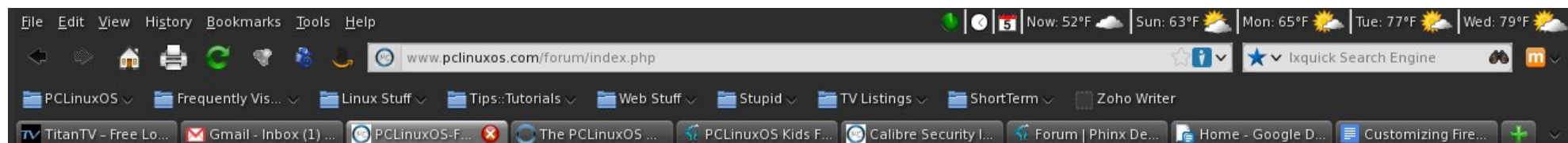
### Summary

I'm sure there are many more tips, tricks and tweaks. I've tried to include the ones I thought would be the most useful to the most number of people. Particularly, the speed enhancement tips, when applied, make Gnome as nimble and quick as the lighter Xfce desktop. Gnome is a very robust desktop environment, and it has a lot of fans, despite the obscurity built into it by the Gnome developers.



An advertisement for PCLinuxOS. It features a portrait of Albert Einstein on the left, with his hand to his chin in a thoughtful pose. To the right of the portrait is the PCLinuxOS logo, which includes the text 'PCLinuxOS' in a large, stylized font and 'Radically Simple' in a smaller font below it. Below the portrait and logo, there is a list of slogans: 'It's easier than E=mc2', 'It's elemental', 'It's light years ahead', 'It's a wise choice', 'It's Radically Simple', and 'It's ...'. The background is dark with some faint, glowing elements.

# Customizing Firefox Web Browser

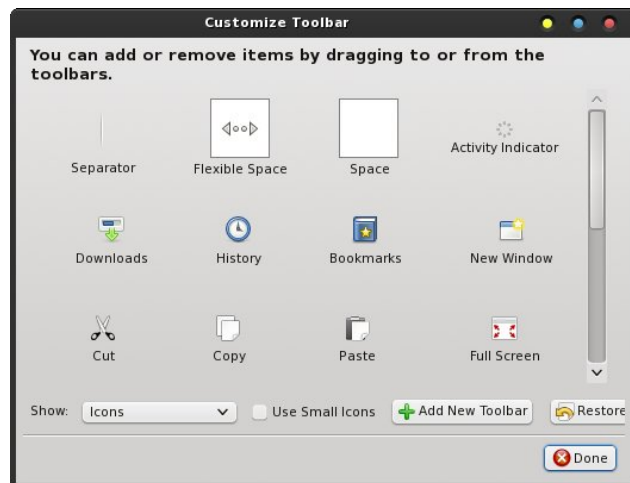


by Chuck Rice (Ramchu)

Here we will explore some methods to customize the Firefox Web Browser.

Open Firefox.

Let's start with the Toolbars. Don't like the location of the buttons (ie: forward, back, home, refresh, etc.)? Just go to View and click on it, go to Toolbars and slide across and down to Customize and left click on it (Customize). If the window that pops up is covering some of the buttons, just left click at the top of that window and drag it to a location that you are comfortable with.



Now you can left click and hold then drag and drop the buttons that you wish to move to your desired

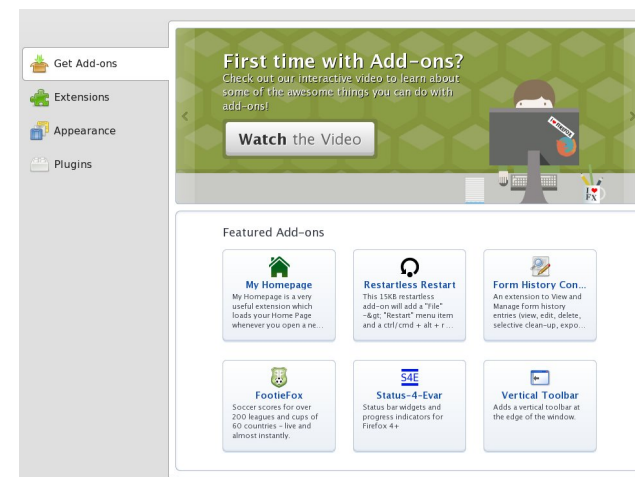
location in line with the Address bar. In the Customize window that popped up, let's say that you want to add a printer button. Left click on the printer icon in that window and drag and drop it along side the other buttons that you have moved. When you are satisfied, just close the customize window and you are done.

Don't like Tabs on top? Just click on View > Toolbars > and remove the tick beside 'Tabs on Top.'

Don't like the Bookmarks Toolbar below the Address Bar? Go back to View and go to Toolbars, slide your pointer across and down to Bookmarks Toolbar and left click to remove the tick and instantly the Bookmarks Toolbar is gone. Don't worry, it is just as easily restored by adding the tick back.

If you would like to add a Bookmark to the Bookmark Toolbar, just go to the site that you would like to Bookmark, and at the left end of the Address Bar, left click on the Icon and drag and drop it onto the Bookmarks toolbar. If for some reason you wish to remove the Bookmark from the Bookmarks toolbar, then just right click on it and click delete.

Is the Toolbar area at the top of Firefox dull/drab or just not to your liking? Just click on Tools > Add-Ons > Get Add-ons and look for Personas. When you find a Persona that is to your liking, just add it to Firefox. If you like, there is a tutorial on the Mozilla website that will tell you how to create your own Persona.



There are also Extensions that you can add to Firefox for security, advertisement blocking, or video downloading from sites like YouTube. Again, open Firefox and go to tools > Add-ons > Get Add-ons. Type in the search box at the upper right the type of add on that you want to add to Firefox. I use No-Script, AdBlock Plus, Flash and Video Downloader.

Next, let's say that you want to change your homepage. At the top of Firefox, click on Edit, then click on Preferences. In the pop up window, click on the General tab at the top then look for Home Page and you can change it there.

In the Preferences window, you can also change where Firefox saves your downloaded files from the internet. The default setting saves files to the





Downloads folder but you can click on the browse button and choose a different location.

When clicking on the Tabs Icon at the top, it will open another page and allow you to set how Firefox handles Tabs in your Browser.

The Preferences window has several other tabs.

The Content Tab:

By clicking on the Content Icon, you can set whether or not to block pop up windows and create an exceptions list. You can also change how Firefox handles images, enable and/or disable JavaScript in Firefox, and finally you can also select your desired font for Firefox.

The Applications Tab:

By clicking on the Applications Tab, you are able to select which application is started for a certain media. For example, maybe you are wanting to view a Windows Media Video and you would prefer to use Clementine, instead of the Windows Media player plugin. This is where it is set. Just click on Windows

Media Video and then click on the drop down at the right and select how it is handled.

The Privacy Tab:

Under the Privacy tab you can have Firefox tell Web Sites that you do not want to be tracked. This is also the place where you tell Firefox how to handle your browsing history, and also the place to remove your history and/or cookies.

The Security Tab:

Clicking on the Security tab allows you to be: warned when sites try to install add-ons, block reported attack sites, block reported web forgeries, and it is also the place where Firefox handles Passwords.

The Sync Tab:

This is where you set up Firefox Sync to be able to access your History, Bookmarks, Passwords and open tabs across all of your devices.

The Advanced Tab:

This is where you can decide how Firefox connects to the Internet, the encryption that Firefox uses and other useful features.

## Summary

These are the very reasons that Firefox is so immensely popular among web users. Its capabilities can easily be extended and tailored, its interface can be customized, and it goes a long way to insuring that our web experience is safe, yet unique for each user. In a lot of ways, Firefox can be whatever you want it to be.



Support PCLinuxOS! Get Your Official

**PCLinuxOS**  
Merchandise Today!

**PCLinuxOS**

**International Community  
PCLinuxOS Sites**



# Screenshot Showcase



Posted by Crow, April 11, 2012, running LXDE.



# Command Your Disks With dd

by Peter Kelly (critter)

## Introduction

The dd command is one of the oldest Unix commands. The name means data duplicator but is sometimes referred to as data destroyer due to its practice of doing exactly what it is told, which is not necessarily what the user intended. The dd command is very efficient but care must be taken when using it, especially when issuing the command with superuser privileges.

The command takes a stream of data as its input, optionally applies certain rules and conversions during its passage and outputs it to a nominated destination file/device. As long as everything is going fine dd performs its task quietly and efficiently outputting just a brief summary upon completion of the task.

Three buffers are used to hold the data on its way through the command, a read or input buffer, a conversion buffer used when a conversion is specified and an output or write buffer. This configuration allows for considerable flexibility in use. If the if option is not specified then STDIN is used, this can be the output from another command or even the keyboard. If of is not specified then STDOUT is used which is usually the screen but it may also be piped to another command. If all this seems a bit mystical then the examples that follow later should make this a little clearer.

## Basic usage

Like so many Unix/Linux commands dd is designed to process data flowing through it in a continuous stream however the format of its options are

somewhat unusual and take the form **{option}={value}**.

The command

### **dd if=myfile of=outputfile**

would simply make a copy of the file myfile named outputfile. The option 'if' is used to define the input data and the option 'of' to define the output. Other options include 'bs' to define the size of blocks of data to operate on and 'count' to tell the command how many blocks of data to process. If these options are omitted then the default block size of 512 bytes is used and data is processed either continuously or until either the end of the input data is reached or an error occurs. There are many more options, as we shall see, but these are the most common ones.

The danger in using this command carelessly is this: if I wanted to make a copy of a disk to a new, empty disk then I could use a command similar to the following

### **dd if=/dev/sda of=/dev/sdb bs=4096**

However, if I were to mix up the drive names, then instead of copying the existing data to the empty drive I would copy the empty sectors of the new drive to the older one, overwriting the data and finish with two empty drives. Caution is paramount and you may want to do a test run, omitting the output destination similar to the following example using a file named testfile that I created for the example. With no of= in the command the contents of the file are echoed to the screen.

**dd if=testfile  
this is a file to test the output from the dd  
command**

**0+1 records in  
0+1 records out  
55 bytes (55 B) copied, 0.000234282 s, 235 kB/s**

If the input file is large, say a hard drive or partition, then you can limit the test output by using a smaller block size and a count of 1 block. Proceed only when you are confident.

## Applications

So what can we use it for? The dd command is extremely versatile and is probably best demonstrated with some examples. The following demonstrate some of the power of the command.

Here is a simple one to start with. Create a text file. Simply pass the name of the file to create and then start typing. To close the file, type Control+D and you're done.

**user@home# dd of=testfile  
This file was created to demonstrate the use of  
the dd command.  
You may enter as much text as you like or just  
make quick note.  
0+2 records in  
0+1 records out  
128 bytes (128 B) copied, 119.878 s, 0.0 kB/s  
user@home cat testfile  
This file was created to demonstrate the use of  
the dd command.  
You may enter as much text as you like or just  
make quick note.**

Here the block size (bs) was not specified, so the default size of 512 bytes was used. The summary shows how many full and partial records were processed. The input records are lines and there are



2 of them, each partial (less than the 512 byte block size). Only one record was written, and this was also less than 512 bytes.

To make an exact copy of a hard drive use the command like this:

```
dd if=/dev/sda of=/dev/sdb bs=4096 conv=notrunc,noerror
```

Here we use a block size of 4KB but experimentation with this value may provide better results, depending on your system. Two conversion options have been added. Without the first, notrunc, target drive would be truncated to the size of the input drive, which is usually undesirable. The noerror option tells dd to carry on if a read error is encountered.

Before an old drive is discarded it is a good idea to 'wipe' it clean and dd is ideal for this.

```
dd if=/dev/zero of=/dev/sdb1 bs=1M  
dd if=/dev/urandom of=/dev/sdb1
```

The first method fills the drive with zeroes, overwriting any data. The second method fills it with random data but is slower. Most modern systems should be able to handle a block size of 1MB.

If we use the zeroing method then it is a simple matter to check that no readable data remains.

```
dd if=/dev/sdb1
```

As no output file is specified it goes to STDOUT, the screen. This works in a similar way to the cat command, but is more efficient.

If you want make a backup of a cd to an image file on your hard drive use

```
dd if=/dev/sr0 of=/home/user/mycd.iso bs=2048 conv=sync,notrunc
```

Change /dev/sr0 to whatever your cd drive is seen as. CDs have a block size of 2048 bytes so this is the size used here. The image can be mounted with a command such as

```
mount -o loop /home/user/mycd.iso /mnt/mycd
```

When you can't remember how to get a command to do something and the help is minimal or is really heavy going, you can sometimes get a hint by looking for human-readable text embedded in the file. The strings command can be utilised here.

```
user@home# dd if=/bin/ls | strings | grep -a reverse  
219+1 records in  
219+1 records out  
112408 bytes (112 kB) copied, 0.00361762 s, 31.1 MB/s  
-r, --reverse reverse order while sorting  
Reverse
```

Need to increase your swap space? Make a swapfile with dd:

```
dd if=/dev/zero of=/swapspace bs=4k  
count=250000  
mkswap /swapspace  
swapon /swapspace
```

A RAM drive can help speed up operations that require a lot of disk access. You can easily create one or several with dd.

```
dd if=/dev/zero of=/dev/ram7 bs=1k count=16384  
mke2fs -m0 /dev/ram7 4096
```

Test it:

```
hdparm -t /dev/ram7  
/dev/ram7:  
Timing buffered disk reads: 16 MB in 0.02  
seconds = 913.92 MB/sec
```

Mount it:

```
mkdir /mnt/mem  
mount /dev/ram7 /mnt/mem
```

If you want to duplicate a hard drive partition to use as a backup (in case of disaster), then we need to add a few more options

```
dd if=/dev/sda2 of=/dev/sdb2 bs=4096  
conv=notrunc,noerror
```

Here, the input is the partition we want to clone, the output is where we want it to go and must obviously be at least as big as the input partition. **Do not mix these two up.** Next we specify a block size of 4096, which is 8 sectors of 512 bytes and is a good optimum size for this operation. Finally, we specify a couple of conversion options – notrunc and noerror. It is usually a good idea to run the fsck command on the new partition before you use it.

Convert a text file to uppercase:

```
dd if=filename of=new_filename conv=ucase (or  
lcase)
```

Benchmark a drive:

```
dd if=/dev/zero bs=1024 count=1000000  
of=/home/me/1Gb.file (write)  
dd if=/home/me/1Gb.file bs=64k | dd of=/dev/null  
(read)
```

Feel free to play around with bs and file size.

### Watching the progress

Many of the operations that dd is used for, such as cloning a partition, are quite lengthy and dd is very secretive, showing no output. How do you know then that the process is actually running and not just locked up or stopped? There are a couple of ways to approach this.

The first way is to pass the process the USR1 signal. Usually, we pass a signal to a process to terminate or kill it, but the dd command was written to do something special when it receives this signal. It temporarily stops processing data and outputs some statistics to Standard Error, usually the screen, and then resumes its task. To make use of this, we have to catch the process identification number (PID) and run dd in the background. If we then send this signal to the PID, we shall see where dd is up to. This is easier than it sounds. Here, I am creating a 1 GB file of random data. The PID is to be found in the \$! shell variable.

```
user@home $ dd if=/dev/urandom of=testfile
bs=4k count=256000 & pid=$!
[2] 3106
[1] Exit 1 dd if=/dev/urandom of=testfile bs=4k
count=256000 pid=$!
```

```
user@home $ kill -s USR1 $pid
28057+0 records in
28056+0 records out
114917376 bytes (115 MB) copied, 12.4044 s, 9.3
MB/s
```

```
user@home $ kill -s USR1 $pid
72844+0 records in
72843+0 records out
298364928 bytes (298 MB) copied, 32.2774 s, 9.2
MB/s
```

```
user@home $ kill -s USR1 $pid
155666+0 records in
155665+0 records out
637603840 bytes (638 MB) copied, 69.0612 s, 9.2
MB/s
```

```
user@home $
256000+0 records in
256000+0 records out
1048576000 bytes (1.0 GB) copied, 113.598 s, 9.2
MB/s
```

Another way to achieve this, which I think is a more elegant solution, is to use the pv command, which you will have to install from the repositories. The input file is piped into the dd command using the pv command. The options I have passed to pv are:

- p show a progress bar
- e show the estimated time to completion
- s 1000m tells pv the size of the file I am transferring (This is used by -e).

```
pv -pe -s 1000m /dev/urandom | dd of=testfile
bs=4k count=256000
```

Partial output -

```
[=====> ] 31% ETA 0:01:19
```

Final Output -

```
256000+0 records in
256000+0 records out
1048576000 bytes (1.0 GB) copied, 115.727 s, 9.1
MB/s
[=====>] 100%
```

### Summary

The dd command is a very useful tool to have around, and it is worth the effort to learn at least the basics. It should however be used with a little caution when transferring valuable data. There are times when a simple copy (cp) will do the job, and other times when a command such as rsync would be more appropriate. However, the usefulness of dd cannot be denied. Unrestricted by file structures or block sizes, for raw data transfer, dd is limited only by your imagination.

## Visit Us On IRC

- Launch your favorite IRC Chat Client software (xchat, pidgin, kopete, etc.)
- Go to freenode.net
- Type "/join #pclinuxos-mag" (without the quotes)

# Why PCLinuxOS Shuns sudo Use

by Old-Polack

There has been some confusion about sudo support on PCLinuxOS. Hopefully, this will clarify the subject.

## In The Manner Of The Buntus = ITMOTB

Sudo is just another Linux tool, but one that when abused, can drastically impair the security of one's system. All the major Linux releases, except the buntus and their clones, agree that when used ITMOTB, sudo is a major security risk, so none of them, by default, implement it ITMOTB. Our policy has also always been to not support the use of sudo ITMOTB, and we have never varied on that. When we say we discourage the use of sudo, ITMOTB, we say it with extreme prejudice.

We have always supported the proper use of sudo as a limiting resource, when root privileges are needed for a specific repeatable purpose, such as when needed for the proper functioning of an application, within a script, or when a specific user on a multi user system is assigned limited administrative duties, but is not allowed access to the root password or full root privileges. This is the purpose for which sudo was intended.

When implementing sudo, care should be taken to limit a user's entry in /etc/sudoers to the absolute minimum of specific commands needed to perform the task at hand.

Sudo, when used ITMOTB, gives blanket, unlimited root privileges to a normal user, who can then literally run as root using his own normal user's password; there being no specific root password set, the normal user's password effectively becomes the

root password, thereby removing an entire layer of Linux system security. (the separation of all normal users from the root user) This is the abuse of sudo we speak of. We feel that it is totally irresponsible, and it is that which we refuse to support.



If someone comes here, refuses to learn to run PCLinuxOS as it was designed to be used, with a proper root password, su and su - commands to grant root permissions, while demanding instructions to run their system ITMOTB, we respectfully suggest they install a buntu version instead, or one of their clones. We will not officially condone this deliberate breach of security protocols, and will not tolerate having instructions to facilitate the use of sudo ITMOTB on this forum. On this point, we are adamant, and this decision is not open to debate.

Any tool can be misused, and we cannot prevent any individual from abusing their own system. What

we can do is prevent the aiding and abetting of that misuse/abuse on this forum, where unwary and inexperienced new users could be exposed to it, and think we condone and support such abuse. We do not!

Within the framework spelled out above, we have no problem with anyone posting proper instructions to those seeking to use sudo in the responsible manner for which it was intended. Those that can't refrain from posting instructions to use sudo ITMOTB will be subject to post deletion, reprimand, and possible cancellation of their posting privileges on this forum.



**Looking for an old article?  
Can't find what you want? Try the**

**PCLinuxOS Magazine's  
searchable index!**

The **PCLinuxOS** magazine



# Run Dragon Naturally Speaking Under Wine

by Gary L. Ratliff, Sr. (eronstuc)

## The beginning of the story

Several weeks ago I submitted a story on how I was now able to talk to my computer to enter my articles instead of typing in the material. This concentrated on my recent purchase of the Dragon Naturally Speaking (DNS) Basics 11 version at the local Walmart for the low price of \$50. Now upon reading the user guide which came with the product, I learned that the product was for one person and could be installed upon more than one computer, provided that one user was the only one using it. So you could do work at the office on the computer there, and then bring work home and use their computer there.

Next the Editor told me this was a Linux publication and challenged me to get it to run on Linux. Being a Windows application, this would require installing it using Wine or some other product which would run Windows applications. I learned that my system had version 1.2 of Wine installed, and my attempt to install DNS using this version failed. So off I went to Wine HQ to learn if there were more recent versions which might function with DNS. Here I learned that Crossover, a product of Code Weavers, was the major sponsor of the Wine project and had made major contributions since Corel abandoned the Linux ship.

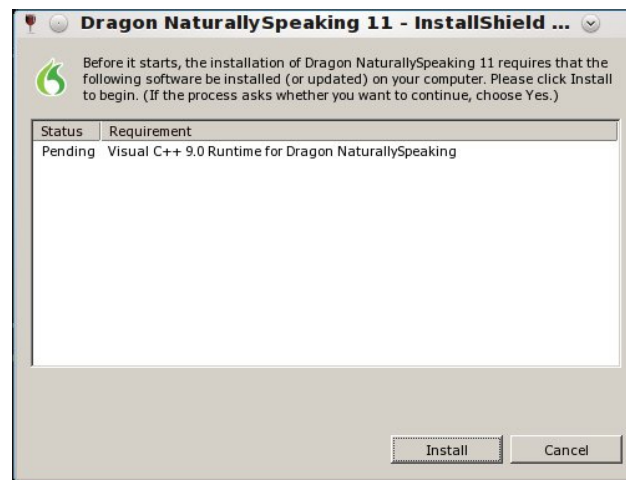
## The Trial with Crossover

I downloaded Crossover by obtaining install-crossover-11.0.2.bin and installing it, following the instructions. Indeed, this installed and ran DNS11 perfectly. However, it is a commercial product and

requires purchasing a license to use it beyond the trial period. Also, it is installed from outside the repos, so back to Wine I went. The only one I have on my system is version 1.2. Again I visit Wine Hq and download wine version 1.5.2 and run the configure and make commands. However, this did not give me a wineconsole command to allow reaching my DVD drive, which had the program's install DVD. A trip to Synaptic shows more recent versions of Wine but they will not install. So I changed my repository.

*Editor's Note: be sure to never have more than one repo selected in Synaptic (excluding the special "megagames" repository), since the mirrors all contain the same data but are synchronized at different times.*

Once I reloaded, I learned that version 1.4 of Wine was available. So, I installed Wine and Winetricks. Now I was ready to learn if Wine 1.4 could install DNS11.



I reached the wineconsole by giving the command 'wineconsole cmd.' Shortly after, an E: prompt was

presented. You will need to learn where the system thinks your DVD drive is. By working through the alphabet, I learned that my system had the program files on drive J. So, I used the dir command to get a list of the files, and began the installation by giving the command 'setup.exe'. As you can see from the screenshots, the first item to install is the required Visual C++ 9.005 runtime. Once this has been accomplished, the install shield begins to install the system files.



You simply click a series of next buttons while the product is installed to your "C:" drive. You will be asked for your name and the serial number of your product. When the product is installed, you will know it has completed when you see the "Finish" button.

Note that you will almost always want to use a typical install for your system (first screenshot, next page).

As you can see, the program is now installed. The next task is to setup your microphone and sound system to work with the product. The system is

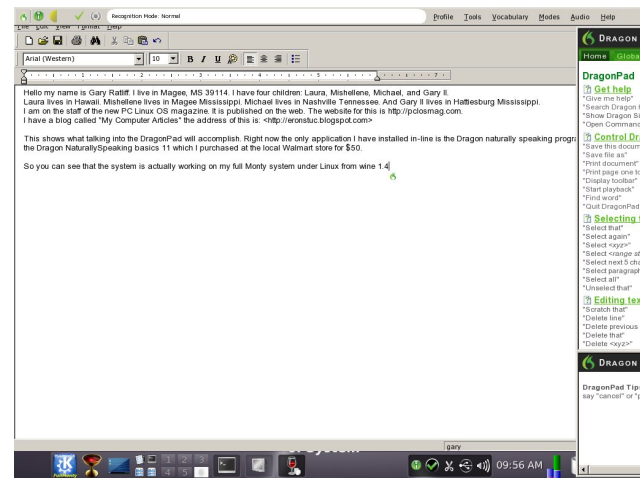


trained to the speaking of your voice. This is accomplished by reading various text passages for about 5 minutes, and then your user profile is created.

Once the profile is created, you are ready to launch the product. You should find that your start menu now contains an entry for Wine and there will also be a sub-menu for the various programs you install to Wine. If this is your first Windows application installed in Wine, there will only be the entry for Dragon Naturally Speaking 11.

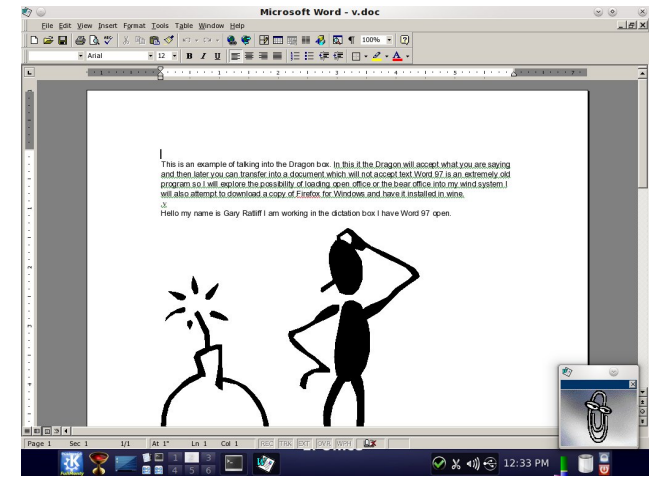
To dictate, you will need to either tap the + key on the numeric keyboard, or click the mouse on the microphone in the left corner of the Dragon toolbar. If the mike is red and down, it is off. If the mike is green and up, it indicates it is ready to accept dictation.

A tutorial is included with the product, which should guide you through the steps needed to become proficient in its use. From the toolbar, you may select from tools to load in the DragonPad, which will provide a page into which you may now dictate as shown in the following screenshot:



Now that you have a working system, you most likely will want to install other software to use with it, since it will only function with other Windows software. I had an old copy of Word 97 and installed this to my new Wine area. Giving Dragon the command "Open Word" did indeed launch this program. However, I soon learned that this old system would type nary a letter when you attempted to dictate to it.

The ability to write a document using Dragon and similar products is provided by opening the Dictation Box and speaking into it. Once you have the desired text, you simply transfer it into your application by clicking the transfer button.



Now that you have a system allowing you to produce text on the screen by talking instead of typing, you may want to get some other tools for this. Note that trying to load Internet Explorer while in Linux is a no-no, since Bill Gates' product informs you that its browser may only be used on Windows. Nor was the attempt to download the Windows version any more successful.

What you have to do is download the installer in Windows, then exit to Linux and use your Linux file manager to drag the installer into your system, and then install it using Wine.

Now that you know how to use Linux and Wine, you too can dictate your letters and other text documents.



**Answers to Mark Szorady's Double Take:**

**GEORGE**

(1) Hair different; (2) Mouth different; (3) Shirt collar missing; (4) Card in hnd smaller; (5) Shirt cuff missing; (6) Keypad smaller; (7) Bush missing

# *ms\_meme's Nook: Heroes Of PCLinuxOS*

*We who use  
and love  
PCLinuxOS  
are in awe of  
the guys  
and gals  
who give  
their time  
and talents  
to make this  
distro the  
very best*

PCLINUX MEN

*There's a place my heroes go to gather  
They meet there regardless of the weather  
To the forum they go to mix and share their little tricks  
All ties to Windows they did sever*



*To Linux they are faithful true forever*

*They're always working on creation  
Finding new ways for innovation  
Into files they go so deep no time they have to sleep  
They never even take vacation*



*Saving the PC Nation again and again*

MP3



OGG

*Always at their station they know they will win*





**Hero  
Texstar**

Main Man - Main Plan  
When his star was born  
we were reborn into an  
OS for the ages



**Hero  
Meemaw**

Scribus Scribbler  
As Assistant Editor her  
projects do not go  
unnoticed




**Hero  
Neal**

Neal-the Real Deal  
A Man among Bears  
Solid Rock that fortifies  
our OS foundation



**Hero  
parnote**

Magazine Mogul  
He gives and gives  
The Note PCLinuxOS  
Magazine ain't gonna be  
without



**Hero  
old-polack**

Administrator-Grub and  
File System Expert  
Works day and night to  
help us all be better  
PCLinuxOS users



**Hero  
pinoc**

Full Monty Maintainer  
Libre Office Manager  
We see what we like  
We like what we see



**Hero  
Sproggy**

Distro Driver-Packager  
Phoenix maintainer  
Whatever he does  
he does well



**Hero  
jaydot**

Administrator  
Extraordinaire  
Working behind the  
scenes to make us the  
best we can be



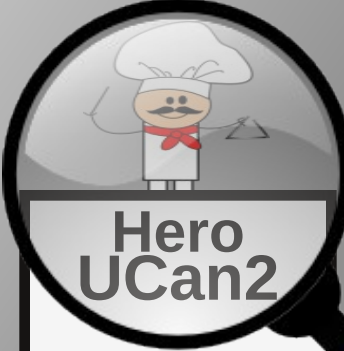
**Hero Scoundre**

Forum Administrator  
Rules with his hammer  
Not from Alabama



**Hero timeth**

PCLinuxOS  
Design Studio  
Bull Tamer  
Bull Namer



**Hero UCan2**

PCLinuxOS Mail  
PCLinuxOS Knowledge  
Base  
The Butcher The Baker  
The Knowledge Maker



**Hero davecs**

Forum Moderator  
Upside down  
but right on target



**Hero HootieG**

Forum Administrator  
Iced Latte maintainer  
Shoots from the hip  
Never a slip




**Hero Archie**

Former Forum  
Moderator  
Packaging Power  
from this Worthy  
Scribe




**Hero Leiche**

Script Author  
PCLinuxOS LXDE  
maintainer  
Scripts and slips he  
maintains so well



**Hero melodie**

PCLinuxOS Openbox  
maintainer  
Openbox is an open  
book to her




**Hero  
ms\_meme**

Words on her fingers  
Songs on her toes




**Hero  
Dragynn**

Zen  
Zen and chickens  
Has it both ways




**Hero  
menotu**

Wealth of knowledge  
A constant good read



**Hero  
ioechimp**

Big Bag of Fur  
Post Counter  
Committed to our  
PCLOS family




**Hero  
Linuxera**

Naughty\_Boy slayer  
Former Forum  
Administrator  
Creator of e17  
Remasters



**Hero  
siamer**

Zen  
Hardware  
and  
Software  
Does it all



**Hero  
Joble**

Those he touched will  
always remember

R.I.P.



**Hero  
Rudge**

He Drums He Cooks  
He Has Jrex  
Contributes Every Day





## Hero Forum

PCLinuxOS heroes are many  
They meet in the forum everyday  
Giving help and aid to others  
And it never is done halfway  
Some always keep us updated  
On the latest computer news  
Others post all about bacon  
Us they try to amuse  
Our PCLinuxOS family is caring  
Everyone there is a geek  
They love the Linux System  
Each member is special and unique



## Hero Juniors

longtomjr sprogyjr  
PCLinuxOS Kid's  
Forum Founders  
Gimp Inkscape Artists

The Future of Linux



## Hero djohnston

Hardware  
Software  
Magazine  
Does it all and well

# Move VirtualBox Drives With Ease

by Paul Arnote (parnote)

Many users, like myself, use VirtualBox to run a copy of another operating system on top of PCLinuxOS. It may be Microsoft Windows. Or it may be another Linux distro. Or, it may be one of the “fringe” alternate operating systems that the magazine’s Darrel Johnston has been writing about for a while. Whichever the case, VirtualBox allows users to run other operating systems from the comfort and security of PCLinuxOS, without having to reboot your computer. VirtualBox gives users ultimate flexibility, as well as the chance to “play” with other operating systems.



As I detailed in the [February 2012](#) issue of The PCLinuxOS Magazine, I recently built myself a new desktop computer from scratch. On my previous desktop computer, I was running a few different installations of other operating systems in VirtualBox. I didn’t want to lose those VirtualBox installations, and I certainly didn’t want to have to reinstall all of them from a raw start – and have to apply all those updates. While the former usually

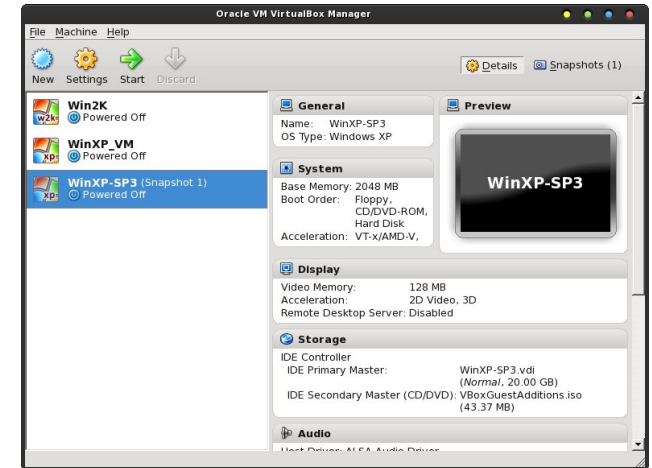
takes less than an hour, applying updates to Windows installations can be an all day affair.

To avoid having to reinstall all of those different Windows installations, I simply chose to move the VirtualBox virtual hard drive files to my new machine. To do this, I first had to find where VirtualBox stored the virtual hard drive files. Fortunately for me, I always pointed VirtualBox to store them on my extra 320 GB drive, in the “vm” folder. Since I had the most space available there, it made sense to store the rather largish hard drive images there. So, I backed up all the \*.vdi files stored in my “vm” folder to my 500 GB USB hard drive, prior to switching my desktops around.

Before I go much further, there are a few different ways to move VirtualBox virtual hard drive files. The method I’m going to detail here is the one I’ve used, and it has worked perfectly for me every time. Some guides tell you to go into VirtualBox’s Virtual Machine Manager and “release” the drive image from VirtualBox – which makes sense if you are only moving the virtual hard drive file and re-attaching it to the same VirtualBox installation. Otherwise, VirtualBox may nag you to death about not being able to find one of its virtual hard drive files.

I’ve also seen other guides recommend that you go into the snapshot settings for a virtual machine and “merge” those snapshots into just one image. I have to admit that I’ve never done this step, and my virtual hard drive images, along with all of its snapshots, have made the move without incident.

Above (top of next column) is how my VirtualBox window appears when I launch it (I’ve since gotten rid of the WinXP\_VM image, since it was BSOD’ing me to death). When you highlight the selected virtual machine, all sorts of useful information pops up on

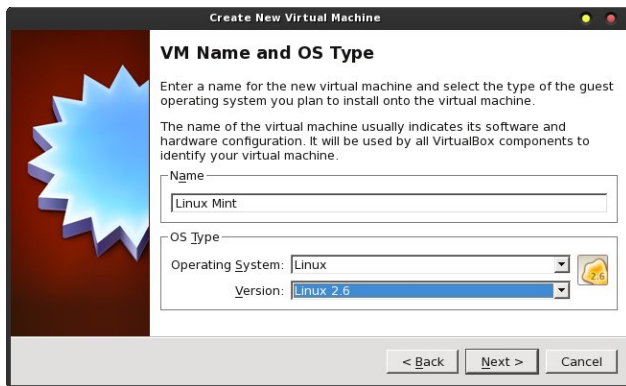


the right side of the screen. As long as the virtual machine isn’t running, you can change many of those settings, including how much RAM and video RAM you dedicate from your host system (PCLinuxOS, in this case) for the virtual machine’s use. Notice under the “Storage” category, the “IDE Primary Master” file is called “WinXP-SP3.” That is the filename – minus the path – for the virtual hard drive file that VirtualBox is using for that particular virtual machine.



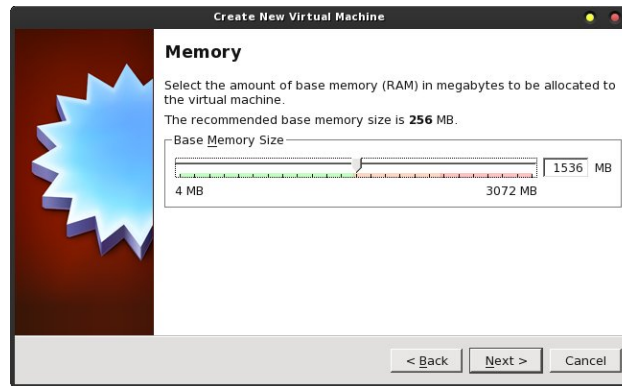
Also stored on my 500 GB USB hard drive is a virtual hard drive file for a three or four year old copy of Linux Mint, with the KDE 3.5.8 desktop. For the rest of this article, we'll be walking through the "resurrection" of that hard drive image in VirtualBox. To get started, click on the "New" in the VirtualBox toolbar.

This launches the "New Virtual Machine Wizard" in VirtualBox. There's not much to do here, other than read, so let's click next and move on to the next screen.

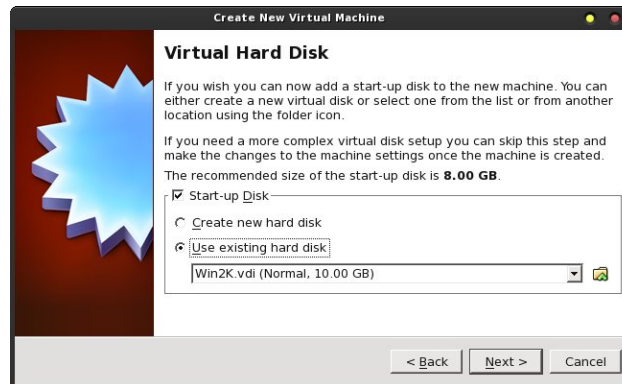


In the next window, you give the name that you want to be displayed in the list of your virtual machines in VirtualBox. If not already automatically selected, you will want to also select the Operating System type, as well as the version. When I typed in Linux Mint, VirtualBox recognized it and pre-selected "Linux" and "Linux 2.6" for me. Once you've done these steps, select the "Next" button to proceed to the next screen.

Next, you have to tell VirtualBox how much of your host's memory you want to dedicate to running the selected virtual machine. Despite having 8 GB of RAM on my new desktop and running the 2.6.38-8-pclos3.pae.bfs kernel, VirtualBox does not see all of my RAM. So, I feel comfortable allocating 1/2 of the "visible" RAM to running the three or four year old version of Linux Mint in the virtual machine, since



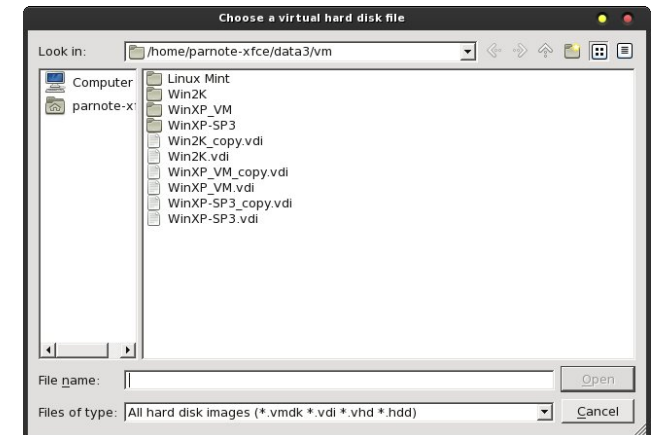
PCLinuxOS is able to see all of my 8 GB of installed RAM.



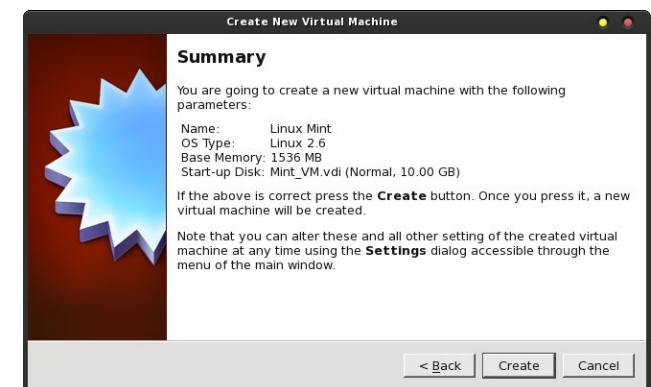
Now we need to tell VirtualBox where to find my previous virtual hard disk file. You will notice that "Start-up Disk" is checked. Right below it, your options are to "Create new hard disk" and "Use existing hard disk." You would normally choose the first option, if you were making a new installation. However, we need to choose the second option. Select the small folder icon to the right of the drop down list box immediately below.

This will open up the typical "File Open" dialog box. Choose the \*.vdi file that represents the virtual hard drive file you are wanting to import into VirtualBox. In our case, we need to travel into the "Linux Mint" folder, and select the Mint.vdi file. You'll be returned to the previous dialog box once you make your

selection. Click the "Next" button there to proceed through the rest of the VirtualBox Wizard.



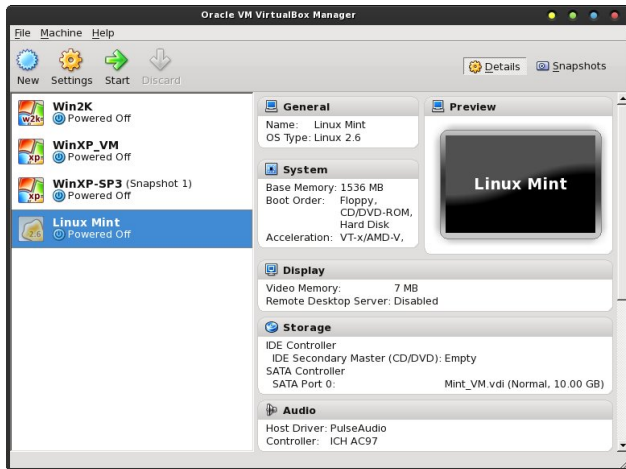
You'll also notice that I keep "copies" of my virtual hard drive files, just in case one of them becomes corrupted. This is a lot easier to do when you have literally tons of extra storage space. I don't bother running anti-virus software in my Windows installations. If I pick up a virus, I simply delete the virtual hard drive file and reinstall from the copy. Of course, this only works if you are diligent about making the copies – and keeping them current. I can usually be back up and running from a clean installation in the amount of time it takes me to copy and rename the backup file – usually less than five minutes.





## Move VirtualBox Drives With Ease

Your last window in the VirtualBox Wizard is the “Summary” window. If you are satisfied with everything that is detailed in the window, select the “Create” button.



Well, of course it does, as the Linux Mint window above illustrates. Highlighting the Linux Mint virtual machine in VirtualBox, then selecting the “Start” icon on the VirtualBox toolbar launches the virtual machine.

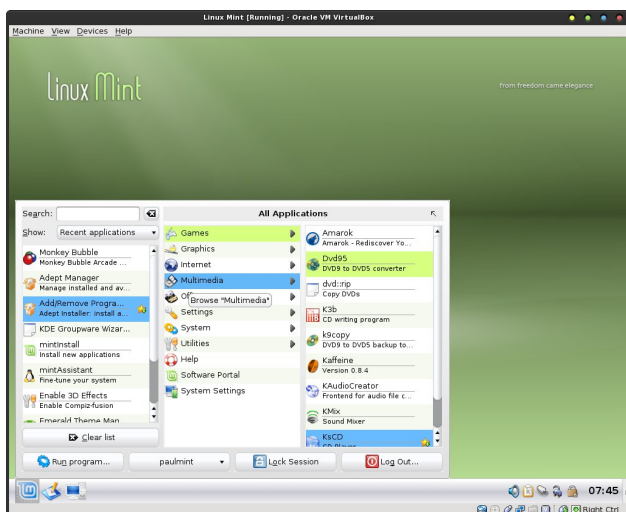
### Summary

VirtualBox is an extremely handy tool for just about any computer user – regardless of which operating

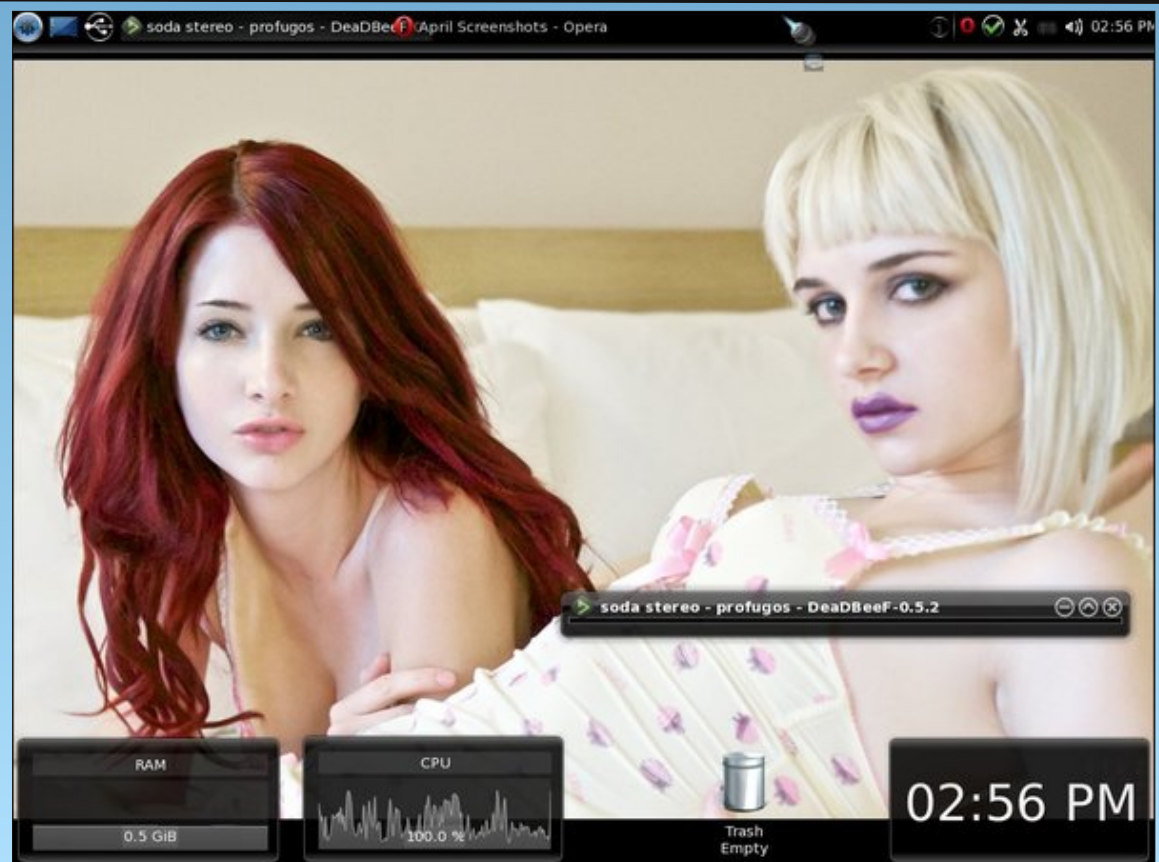
system they are using as a host. It allows you to try out as many OS's as you want, with the only restriction being the available space on your hard drive.

The method I detailed above has never failed me. Moving to a new computer, and moving all of your virtual machine hard drive files along with it, couldn't possibly be any easier.

After creating your new VirtualBox virtual machine (actually, we just imported an old \*.vdi file), you'll find your old virtual machine now shows up in the list of available virtual machines in VirtualBox. Of course, it's always wise to check to make sure that the imported virtual machine runs as you expect.



## Screenshot Showcase



Posted by T6, April 2, 2012, running KDE4.

# Gnome 2.32: Resources

by Paul Arnote (parnote)

As the magazine closes out coverage of Gnome 2.32, I'd like to leave you with some additional resources that you can call upon to further expand your knowledge. As you can imagine, since the announcement of Gnome 3.x, most of the remaining Gnome 2.32 documentation is found at the sites of other Linux distros.

Before long, much of the Gnome 2.32 documentation may become difficult to find. Thus, you may want to print out any of the Gnome 2.32 documentation that you find for future reference. Perhaps an even better idea would be to convert it all to PDF files, rather than relying on a fragile paper copy as your only source of reference.

[Gnome 2.32 Desktop User Guide](#) - this is a copy of the official Gnome 2.32 user guide, from the Linux Mint web site. If you want to know "typical user" stuff about Gnome 2.32, this is the definitive resource. Just in case you are unable to access the aforementioned copy of the Gnome 2.32 Desktop User Guide, you can also access a copy stored at the [Linux Mint](#) web site.

[Ubuntu Pocket Guide and Reference](#) - if you stop and think about it, this one makes sense. Ubuntu's "flagship" release is (was) built around Gnome. Therefore, books that deal with Ubuntu-proper will obviously have to deal with Gnome.

[Mate Wiki](#) - just as there is the Trinity desktop fork for KDE 3.5.x lovers, Gnome 2.32 loyalists have forked Gnome 2.32. The project's name is Mate. It's only natural to want to keep an eye on this page, as well as the [Mate home page](#). Since Mate is an attempt to keep Gnome 2.32 breathing and with a

heartbeat, the information should be applicable to Gnome 2.32 – at least for a while. Since it only really got off the ground in December, 2011, given a little time, it should be quite the source for Gnome 2.3x information.

[Gnome Library](#) - there is plenty of Gnome 2.x documentation still available on the Gnome Library site. This is one site with literally TONS of information. The areas are divided into subsections for users, administrators and developers. Steadily, and unfortunately, Gnome 3.x data is starting to supplant the Gnome 2.x information. I do hope that someone has the foresight to archive the Gnome 2.x information (Mate developers? Are you listening?)

[FreeBSD GNOME Project](#): Gnome 2.32 - FreeBSD has a good bit of support information for Gnome 2.32. Be selective with the information there. The information is FreeBSD-centric, so some stuff will apply, while other things won't.

[Mate Desktop](#) - since the Mate Desktop is the "official" effort to keep Gnome 2.3x alive, you may be interested in keeping track of what is transpiring with its continued development. You can also check out the special Mate Desktop sections on the [Ubuntu](#), [Linux Mint](#), and [Arch Linux](#) forums.

[Linuxgator.org](#) - finally, PCLinuxOS Gnome has its own site and forum. This should be the first place PCLinuxOS Gnome users go for assistance, since the information is PCLinuxOS-centric. Just as in the main PCLinuxOS forum, the folks there are very nice and friendly. In fact, you are likely to see a few familiar faces haunting the forum there.



**The PCLinuxOS Magazine**

**Created with Scribus 1.3.9**

## Summary

I hope that you have found the magazine's coverage of Gnome 2.32 helpful. Since Gnome 3.x has a special "fallback" mode, I thought it was important to cover Gnome 2.32 before covering Gnome 3.x. Also, Gnome 2.32 – or some resemblance of it – should remain persistent for a while longer. Of course, no one can tell the future of the Mate Desktop project, and whether it will fail or succeed. One thing is for certain: Gnome 2.32, and the Gnome 2.x releases that preceded it, has left an indelible mark on Linux history.



## Want To Help?

Would you like to help with the PCLinuxOS Magazine? Opportunities abound. So get involved!

You can write articles, help edit articles, serve as a "technical advisor" to insure articles are correct, create artwork, or help with the magazine's layout.

Join us on our [Google Group mailing list](#).

# WindowMaker On PCLinuxOS: WindowMaker Themes

by Patrick G Horneker (phorneker)

This is the WindowMaker article we have all been waiting patiently for: How to create and use themes. First, themes for WindowMaker will work on any operating system that can run WindowMaker.

*(Historical Note: The Linux distribution that was supplied by Sony for its PlayStation 2 back in the late 1990s used WindowMaker for its default desktop.)*

## Where to Place Themes

The first thing we need to know about themes is where WindowMaker expects to find them on your system.

For PCLinuxOS, themes that are accessible to all users on your machine are stored at:

`/usr/share/WindowMaker/Themes`

Each user on your system can install themes for his/her own use in the following directory:

`~/GNUstep/Library/WindowMaker/Themes`

In an earlier article, I showed you where you can download themes from the Internet. In this article, I will show you how to create your own themes. When you download themes from the Internet, you download a **.tar.gz** file containing an archive of the theme to be installed.

## About The Theme Archive (.tar.gz file)

The `~/GNUstep/Library/WindowMaker/Themes` directory can be populated with theme archives. You can leave them as it is (in compressed form), or you can unpack the archives (using `tar -zxvf <theme archive>.tar.gz`). WindowMaker can work with these files either way.

We could leave the theme archives in compressed form to save disk space, but WindowMaker would have to decompress the file every time we change the theme. On newer laptops and desktops (with 2GB or more of memory), this should not really be a concern. However, if you have an older PC (about Pentium IV or earlier) with 512MB or less, there will be some delay due to the overhead needed to decompress the theme archives.

Uncompressing the theme archives allows us to modify the contents of the theme.


So how do we start a new theme?

First, create a new directory in your userspace. Be sure to append **.themed** to the end of your directory name so WindowMaker will know that this directory contains the contents of a theme. For example: If you call your theme **MyCoolTheme**, then you would create a directory named **MyCoolTheme.themed** somewhere in your userspace.

**Tip:** Create an empty directory in your userspace where you can build new themes. Then when you are ready to deploy your themes on your system, simply copy the contents of that directory to `~/GNUstep/Library/WindowMaker/Themes` to make your new themes available for use with WindowMaker.

**Tip:** Do *not* use `~/GNUstep/Library/WindowMaker/Themes` to create new themes. First, anything that goes into that directory is immediately available to WindowMaker. Second, if you compress the **.themed** directory to an archive (i.e. a **.tar.gz** file), your theme will be listed twice when you go to select a theme (one entry for the **.themed** directory, and one for the archive file).

If you have a graphical file manager installed, you may use it to create an empty directory to store your created themes. However, I recommend using a command line on a terminal such as **xterm**, **konsole**, or **gnome-terminal** because of some of the commands we will be using when we create WindowMaker themes.



```
patrick@localhost ~]$ mkdir WmakerThemes
patrick@localhost ~]$ cd WmakerThemes
patrick@localhost WmakerThemes]$ ls
patrick@localhost WmakerThemes]$
```

In this example, I used **xterm** to create an empty directory (called **WmakerThemes**) for creating WindowMaker themes.

**Tip:** Creating an empty directory allows you to package themes for distribution (as **.tar.gz** files) without disturbing WindowMaker itself. Themes created here can be used on any computer running WindowMaker, whether the underlying operating system is PCLinuxOS, OpenSuSE, Slackware, FreeBSD, or other any other UNIX dialect.



## What Makes Up A Theme?

A WindowMaker theme consists of:

1. A directory with the name of the theme followed by the **.themed** for the required extension.
2. A file called **style**, containing data that describes how WindowMaker's window elements are displayed. This is required in every theme, and the file must be named **style** for the theme to work with WindowMaker.
3. Graphics that are to be used by WindowMaker. These graphics are loaded according to the contents of **style**, and must be in the same directory as **style**.
4. Optional: Text files that describe the contents of the theme, copyright and licensing information, contact information, etc. These files are for documentation purposes only, and are recommended so others who want to know more about the theme can do so.

In this example, we are in the WmakerThemes directory. To create a new theme, we shall create a new directory within WmakerThemes. You can name this anything you like. Just be sure to append **.themed** to the name when you create the directory so WindowMaker will recognize the theme.

As we have seen when working with WindowMaker Configuration Manager and Wprefs.app, most every element that goes into a WindowMaker window is very configurable. For instance, the title bar can be a solid color, or it can be a part of a photograph, or it can be a gradient. A theme can be as creative or as plain as you want it to be.

## An Example Theme

Let us say that we want to create a theme to match my [website](#). Then, we shall call this theme horneker-com. With the terminal window open and the current

working directory being ~/WmakerThemes that we created previously, we create a new directory, then change to that directory by typing the following:

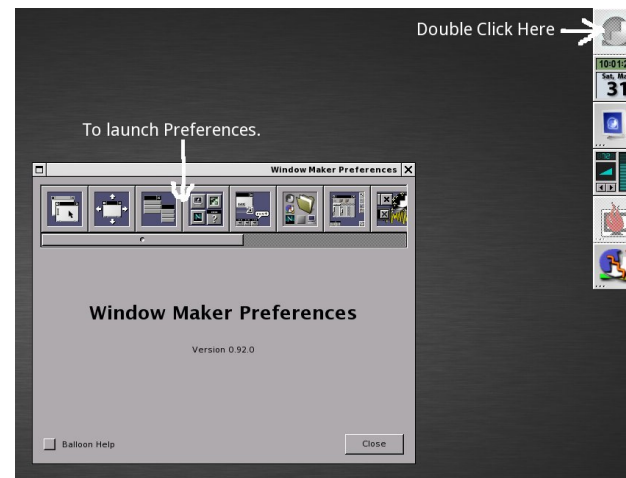
```
mkdir horneker-com.themed
cd horneker-com.themed
```

Now we are ready to design our new theme.

**Note:** *You can minimize the terminal window to minimize distraction when creating our theme, but the terminal will be available when we need it later.*

*I could have named this horneker.com.themed, but I have never seen a theme with multiple dots in its name at any website that hosts WindowMaker themes.*

We have two tools at our disposal to begin the design: The Configuration Manager, and the Preferences Applet (Wprefs.app). The latter is accessed by double clicking on the GNUstep Icon on the upper right hand corner of the screen (where the Dock resides).



With the Preferences open, slide the scroll bar to the right where the tools we need will show in the window. The second and third buttons to the right of the toolbar give us what we need, namely colors and fonts. This is where we go to start the design.



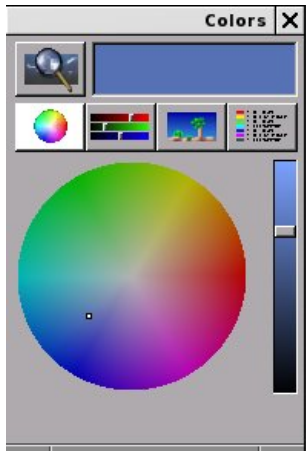
Here we have selected Appearance Preferences. What we see is a visual tool where we can select desktop elements to modify. The box on the left allows you to con the desktop element you want to work on. As we are editing these elements, changes appear in this window so we can see what we are doing.

Here, we have the Focused Window titlebar selected as the element we are working on. The right side box contains a visual tool made up of popup menus, tabs and buttons. To edit this element, click on Edit in the right box.

Here, we can get into further detail. In this example, we have a vertical gradient of two colors, with each color represented as values of red, green and blue.

Selecting the left direction button changes the gradient to a vertical gradient. The middle direction button selects a horizontal gradient. The right direction button selects a diagonal gradient.

Default Color allows you to select a base color of which you can use in your theme design for each element.



Clicking on Default Color opens a color palette window. Here, we get a color wheel from which to directly select a color.

The slider on the right side adjusts the brightness of the currently selected color. Notice that as you use the slider, the selection is modified to reflect the change you make.



The magnifier on the upper left hand corner allows you to pick a color from the desktop using a “magnifying glass”. You see a closer view of the desktop where the mouse pointer is located. Clicking at this point will select the color of the pixel where the mouse pointer is currently located.

The currently selected color is displayed on the color swatch to the right of the “magnifying glass”.

You can also select colors using sliders. Below the swatch and magnifying glass are four buttons. The first button selects the color wheel (top, left).

The second button selects sliders you can use to select your colors (middle, previous column).

There are four sliders for this tool. The first (displayed here) allows you to select the brightness of the color (as a percentage of white on the greyscale).

The second slider allows you to select red, green and blue values for color. The RGB model refers to basic components of color for displays and photographic transparencies.

The third slider allows you to select cyan, magenta, blue and key (black) values for color. The CYMK color model refers to the basic color components used in printing. (This is also why the colors used in your inkjet printer are cyan, magenta, yellow and black, and not red, green and blue.)

The fourth slider allows you to select color in terms of hue, saturation and brightness.

The third button displays the spectrum of colors instead of a color wheel (bottom, previous column). There is only one palette to choose from, and only one spectrum to choose from at the moment.

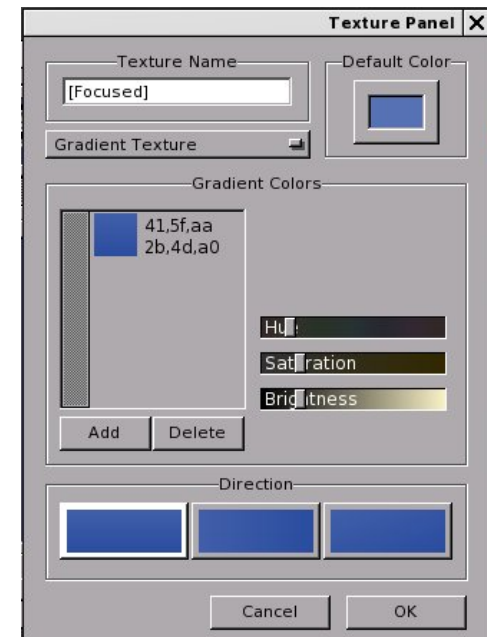
To this date, I have not seen any installable palettes for this tool.

The fourth button is used to store names of colors often used.

For purposes of this article, we shall not worry about this feature, as there has hardly been any recent development on this tool.

Changes you make here immediately take effect. To exit, simply close the window by clicking on the X in the upper hand corner of the window.

There is a popup menu where you can select the type of texture you want to use for the desktop element. Currently, Gradient Texture is selected.



You can select from the following:

**Solid Color:** Here, you can only select the color to use.

**Simple Gradient Texture:** Here, you select two colors, namely the color where you start the gradient, and the color where the gradient ends. You can also select the direction the gradient is displayed, namely vertical, horizontal or diagonal.

**Gradient Texture:** Similar to Simple Gradient Texture, the difference being that you can select which colors are to be included in the mix, and which order the colors are to be displayed. This is the default setting when you open Appearance Preferences.

**Textured Gradient:** Similar to Simple Gradient Texture, the difference here being that the simple gradient is overlaid on top of an image that you supply as a parameter. This image must be in XPM, XBM, JPEG, PNG, or GIF format. You also get the

option of whether to tile the image, center the image, rescale the image to fit (with cropping possible), or maximize the image to fit the element. You can also select how much of the gradient you want to show on top of the image (the opacity option).

**Image Texture:** Here, you supply an image in the XPM, XBM, JPEG, PNG or GIF format. The image can be tiled, centered, rescaled (with empty space possible), or maximized to fit the space. Any space unused is filled with the color option, that you select similar to the other options.

With all of these options available, only your creativity can limit what you can do with a WindowMaker theme.

Back to our example theme. The graphics on my website are primarily greyscale images. This is part of my preference in website design, and greyscale works with most any device that can display web pages, including some e-Readers such as the 6-inch Pandigital Novel (which can only display in greyscale).

Notice that each element is configured separately. There are seven desktop elements available, namely:

**Focused Title Bar:** This is displayed for the window that is currently interacting with the keyboard and mouse.

**Unfocused Title Bar:** This is displayed for other windows on the current desktop, except for the parent of the window that has the keyboard and mouse focus.

**Owner of Focused Title Bar:** This is displayed for the window that has control of the window that currently interacts with the keyboard and mouse.

**Resize Bar:** Appearing at the bottom of windows, this element allows you to resize windows on your desktop (where possible).



**Menu Title Bar:** This is the background for the header of menus that are displayed by WindowMaker.

**Menu Item:** This is where the background for menu items is displayed.

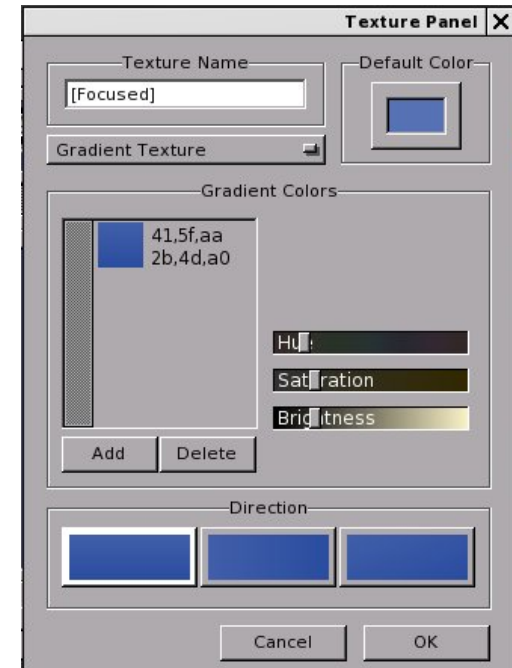
The color and options tabs provide more configuration options, including color of text items, and text alignment.

For this theme, I want to use greyscale elements. Let us start with the title bars. I would like to do greyscale gradients with the title bars and with the resize bar. Since the current element being edited is the Focused Window, we shall start with that. For this process, we shall click the Edit button to work on the Focused Window.

For the title bars, I want to create gradients that have a glossy look. What I am editing now are the title bars for windows that interact with the keyboard and mouse.

The colors shown here are from the default theme for PCLinuxOS. We shall use the Gradient Texture option rather than the Simple Gradient Texture

option as we will be expanding on the list of colors shown here.



First, let us edit the basic colors shown here. To edit a color, simply select a color on the list and use the slider in the same window.

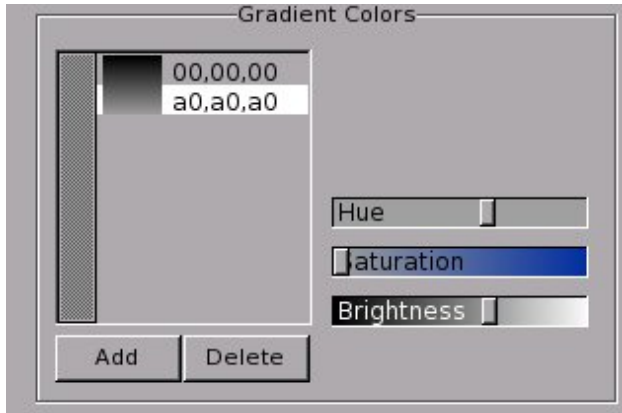
**Tip:** To achieve the greyscale effect on colors used here, set the Saturation level to zero (0), i.e. remove any intensity of the color hue. When this is done, the value of hue can be anything you want. For greyscale values, the hue value is irrelevant.

For most everything in WindowMaker, colors are represented as rr,gg,bb where rr, gg and bb contain red, green and blue values (respectively) in hexadecimal format ranging from 00 to FF.

*Mathematical Note:* For those of you who are not familiar with hexadecimal numbers, here is an explanation for what hexadecimal is. The decimal numbers is a base 10 system, that is there are ten numbers possible for a digit whose range is from 0



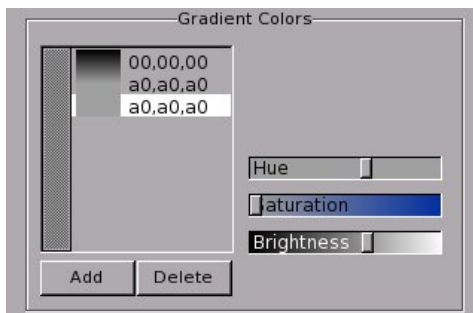
through 9. Hexadecimal numbers have sixteen possible values for a digit. We have all the digits of a base 10 number, i.e. zero through nine. To represent values of 10 through 15, the letters A through F are conventionally used.



Here, I set the saturation to zero (0) to obtain the grayscale values (of which there are 255).

So far, I have edited the current values so the gradient starts at (00,00,00) and ending at (a0,a0,a0). For those of you who are familiar with CSS stylesheets in website development, (00,00,00) equates to #000000 and (a0,a0,a0) equates to #a0a0a0.

We can add (and delete) colors to this list to adjust the final gradient to what we want. Feel free to experiment with color choices here. When you have what you want for the gradient, click on OK to commit the changes.



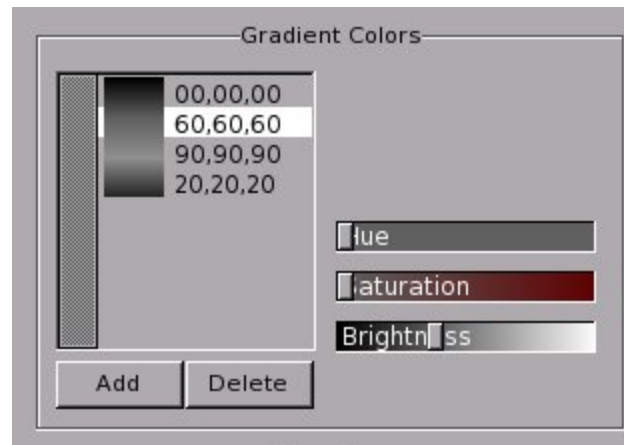
To add a color, highlight the line where you want to insert the new color. Click on Add. A copy of the highlighted line is made and inserted above where you highlighted (as shown here).

Add as many lines as you want, then edit each line so you can build your gradient the way you want it.

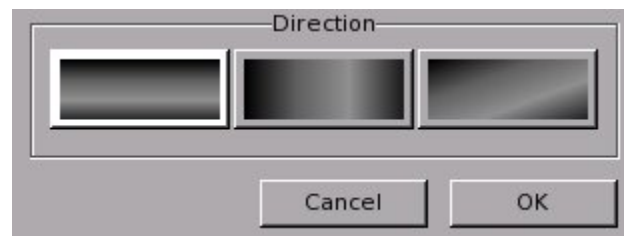
In my example, I added two lines and edited the list so it reflects the following:

```
00,00,00
60,60,60
90,90,90
20,20,20
```

...and here is the result of this list.



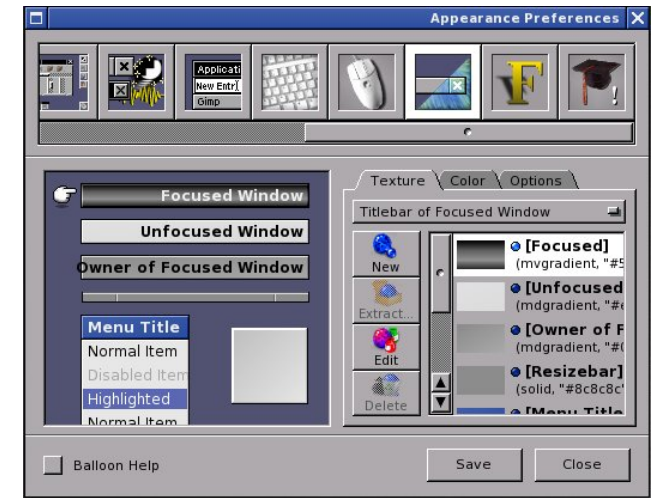
As we build this list, we can immediately see how the finished gradient will look.



Next, we need to choose the direction the gradient will be displayed.

Clearly, we can see which variant can best be displayed on a title bar.

Since this has already been selected when this dialog box was opened, we can click on OK to commit the changes.



As we can see, the change to the theme we are building is immediate. However, the change does not take effect in the WindowMaker session until we click on Save.



After clicking on Save, we can see the changes to the current WindowMaker session are immediate. We can do the same with the other elements of the desktop.

For the Owner of Focused Window, I used the following gradient:

40, 40, 40  
60, 60, 60  
90, 90, 90  
40, 40, 40

For the Unfocused Window, I used the following gradient:

80, 80, 80  
a0, a0, a0  
e0, e0, e0  
80, 80, 80

All title bars display their gradients horizontally.

For the Resize Bar, I use the following gradient:

10, 10, 10  
90, 90, 90  
e0, e0, e0  
b0, b0, b0  
00, 00, 00

This gradient, when displayed horizontally, produces a 3D effect for the resize bar.

For the menus, I used the following gradient for the title bar:

00, 00, 00  
40, 40, 40  
a0, a0, a0

The gradient here was displayed horizontally.

For the menu itself, I used the following gradient:

00, 00, 00  
00, 00, 00  
40, 40, 40  
a0, a0, a0

With the color tab, I made the following settings:

Menu item text: ff, ff, ff  
Disabled item text: a0, a0, a0  
Highlight Text: 40, 40, 40

The options tab provides three settings for how the menus are displayed:

1. Item dividers displayed, with the gradient displayed inside each item.
2. Item dividers displayed, with the gradient spanning the entire menu.
3. No item dividers displayed, the gradient spans the entire menu.

In addition, items can be aligned to the left, centered, or right justified. For this example, menus have no item dividers displayed, and the gradient spans the entire menu.

Finally, I created the following gradient for the Icon background:

00, 00, 00  
60, 60, 60  
c0, c0, c0

and made the gradient diagonal, which is best for a 64x64 tile.

Here is the result of the changes to the desktop elements after going through this example.



## Customize the Fonts

WindowMaker allows you to change the fonts displayed. Sans-serif is the default font used with WindowMaker as it is available with most any Linux distribution, as well as FreeBSD, NetBSD, OpenBSD, or any other operating system that can run WindowMaker as a desktop.



Here, I have used Nimbus Sans as it is a clean and attractive font that comes standard with PCLinuxOS,

Ubuntu, Fedora, OpenSuSE and many other Linux distributions.

Fonts can be changed for the following:

1. Window Titles
2. Menu Title Bar
3. Menu Text
4. Icon Titles
5. Title on the Clip
6. Desktop Caption (that appears on the center of the screen when desktops are switched)

Once we have the theme configured so far, we can close out the Preferences tool.

## Create the Style File

Earlier, we opened a terminal window to create the directory to store the theme. We are going to need that terminal to create a file called **style**. This is a required file for every theme so WindowMaker can properly use the file.

```

patrick@localhost: ~/WmakerThemes/horneker-com.them
[patrick@localhost ~]$ cd WmakerThemes/
[patrick@localhost WmakerThemes]$ ls
horneker-com.themed/
[patrick@localhost WmakerThemes]$ cd horneker-com.themed/
[patrick@localhost horneker-com.themed]$ getstyle -p >style
[patrick@localhost horneker-com.themed]$ ls
style
[patrick@localhost horneker-com.themed]$ 
    
```

Creating the file requires a command line interface. First, open a terminal window and change to the directory where the theme is stored.

Next, type the following:

```
getstyle -p >style
```

Type `ls` to verify the style file has been created. The `-p` creates a compressed version of the style file. Normally, this is done to save space. Your terminal window should look something like the following:

```

patrick@localhost: ~/WmakerThemes/horneker-com.them
[patrick@localhost ~]$ cd WmakerThemes/
[patrick@localhost WmakerThemes]$ ls
horneker-com.themed/
[patrick@localhost WmakerThemes]$ cd horneker-com.themed/
[patrick@localhost horneker-com.themed]$ getstyle -p >style
[patrick@localhost horneker-com.themed]$ ls
style
[patrick@localhost horneker-com.themed]$ 
    
```

At this point, we have created a basic theme. To package this for distribution, type the following:

```
chdir ..
```

```
tar -cv horneker-com.themed/ >horneker-com.tar
```

```
gzip horneker-com.tar
```

We have just created a theme that can be used with any machine running WindowMaker. Type `ls` to verify this.

## About the Style File

Typing `getstyle` (without any parameters) in the terminal window will display the following with the newly created theme:

```

{
  LargeDisplayFont = "Nimbus Sans
  L:slant=0:weight=80:width=100:pixelsize=72"
;
  HighlightColor = "#404040";
    
```

```

MenuTextExtendSpace = "-1";
FTitleColor = "#e9eae9";
MenuTitleExtendSpace = "-1";
MenuTextFont = "Nimbus Sans
L:slant=0:weight=80:width=100:pixelsize=12"
;
  UTitleBack = (mvgradient, "#e9eae9",
"#808080", "#a0a0a0", "#e0e0e0",
"#808080");
  IconTitleFont = "Nimbus Sans
L:slant=0:weight=80:width=100:pixelsize=10"
;
  PTitleBack = (mvgradient, "#000000",
"#404040", "#606060", "#909090",
"#404040");
  WindowTitleFont = "Nimbus Sans
L:slant=0:weight=200:width=100:pixelsize=12"
;
  UTitleColor = "#000000";
  MenuDisabledColor = "#a0a0a0";
  ClipTitleFont = "Nimbus Sans
L:slant=0:weight=200:width=100:pixelsize=10"
;
  MenuStyle = flat;
  MenuTextBack = (mdgradient, "#e6e7e6",
"#000000", "#000000", "#404040",
"#a0a0a0");
  PTitleColor = "#000000";
  IconBack = (mdgradient, "#0000ff",
"#000000", "#606060", "#c0c0c0");
  MenuTitleBack = (mvgradient, "#5772b4",
"#000000", "#404040", "#a0a0a0");
  DisplayFont = "sans:pixelsize=10";
  FTitleBack = (mvgradient, "#000000",
"#000000", "#606060", "#909090",
"#202020");
  WindowTitleExtendSpace = "-1";
  TitleJustify = left;
  CClipTitleColor = "#a4a4a4";
  ResizebarBack = (
  mvgradient,
"#8c8c8c",
"#101010",
"#909090",
"#e0e0e0",
"#b0b0b0",
"#000000"
);
  MenuTextColor = "#ffffff";
  ClipTitleColor = "#000000";
    
```



```
IconTitleBack = "#2b4da0";
HighlightTextColor = "#ffffff";
IconTitleColor = "#ffffff";
MenuTitleFont = "Nimbus Sans
L:slant=0:weight=200:width=100:pixelsize=12
";
MenuTitleColor = "#eeeeee";
}
```

Colors here are represented as hexadecimal values formatted the same as hexadecimal values supplied on a CSS stylesheet, except the values are enclosed in double quotes.

Font names are enclosed in quotes and contain the following parameters:

1. Font name
2. Font style. **slant=0** means the font is of normal type. **slant=1** means the font is italicized.
3. Font weight. This determines the thickness of the font being used.
4. Font width. A value of 100 means normal width. Smaller values mean compressed type (in terms of the space occupied by the text). Larger values mean wider type.
5. Pixel size refers to the size of the font in terms of the height of the typeface. Usually, this refers to the point type (72 points to the inch).

For the attributes containing **ExtendSpace** in its name, these are boolean values, i.e. the only valid values are **TRUE** and **FALSE**. A value of -1 represents a TRUE value. A value of 0 represents FALSE (as one would expect).

*Programmer's Note: Whether we are working with a 32-bit processor or a 64-bit processor, a value of -1 is represented in binary as a string of 1s. For example, a 32-bit representation of -1 is read as 11111111111111111111111111111111. Adding one to this value resets all bits to zero.*

Gradients are represented as lists with the first parameter being one of the following:

1. mvgradient: vertical gradient
2. mdgradient: diagonal gradient
3. mhgradient: horizontal gradient

WindowMaker reads and processes gradients as lists. This list is used to render the gradient for the graphical elements.

Overall, this file looks like a piece of CSS code from a stylesheet. This is because much of the software that drives projects like WindowMaker, as well as standards of the Internet have their roots in the C programming language, and UNIX in general.

Also, the first web browser (Mosaic) was initially developed on a NeXT system, which ran NeXTStep (using a Mach kernel), which was an inspiration for WindowMaker itself, with a difference being that NeXTStep (as well as successors Mac OS-X and iOS) and GNUStep were developed with Objective C, whereas WindowMaker was developed in C.

## Screenshot Showcase



Posted by [ferry\\_th](#), April 6, 2012, running Openbox.

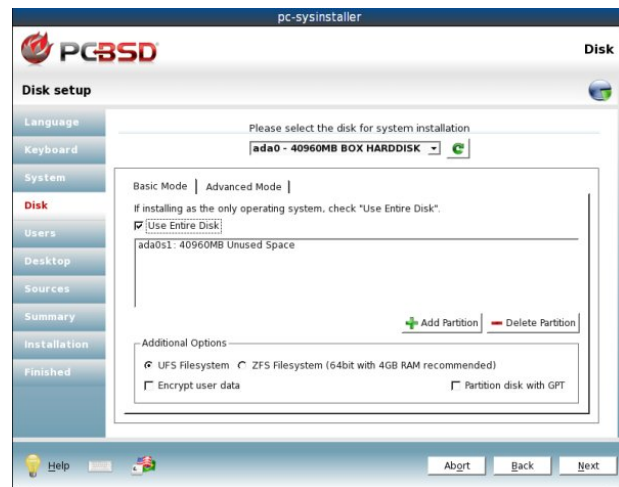
# Alternate OS: PC-BSD, Part 2

by Darrel Johnston (djohnston)

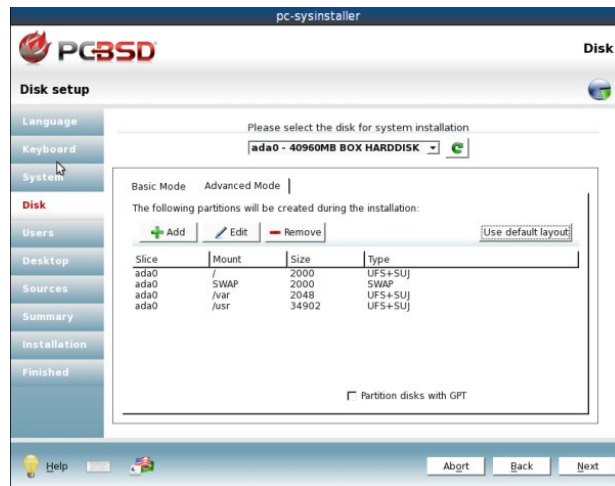
I must confess that I have re-installed PC-BSD since writing the last article. Not once, but twice. Once I began using the system, I ran out of disk space on one partition. The partitioning method I chose did not create a large enough /usr partition. I discovered my error after the KPorts PBI continually refused to install. More on PBIs a little later on.

That's why I reinstalled the first time. I reinstalled again because the first time around, I installed an XFCE desktop. That should not have been a problem. However, once I installed KPorts, it stubbornly refused to start. I checked error messages after launching it from a terminal, but could find nothing conclusive. Believing that the application might be missing something that is included in the KDE desktop, I reinstalled a second time, choosing PC-BSD's default KDE desktop. And, this time, I created a 40 GiB virtual disk.

In the Disk setup portion of the installation, I chose to use the entire disk with a UFS filesystem, just as before.



Next, I clicked the Advanced Mode tab and clicked the "Use default layout" button. As a result, the lion's share of the disk space was given to the /usr partition. 34GiB of the disk's 40GiB, to be precise.



Just before the Installation phase, this was displayed:

**The disk will be setup with the following configuration:**

Partition: ada0(ALL):  
FileSystem: UFS+SUJ  
Size: 2000MB  
Mount: /

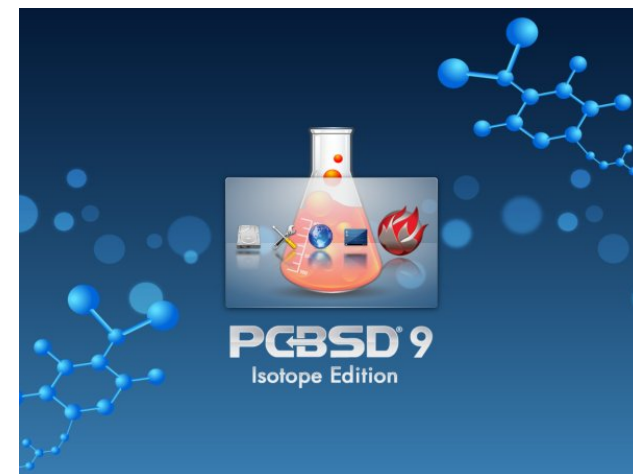
Partition: ada0(ALL):  
FileSystem: SWAP  
Size: 2000MB

Partition: ada0(ALL):  
FileSystem: UFS+SUJ  
Size: 2048MB  
Mount: /var

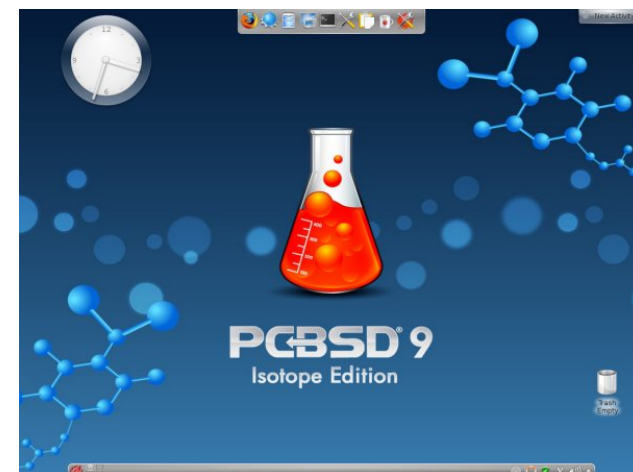
Partition: ada0(ALL):  
FileSystem: UFS+SUJ  
Size: 34902MB  
Mount: /usr

I then installed just as before, but with a KDE

desktop selected instead of XFCE. The KDE splash screen is shown below.



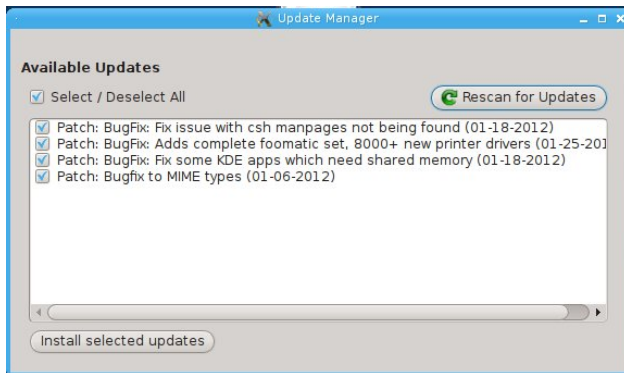
And the KDE desktop after applying a few customizations.



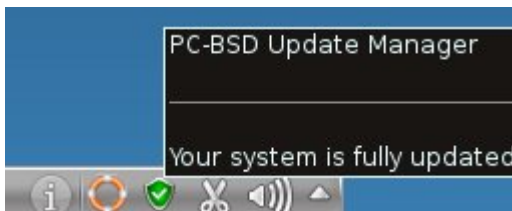
The KDE version is 4.7.3.



An update notifier is part of the standard KDE desktop, as well as XFCE. On first run, any updates to existing packages are displayed in a window, with the option to install them all with a single button click.



Once the updates are installed, the update notifier icon in KDE's system tray will change to a green shield.



Back to the subject of the /usr partition, you may be wondering why it needs to be so large. The short answer is that a lot of files are stored there. Most BSDs come with native Linux support, and PC-BSD is no exception. There is a /home directory, but it's actually a soft link to /usr/home.

```
[darrel@pcbsd-2626] ~-> ls -l /home
lrwxr-xr-x 1 root wheel 9 Jan 5 13:00 /home -> /usr/home
[darrel@pcbsd-2626] ~->
```

In addition to user's home directories being stored in the /usr directory, many libraries and binary executables are stored there.

```
[darrel@pcbsd-2626] ~-> ls -l /usr/
total 84
lrwxr-xr-x 1 root wheel 10 Dec 27 19:58 X11R6 -> /usr/local
drwxr-xr-x 2 root wheel 7680 Apr 9 23:11 bin
drwxr-xr-x 2 root wheel 512 Dec 27 15:46 games
drwxr-xr-x 3 root wheel 512 Apr 9 23:11 home
drwxr-xr-x 52 root wheel 5632 Dec 27 15:48 include
drwxr-xr-x 7 root wheel 12800 Dec 27 15:48 lib
drwxr-xr-x 4 root wheel 512 Dec 27 15:46 lib32
drwxr-xr-x 5 root wheel 512 Dec 27 15:46 libdata
drwxr-xr-x 6 root wheel 1536 Dec 27 15:48 libexec
drwxr-xr-x 20 root wheel 512 Apr 10 04:44 local
drwxr-xr-x 2 root wheel 512 Dec 27 15:46 obj
drwxrwxr-x 7 root operator 512 Apr 21 19:49 pbi
drwxr-xr-x 67 root wheel 1536 Apr 9 23:09 ports
drwxr-xr-x 2 root wheel 5632 Apr 9 23:16
```

```
sbin
drwxr-xr-x 27 root wheel 512 May 18 2010 share
drwxr-xr-x 2 root wheel 512 Apr 10 04:43 swap
```

After installing Firefox, htop, mc and KPorts, the /usr directory already occupies 9GiB of disk space.

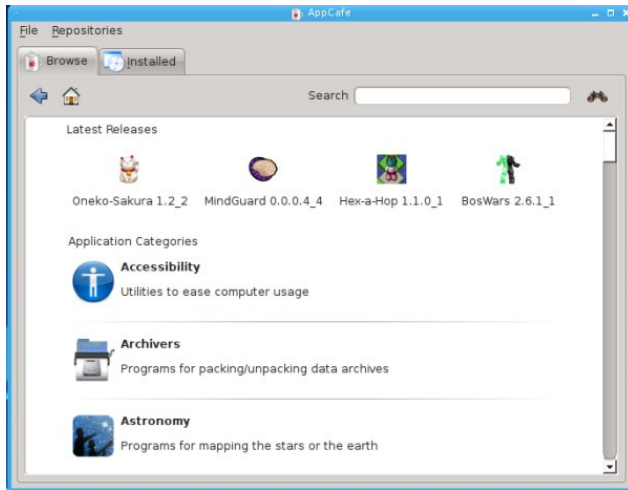
```
[darrel@pcbsd-2626] ~-> df /usr
Filesystem 1K-blocks Used Avail
Capacity Mounted on
/dev/label/usr0 35177228 9343812 23019240
29% /usr
[darrel@pcbsd-2626] ~->
```

The 40 GiB disk is already using 16.87 GiB. This is for a KDE 4 desktop and four user installed applications. There are practically no data files in my home directory. And none are of any consequential size.

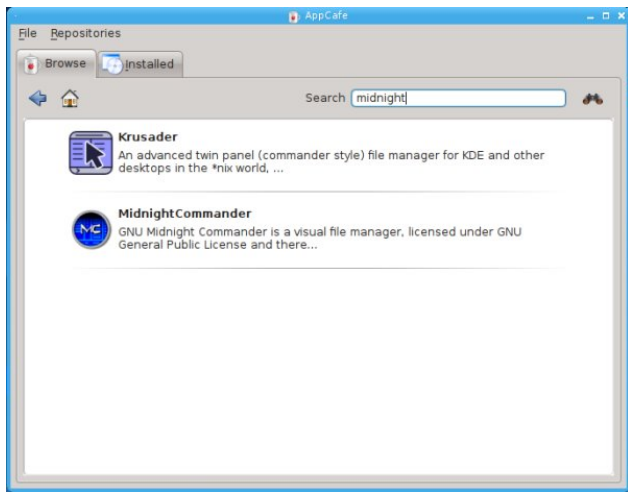
You may have noticed a /usr/pbi directory. It holds any user-installed PBIs. A [PBI](#), an acronym for PC-BSD installer, or Push Button installer, is a format unique to PC-BSD. It is a self-contained package with all files and libraries necessary for an installed program to function correctly. Any program dependencies are included in the package. Previously, this arrangement could end up with duplicated files all over the system. Beginning with PC-BSD version 9.0, under [Dru Lavigne's stewardship](#), there are now checks in place to ensure that files are not duplicated when installing PBIs. Previously, users could download PBIs from the [pbiDIR](#) site and install them locally. With PC-BSD version 9.0, all PBIs must be installed from PC-BSD's AppCafe desktop application.

Because PC-BSD is catering primarily to the desktop user, they created the PBI format, along with a simple method of installing these packages. Click the PC-BSD menu button on the KDE panel and select System > AppCafe. The main program window is shown in the next page.





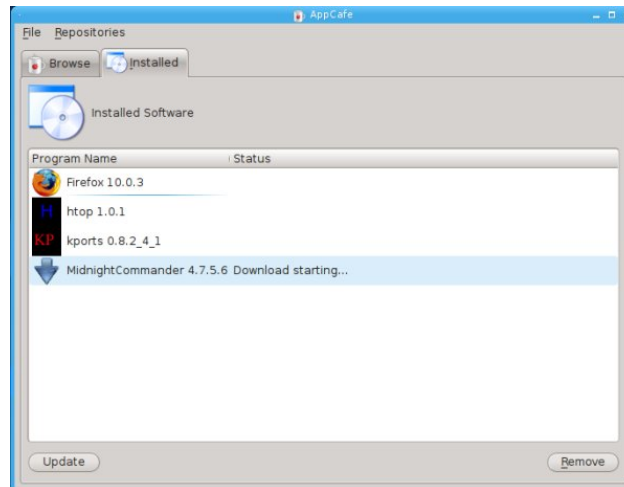
You can select an Application Category by clicking on one, then scroll through all the selections. There are a lot of categories and many, many more program selections. If you already know the name of the program you want to install, simply type it into the search window. Oddly enough, entering `mc` does not bring up the program. But, entering `midnight` does.



Click the Midnight Commander icon (top center).



A summary of the program is shown. To install, simply click the Download arrow. You will get a dialog window asking if you want to download and install the program. After answering Yes, download and installation progress will be shown in the Installed tab of the AppCafe window.



The ports tree is the traditional BSD method of installing binary packages. KPorts is a PBI I installed in order to use a GUI to access program ports. The PBI description reads:

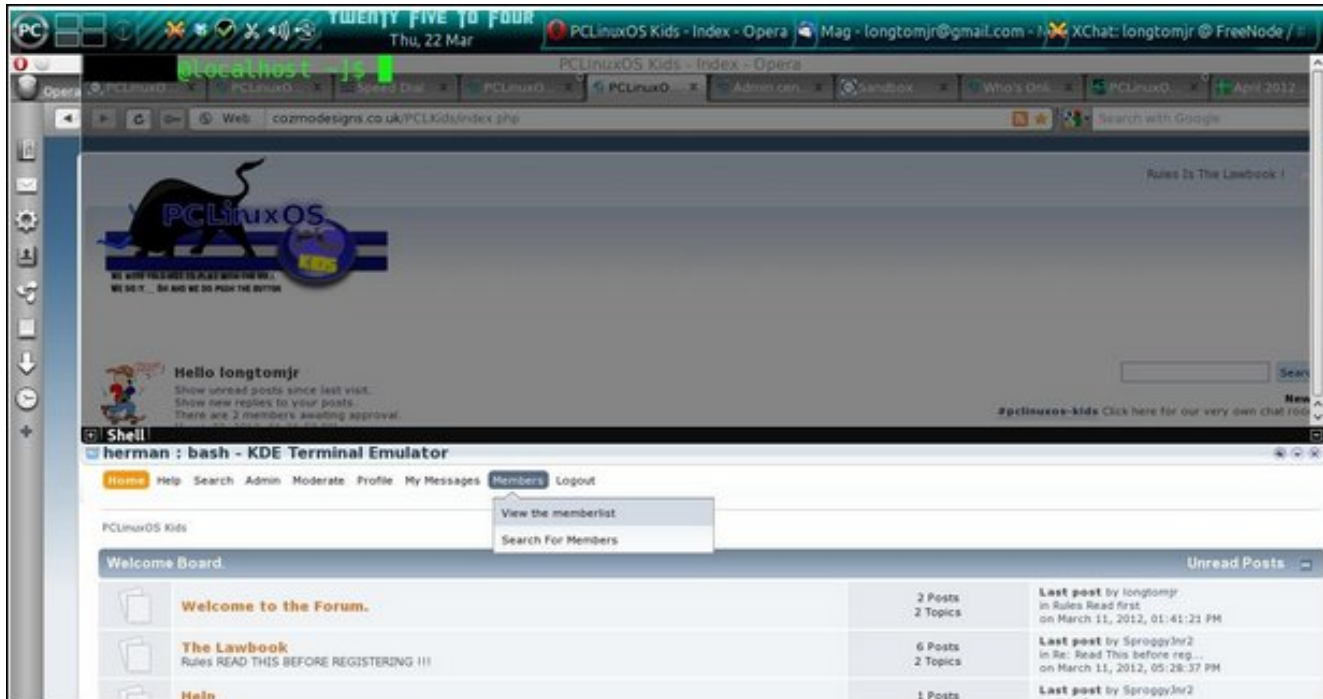
*KPorts is KDE-Frontend to the FreeBSD-Ports and in future also to the OpenBsd-Ports, PkgSrc and maybe others. You can browse and search through your Portstree and perform actions like Upgrades, Installs, Uninstall a.s.o. More advanced features like setting Options and Vulnerability checking are also available. For a complete list, check the Homepage or the Changelog. Functionality is KPorts!' main goal, not simplification by reducing options however KPorts should be rather easy to use. A new version of KPorts based on completely new code and Qt4 is available @ /usr/ports/ports-mgmt/kports-qt4 NOTE that the new version cannot yet compete with this version feature-wise.*

I wanted to include the use of KPorts in this article. Unfortunately, every method I've used so far fails to launch the program. Neither `kdesu kports` nor `kdesu dbus-launch kports` works. The program window appears on the desktop for about one second, then disappears. I get no clues from the error messages in the console window as to what the problem is. Running the program as user root doesn't work, either. Entering just `kports` in the terminal window tells me I need to be root to run it. However, the PBI description states: **"Requires Root: NO"**

The next and last article on PC-BSD will show how to use the ports tree to install and update programs. If KPorts GUI is still not working by then, I'll cover using the traditional CLI methods.



# A Short Review: Yakuake



by longtomjr

This is a nice little drop-down terminal for Linux. It is very useful. When I press F12, it drops down from the top of the screen. I can kill a program, or when I do some Python I can use it as a python shell. This will be also useful for the people who are doing bash and packaging.

It also has a nice soft appeal to the eye and with some other themes and a transparent window, I think this is a very useful tool.

Change your Linux experience forever, and get Yakuake.





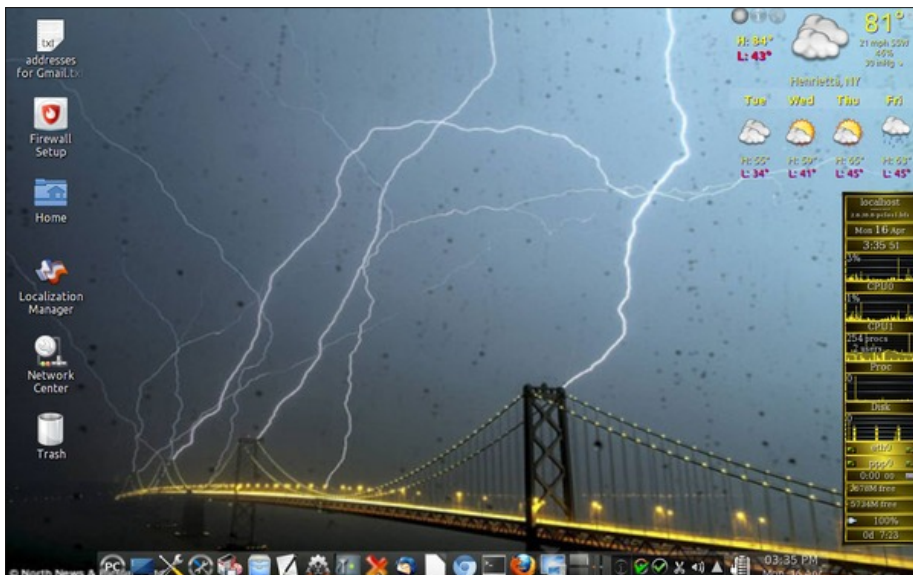
# More Screenshot Showcase



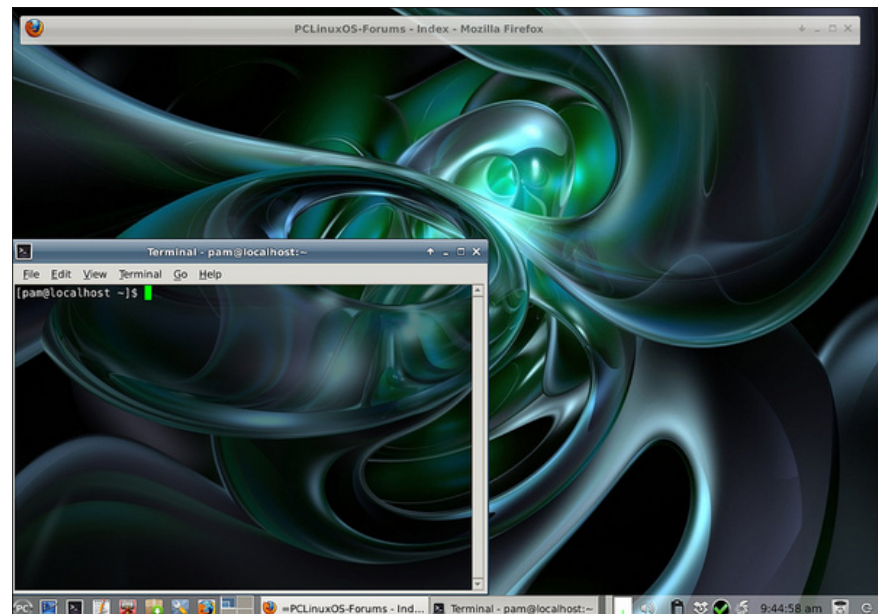
Posted by lkj, April 24, 2012, running LXDE.



Posted by briliz, April 2, 2012, running Openbox.



Posted by smileeb, April 16, 2012, running KDE4.



Posted by Meemaw, April 26, 2012, running Xfce.





A<sub>1</sub>  
R<sub>1</sub>  
P<sub>3</sub> C<sub>3</sub> L<sub>1</sub> O<sub>1</sub> S<sub>1</sub>  
H<sub>4</sub>  
F<sub>4</sub> R<sub>1</sub> I<sub>1</sub> E<sub>1</sub> N<sub>1</sub> D<sub>4</sub>  
O<sub>1</sub> E<sub>1</sub>  
R<sub>1</sub>  
U<sub>1</sub>  
M<sub>3</sub>

# 2012

## May

Sun	Mon	Tue	Wed	Thu	Fri	Sat
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		