

The

# PCLinuxOS magazine

Volume 62

March, 2012



**Gnome 2.32: GList & GNote**

**Gnome 2.32:  
Customize Your Menu**

**Gnome 2.32:  
Shutter Shoots Screenies**

**Magnet Links: The New  
BitTorrent Approach**

**xdg-open: Making Life Easier**

**Marching On: Leiche Becomes  
New LXDE Maintainer**

**PCLinuxOS Live USB Creator 0.9.7**

**A New Web Browser &  
Search Engine**

**Alternate OS: OpenIndiana, Part 2**

**Linux Financial Apps: HomeBank**

**Access Denied:  
Procon Latte Content Filter**

**Forum Foibles**

**Testimonial: My Second  
PCLinuxOS Convert**

**And more inside!**



# Welcome From The Chief Editor

## Update! Update! Update!

No. This doesn't mean a news flash. Instead, this is a not-so-gentle reminder for everyone to run updates on their system. By now, I'm sure that many of you realize that there are new Live CD releases of most of the different "flavors" of PCLinuxOS, coming with your choice of your favorite desktop environment, all set up and ready to go. Of course, if you've kept your installation updated regularly, you already have the "latest and greatest" of PCLinuxOS, and you won't have to reinstall. The thing about a rolling release is that the user has to take responsibility and update their system periodically.

Without those regular updates, it's nearly impossible to provide a stable upgrade path. After a while, many things may have changed, been updated, or been upgraded. It's not even reasonable to expect that an upgrade path exists when you haven't applied the previous three (or 20) upgrades. If you've not been in the habit of regularly updating your system, it might be a good time to consider reinstalling. Fortunately, a reinstallation of PCLinuxOS on today's modern computers with multiple processor cores usually takes less than 30 minutes.

So how often should you apply updates? Without a doubt, there are some PCLinuxOS users who apply updates to their system daily. They feel that it keeps their system in tip-top shape, and it keeps them on the front edge of what's happening with PCLinuxOS. Reasonably though, you probably should apply updates either weekly or biweekly. That should be frequent enough to keep your system in excellent shape and condition. While every two weeks should be the absolute maximum amount of time to elapse between updates, there are folks at the other end of the spectrum who only update their systems once a month. However, updating only once a month increases the chances of

forgetting to apply updates during one month, which means that the next month, when (if?) you remember, you now have two months of updates to apply – which greatly increases the chance of something borking your installation.

I usually recommend, especially to new users, that they pick a day of the week (associating it with their favorite TV show usually works well) and that they should run updates on that day, every week. So, when they see a NEW episode of Law & Order come on (presuming they are a Law & Order fan), they should also think about keeping their PCLinuxOS installation in "good order." Then, if they forget one week (or Law & Order gets pre-empted by some other inane "special" broadcast), they can do it the next week, and no more than two weeks has gone by between updates.

I'm also sure most folks have heard that Texstar has, on the advice of his doctors, stepped back from the intense day-to-day work on PCLinuxOS. For many months, Texstar had thrown himself into packaging a separate 64 bit PCLinuxOS repository (all the applications - more than 12,000 of them - have to be rebuilt for a 64 bit version). Over that time, he ran out of "go-go" juice, to use his words. Neal has taken over the packaging and development reigns, while Old-Polack is giving the forum and PCLinuxOS web site his ever-vigilant eye and care. Texstar hasn't gone away. He is still lurking about (he's even still posting periodically in the forum), keeping a watchful eye on the proceedings, but from a more distant vantage point. With Neal and Old-Polack tending to PCLinuxOS, Texstar's baby (PCLinuxOS) is in safe, responsible and good hands.

That's about it for this time around the bend. Until next month, I wish each of you peace, serenity, happiness and prosperity.



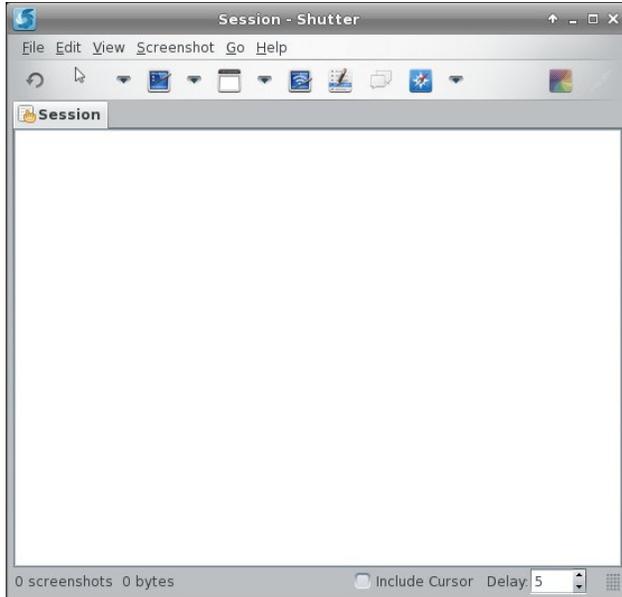
# Gnome 2.32: Shutter Shoots Screenies

by Meemaw

We've seen Shutter before. Some of us use it as a simple photo editing program, and it works very well. We even covered it in the Photo Viewer series in this magazine earlier in the year.

Did you know that it also takes screenshots?

When you open Shutter, you get the main window:



The tab that's there already is the Session tab. As you open images or take screenshots, a thumbnail of each will appear on the Session tab. The tools are, left to right: Redo last screenshot, Selection Tool, Desktop screenshot, Window screenshot,

Selection screenshot, Menu screenshot, Tooltip capture, Website capture, Edit and Upload. At the bottom, you will see dimensions and file size of any screenshot you have taken or image you have opened, and two extra choices for your screenshot: whether or not to include the cursor, and the number of seconds to delay before your screenshot is taken.

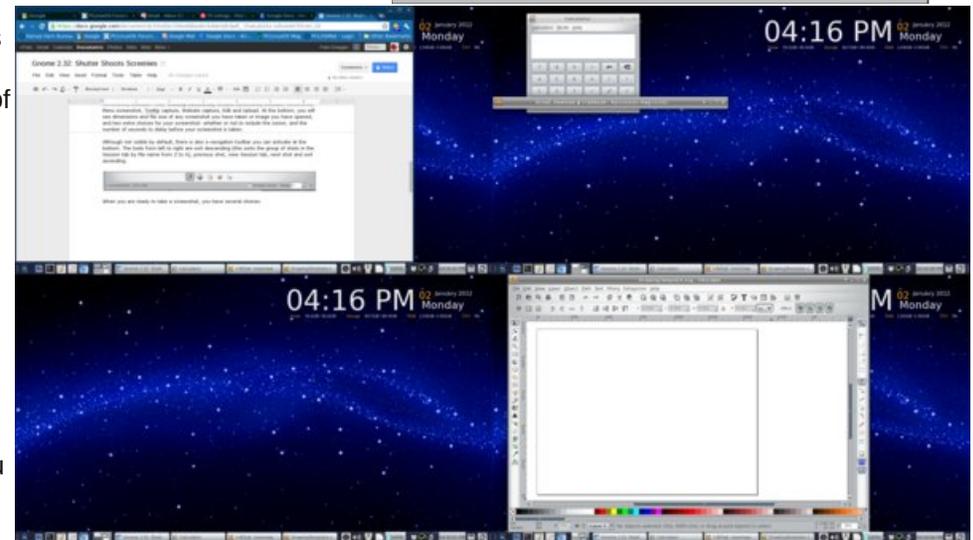
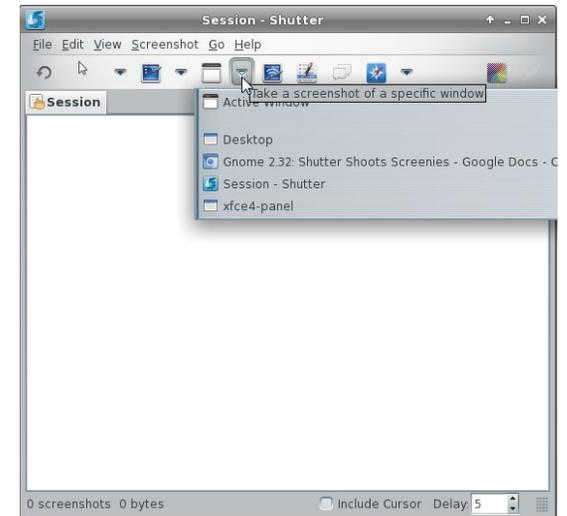
Although not visible by default, there is also a navigation toolbar you can activate at the bottom. The tools from left to right are sort descending (this sorts the group of shots in the Session tab by file name from Z to A), previous shot, view Session tab, next shot and sort ascending.



When you are ready to take a screenshot, you have several choices. Using the window tool, you can take a screenshot of any of your desktops (Shutter calls them workspaces) or all of them in order. If you do all of them, Shutter will save all the shots in one file. This is a screenshot of my four laptop workspaces.

Your second choice is to take a screenshot of any window you have open. If you are trying for a specific window, the drop down arrow next to the window tool will list the windows you have open so you can choose the one you want.

That way you won't have to crop a screenshot down to just one window. This is how I have taken most of my screenies for magazine articles.



Your next choice is to capture a section of a window.... I honestly haven't figured this out, since I can't seem to take a screenie of anything but a single window with it. If I drag my cursor across it, then press Enter or click with my mouse, I don't get the section of the window that I seemingly outlined, but the whole window. If you want to take a screenie of your panel instead of your whole desktop, it works fine.

You can also capture a drop down menu, tooltip or a website shot from Shutter using the next 3 buttons. Make sure you have set a delay for the drop down or tooltip to give yourself time to access them.

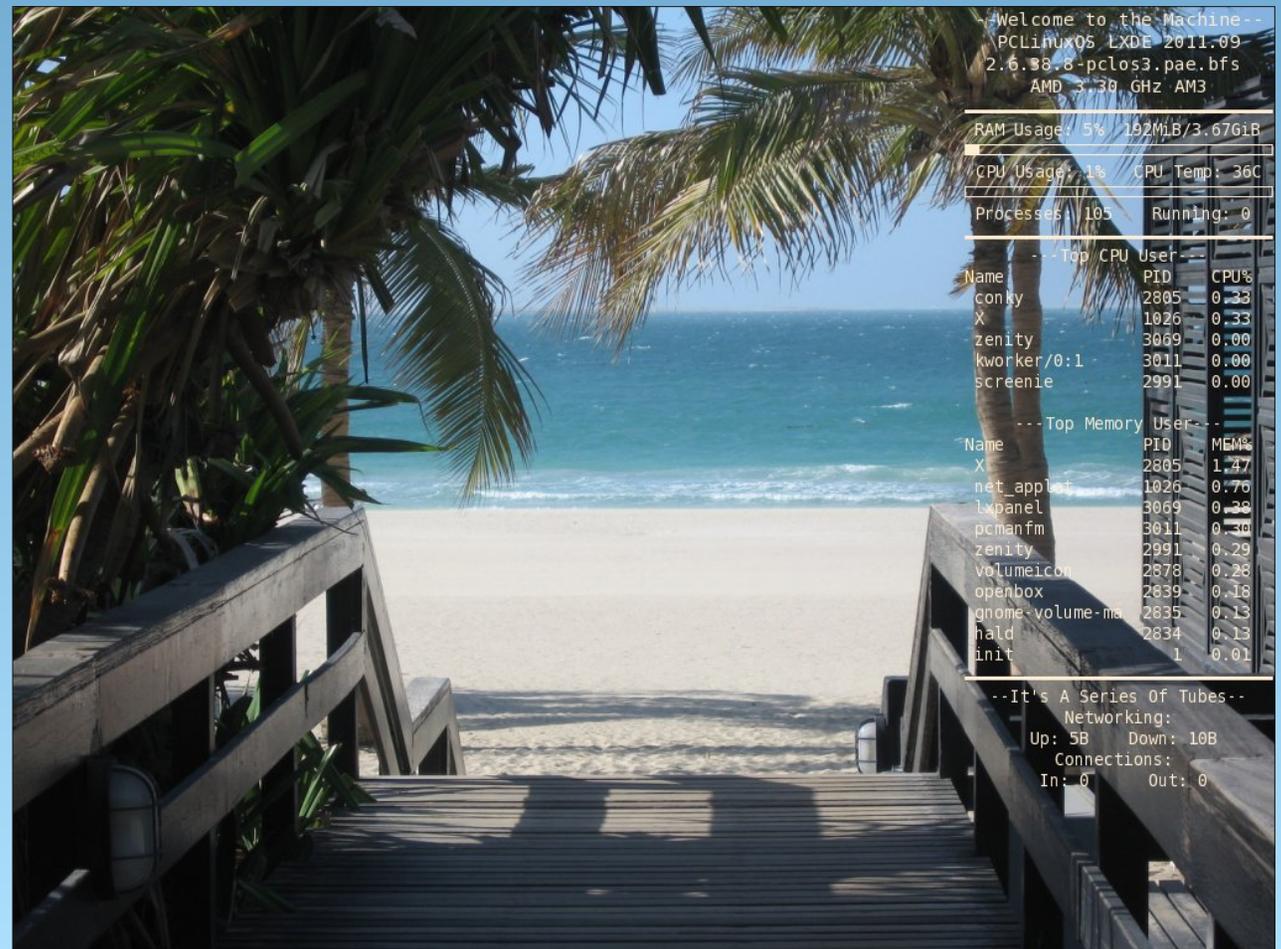
I covered Shutter in the photo editing series I did last year. The colored icon at the right side of the main Shutter screen is the editing tool. It will open your active shot in a larger window, and you can crop or edit it there This is very handy if you have taken a screenie, but decide you want a smaller area than what you shot, or want to add something to the screenie (text, lines, geometric figures or an indicator of some sort).

**Managing My Data Center.**

- Flexible
- Reliable
- Secure
- On-Demand Computing
- ...delivered in a win/win relationship

**EN\*KI** The Computing Utility™ [www.enkiconsulting.net](http://www.enkiconsulting.net)

# Screenshot Showcase



Posted by weirdwolf, February 3, 2012, running LXDE.

# xdg-open: Making Life Easier

by Paul Arnote (parnote)

February 23, 2012. It was early morning, and still dark outside. I was sitting down at my computer, preparing to lay out the March issue of The PCLinuxOS Magazine. As always, my first task is to check my email. I subscribe to the TechRepublic blogs, and one item caught my attention in their “Windows Desktop” email. The headline read “Add Google Docs to the Windows 7 New menu,” and the article went on to talk about how, with a simple Windows Registry hack, you could add a quick-access menu item to the Windows menu to access your Google Docs account.

Now I know that many computer users today shun using Google products, due to privacy concerns. But this magazine uses Google Docs as the primary vehicle to share magazine articles for editing among the magazine staff. Quite simply, there’s not much else out there that works for distance-based document collaboration and editing, at least that I’ve found. Plus, if Google wants to spy on The PCLinuxOS Magazine to see what we are up to, I say go ahead. I’m all for anything that gives PCLinuxOS more exposure and publicity. We have nothing to hide, even from the prying eyes of Google.

It – the TechRepublic headline and story lead – got me thinking about how easy it would be to create something similar in PCLinuxOS. I run the latest version of Phoenix, the PCLinuxOS version of the Xfce desktop, on my desktop computer. You might (or might not) be surprised at how easy it is to do

under PCLinuxOS. The entire process is made simple by one little command: **xdg-open**.

Using the xdg-open command, I was able to create a custom launcher on my Xfce panel that, when clicked, opens Google Docs in my default web browser. The xdg-open command is a powerful little command that can save you a lot of trouble.

Basically, xdg-open takes a file name – or a qualified Internet URI – and opens the file using the default application that is associated with that type of file. We’ll talk more about this in a bit. First, here’s how I created my launcher for Google Docs on my top Xfce panel. The process is similar in other desktop environments, such as LXDE or e17. However, since I am using Xfce on this particular computer, the instructions below will be somewhat specific to Xfce. It won’t (shouldn’t) differ significantly under other DES, however.

## Step 1: Add the launcher to the panel

Under Xfce, right click on the panel you want to add the launcher to, and select Panel > Add New Items... from the context menu that pops up.

Select “Launcher” at the top of the list, and select the “Add” button at the bottom of the window. Another window will open asking you to select which panel you want to add the launcher to. Panel 0 is the top panel, and Panel 1 is the bottom panel. After selecting which panel to add your new launcher to, click on the “Add” button in the second window.



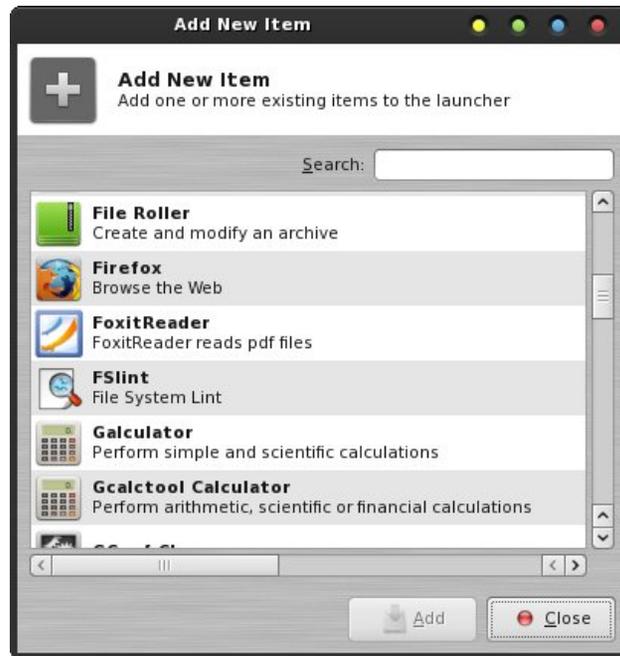
This will add your launcher to the selected panel. Under Xfce 4.8.x, the launcher is added at the far right edge of the selected panel. Right click on the launcher, and select “Move” from the context menu. Then, just drag the launcher to the location you want it to appear at on your panel.

**Step 2: Pick an application, any application**

Next, you will want to right click on the new launcher, and select “Properties.” Below is how the “Properties” dialog box looks for your new launcher, before you’ve selected the properties for your new launcher.



Along the right side of the Launcher dialog box, you will see six buttons arranged in a vertical row. Select the third one, to add a new application to the Launcher list. You will see a new dialog box appear, with all of the installed applications on your system.



Literally, just pick an application – any application. We’re going to change it anyway. Once you’ve clicked on one of the applications in the list, click on the now-activated “Add” button. I selected Firefox from the list, and below is how my Launcher “Properties” box looks after adding Firefox. I could have picked any other application from the list, however.

**Step 3: Edit the launcher**

Now, remember that we are creating a launcher specifically to open Google Docs. Since Google

Docs isn’t in our list of installed applications, we will want to edit the entry in the Launcher Properties dialog box. This is why I said pick an application – any application – from the list of installed applications. Click on the sixth (and last) button in the vertical row of buttons on the right. This will open a dialog box where you can edit the properties of your new launcher.



Make the following edits to your launcher:



Name: Google Docs  
 Comment: Create/share documents online  
 Command: xdg-open http://docs.google.com  
 Working Directory: /Documents (optional)

Next, click on the icon displayed in the middle of the dialog box. For me, that is the Firefox icon. Select a new icon for your Google Docs launcher. From the drop down list at the very top of the window, choose "All Icons" so you can see all the installed icons on your computer. Find the icon you want to use (I chose the "google-chrome" icon, since it's easily recognizable as a Google product), click

on it, and select OK at the lower right corner of the dialog box.

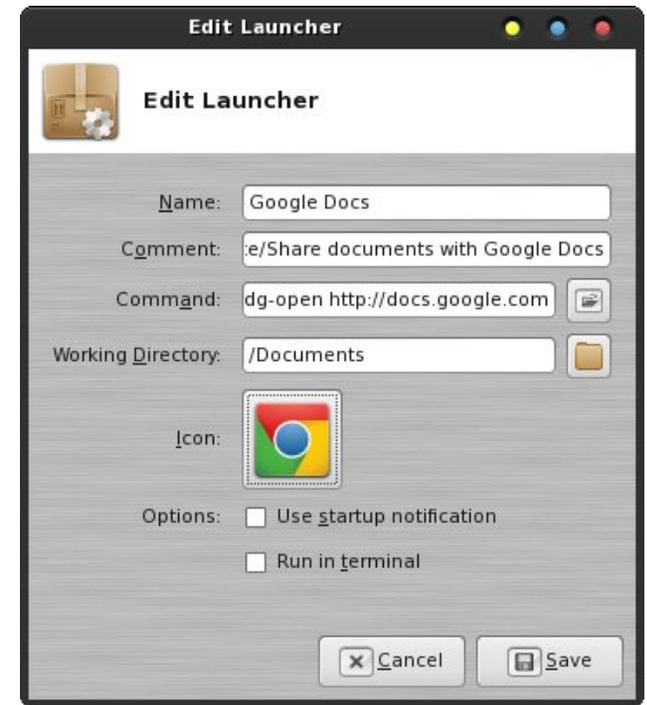


After all of your edits, your dialog box should look something like the one on the right.

Click on the "Save" button at the lower right corner to finalize your new launcher. Now, whenever you click on that icon on your panel, Google Docs will open in your default web browser – whatever that happens to be. For what it's worth, that default (for me) happens to be Firefox.

### A little more about xdg-open

You can use xdg-open for more than just automagically launching your favorite web sites in your default web browser. Xdg-open uses file type associations to open files in the associated default application.



For example, typing `xdg-open ~/Documents/old-settler-beans.pdf` on the command line will cause the specified PDF file to open in your default PDF viewer. Typing `xdg-open ~/Documents/my-resume-2011.doc` will cause the specified document file to open in your default word processing application. Typing `xdg-open ~/Documents/my-list.txt` will cause the specified text file to open in your default text editor. Typing `xdg-open ~/Pictures/AuntSuzie.jpg` will cause Aunt Suzie's picture to open in the default application associated with JPG file. I'm sure you get the idea here.

Being a command line utility, xdg-open doesn't deal very well with spaces in file names, which, although allowed, shouldn't be used in Linux file names for this very reason. However, there are many users who do include spaces in file names, and dealing with those files is actually quite easy. Let's suppose that, in one of the previous examples, your text file was named "my list.txt," instead of "my-list.txt." If you try to type `xdg-open ~/Documents/my list.txt`, xdg-open will fail and exit with an error, due to the space. However, if I type `xdg-open ~/Documents/"my list.txt"` and place the offending file name with spaces in it in quotes, all will be well and xdg-open will open the file in your default text editor.

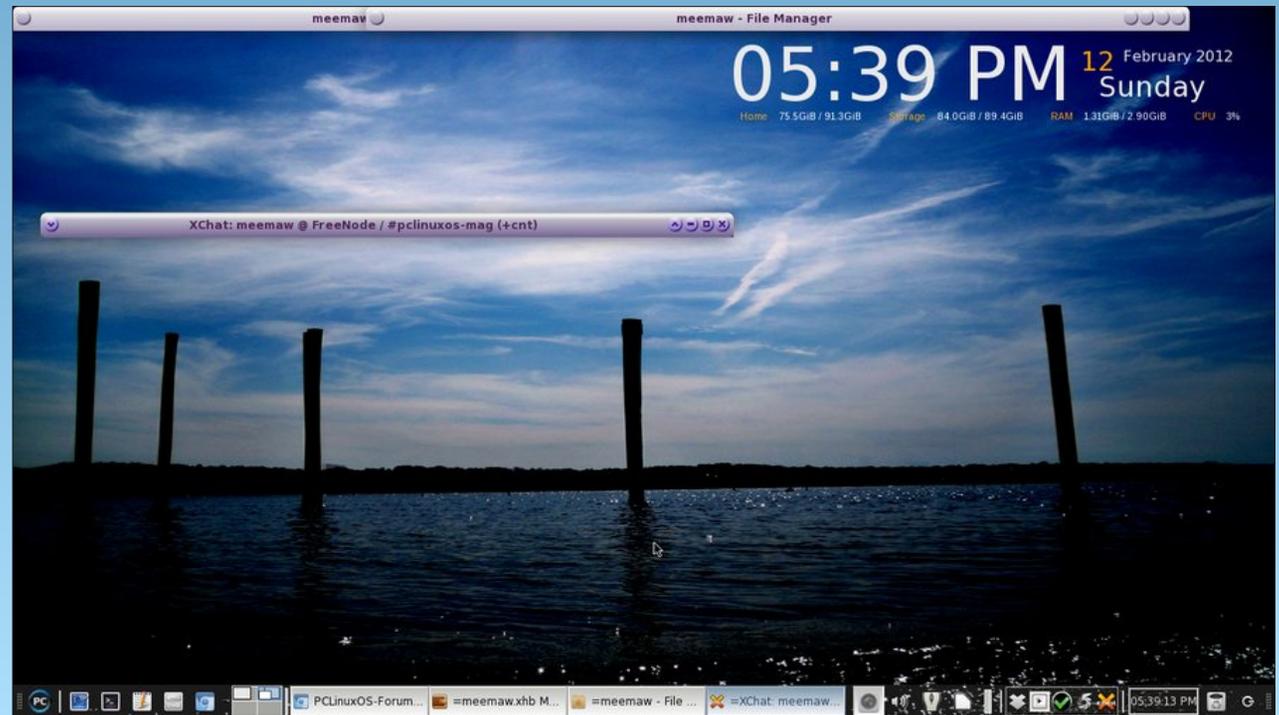
### Summary

As you can see, the xdg-open command can be a very powerful little tool. If you have a document file you frequently refer to, xdg-open makes it very easy to access that file with only one click of your mouse. If you have a web site you frequent, xdg-open provides access to that web site with only one click of your mouse.

Who needs a registry hack? We don't need no stinking registry hacks. It makes me proud to be a Linux user.



## Screenshot Showcase



Posted by Meemaw, February 15, 2012, running Xfce.



# ms\_meme's Nook: Linux Trail

## LINUX TRAIL

I was booting that old Windows  
And moving just like a snail  
When I rode to the PCLOS Forum  
Along the Linux Trail

I downloaded a new ISO  
Users said it would never fail  
Now the Sandbox is my bunkhouse  
Along the Linux Trail



MP3  
OGG

I love to lie and listen to the stories  
And hang out with Tux at the bar  
Hear those legends and epic tales  
About our hero Texstar

What do you know his fame is spreading  
PCLOS will always prevail  
Time for you to join our forum  
And ride the Linux Trail

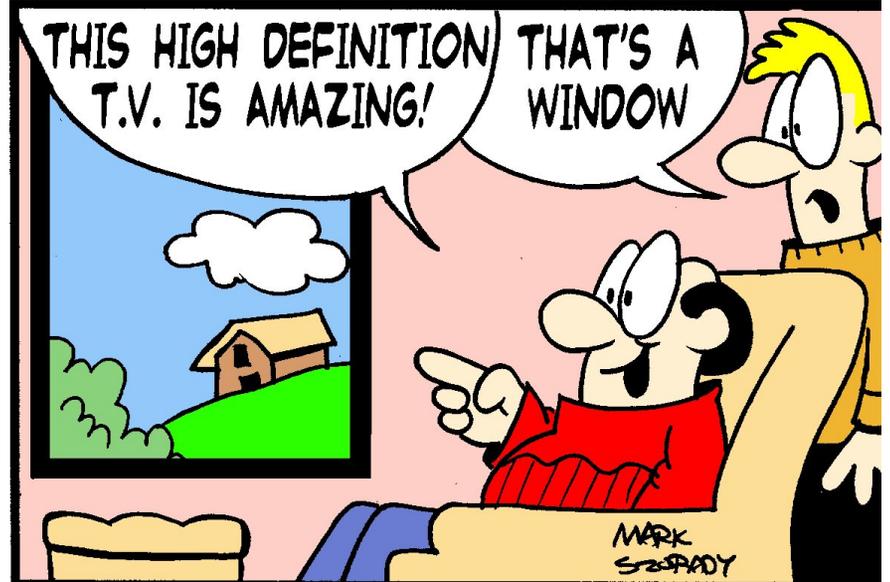
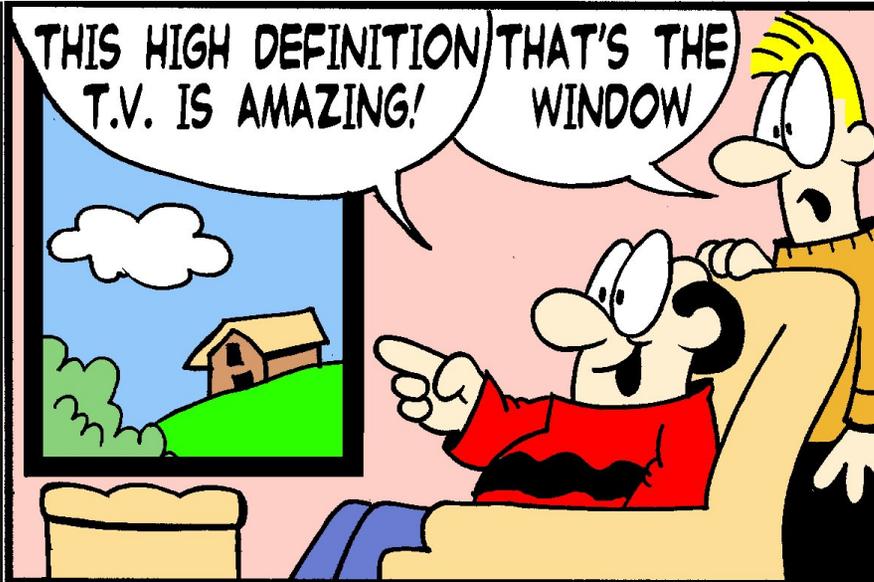
Time for you to download that ISO  
And ride the Linux Trail



# Double Take & Mark's Quick Gimp Tip

## Double Take

by Mark Szorady



Find at least seven differences between cartoons.

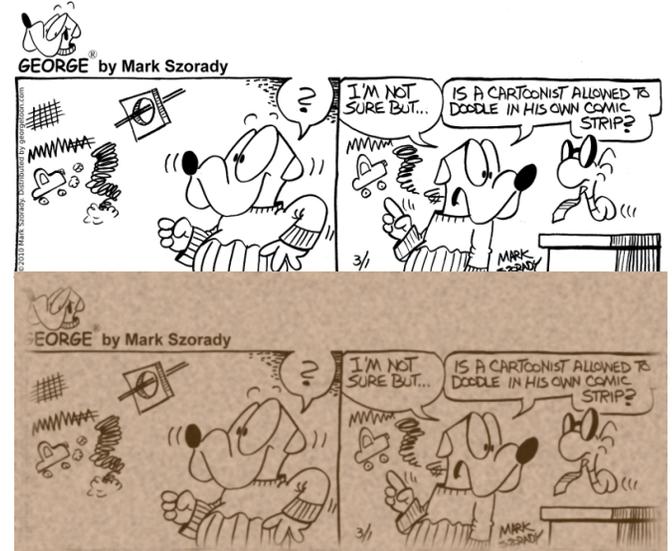
[Answers on Page 35.](#)

## Mark's Quick Gimp Tip



When I first started using graphics applications, I was simply amazed by the “one-click” effects that came pre-installed. Need a border on the image? Click. Want a texture on the image? Click. Want a lighting effect? Click. And the program would do the rest. Well, the same is true of [the Gimp](#). I've talked about some of the available filter effects before, but it's worth pointing out a few favorites that you simply might miss. These are easy to overlook because so much is packed into Gimp! I recently stumbled on the “Old Photo” filter. It's located at

**Filters>Decor>Old Photo.** When selected for a photo/image, a dialog comes up allowing you to make a few changes (if you wish). Simply click “OK” and the filter does the rest. At right is a before and after of my comic strip George. As you can see, the Old Photo filter gives my comic strip the look of having been found in an old newspaper from 50 years ago. So, when editing a photo in Gimp, slow down and give each of the filters a look and a test run. You'll be surprised how many there are and how they can enhance the image you're editing.



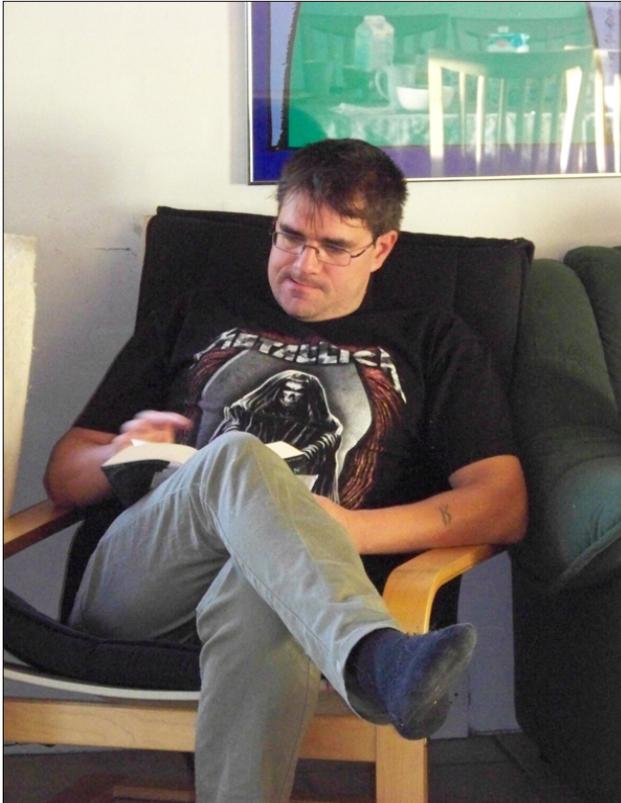
-Mark Szorady is a nationally syndicated cartoonist with [georgetoon.com](#). He blogs at [georgetoon.com/blog](#). Email Mark at [georgetoon@gmail.com](#).

# Leiche Becomes New LXDE Maintainer

by Darrel Johnston (djohnston)

### How did you become Neal's successor as the maintainer of LXDE?

I got a request from Neal. He said that my knowledge of LXDE made me the most logical choice. In Neal's words: "Beyond those things, I trust you with 'my baby,' PCLinuxOS-LXDE." I asked him, "How do I create an ISO?", and he taught me.



### What is it about LXDE that attracts you?

LXDE is simple and lightweight. It works well with any programs that I can install. You often need to use a text editor to configure the LXDE-Desktop. Looking ahead, and thinking about how many more people will be using it, more applications will be written especially for LXDE.

### What tools have you written for use with LXDE?

As an extra tool for LXDE, and from an idea by parnote, I wrote LXautostart. All other programs or tools were written as a result of suggestions, or because I wanted to write it. Sleptimer was written because of an issue from pclxd3os on the PCLinuxOS forum, and I was asked what would be needed to write it.

This was my thinking:

a little question...

What is needed for an automic shutdown program?

Maybe two scripts...

First script, for shutdown

```
#!/bin/bash
dbus-send --system --print-reply
--dest="org.freedesktop.Hal"
/org/freedesktop/Hal/devices/computer
org.freedesktop.Hal.Device.SystemPowerManag
ement.Shutdown
```

Second script

A script where the number of minutes to wait before shutting down the computer can be entered ...

When it's needed, I can create a little app for that...

The latest creations, (LXtemp, LXuptime, XSearch), were suggestions from Neal. Screenie was written by Neal, and I added some things. LXTemp was a group effort in cooperation with Neal, ghostbunny, and me. Ghostbunny had written most of the code. One evening I was watching a DVD on my laptop, and it switched to a black screen with the monitor offline. That was when I started looking at how to stop the computer from turning off the monitor. In our repo is Caffeine, a good application, but it needs a lot of resources. So I wrote LXdpms.

### What other packages have you contributed to PCLinuxOS?

I don't know. If an update is available for a package in the repository, I try to package it. I keep a close eye on mediainfo and dvdstyler, but I try to do other packages, too. When I have problems, I ask the maintainer, or our other packagers. And we find a solution.

### What motivated you to become a packager for PCLinuxOS?

My first, ahhh, second script was systeminfo, and I was thinking this is exactly what is needed for us



*On holiday in Denmark.*

noobs. I asked maik3531 for help, and he taught me how to build my first package. Thank you, maik3531. My first script was saa713x, and it was designed to

capture video from my tv card. My mentor on this was flux. He helped me with my first steps in shell scripting. Thank you, flux.

**You indicated that you issued another ISO because it had been three months since the last one? Do you intend to stick to a three month schedule?**

Yes, that's right. Our latest LXDE ISO is 2012.01, and before that it was 2011.09. Whether or not I can create a new ISO every three months, I cannot say. If it is needed, I will create a new ISO.

**Out of all of the desktop environments available, what role do you see LXDE fulfilling?**

Fulfilling? I like it simple, and LXDE is simple and lightweight.

**Do you have any plans for more special additions to LXDE?**

I don't know, let's see what the future brings. If something is needed, I will add it.

**What is your given name?**

Daniel Meiß-Wilhelm. Of course, I go by Leiche on the forum.

Advertisement





*Left: Playing miniature golf.*

### **What do you like to do to have fun or just relax?**

In the summer, I like to ride my bike. I like to experiment with some scripts, and read topics in our forum. In the winter, I just relax and watch TV, or listen to music. I know I should be more active in sports, but I lack motivation.

### **Do you still play in the Die Kellerleichen band?**

No, Kellerleichen band is really dead.

### **Is there anything else you'd like to share?**

What else can I share? What I have created is in our repositories. Music - see my last answer. We all can help to move PCLinuxOS forward. This is the beauty of a community that cares.

### **What is your profession?**

Since 01 August 1992 I have been working for the MAN company in a truck workshop. My main area is electrical systems.

### **Are you married?**

Yes, I am. Over 10 years now. We have two children, a girl, and a boy. And we have a cat.



**The NEW  
PCLinuxOS  
Magazine**

**Created with  
Scribus 1.3.9**

# Gnome 2.32: Customize Your Menu

by Paul Arnote (parnote)

As you might imagine, since Gnome is one of the two most popular desktop environments for Linux, there are a lot of applications that allow you to tailor Gnome to better reflect how you work with it. The ability to customize your Gnome menu is no exception.

## Stock Gnome Menu

Before I go showing you custom Gnome menu configuration applications, we should first briefly review the layout of the stock Gnome menu. As I previously pointed out when we started the series on Gnome 2.32, a “fresh-out-of-the-box” PCLinuxOS Zen Mini installation does not use the typical Gnome menu and panel layout. In fact, one of the first things I did after installing Zen was to return Gnome 2.32 to

its more usual appearance with two panels and the usual Gnome menu items.

Under the “Applications” entry of the stock Gnome menu, you will find all of your installed applications neatly arranged into the standard menu structure used for PCLinuxOS.

The “Places” menu gives you quick access to a selection of common folders in your home directory. If you want a folder to show up in the places menu, simply drag the folder from the right pane in Nautilus to the lower left pane.

The “System” menu holds the menu entries for governing Gnome’s preferences, tools for administrative tasks, the Gnome Control Center, plus the Gnome about box and options to lock your screen from prying eyes, logging out the current user, or shutting down your session or computer.

## Alacarte

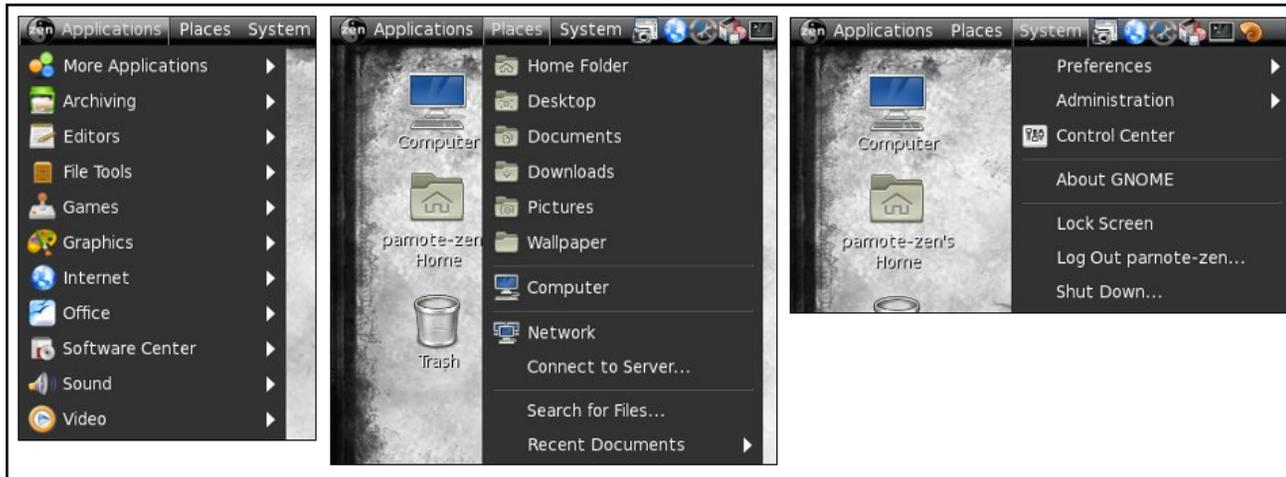
Alacarte is the Gnome menu editor. You can launch it from a terminal session by typing `alacarte &` on the command line, or by selecting the “Main Menu” application from Applications > More Applications > Configuration menu entry.



Gnome’s Alacarte menu editor.

Taking a look at the Alacarte window, it is quickly apparent how easy it is to use. Simply click on a menu item’s check box, checking or clearing the check next to it.

In case you can’t fathom why you might want to edit the Gnome menu, let me provide a possible scenario for you. Say you are setting up a computer that will be used by multiple users. As the administrator, you can go in and remove menu



The stock Gnome menu

entries in the Applications menu that you may want to limit access to. Alternatively, you can use Alacarte to “clean up” the Application menu of items you rarely or never use. In either case, the application is still installed and can be accessed by a knowledgeable user from the command line, but the menu entry can be toggled on or off to suit individual tastes and needs.

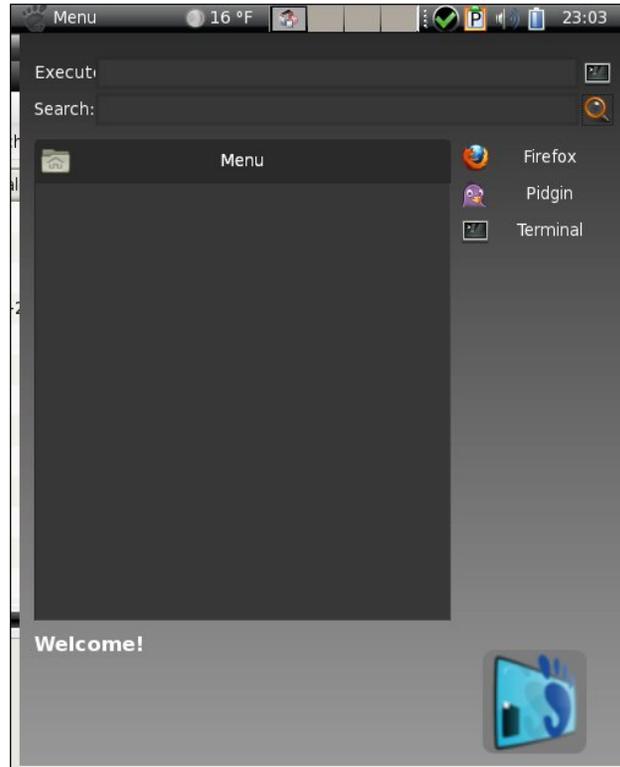
Because Alacarte doesn't pull in a lot of Gnome-specific dependencies, it is also used as the defacto menu editor for Xfce – at the moment. It can also be used to help manage the menu entries in other Linux desktop environments, like LXDE.

## AGM: Advanced Gnome Menu

The Advanced Gnome Menu is a panel plugin written in Gtk+ and Python that is supposed to allow users to create their own custom menu, filled with their most commonly used applications.

Unfortunately, Advanced Gnome Menu hasn't seen active development since 2009, and the web site where you could download all the AGM plug ins is now defunct. While the source code is still available on the opendesktop.org web site (good for anyone who may wish to pick up the development reigns on this), AGM is of very little use without the plug ins.

Also, since Gnome has moved on to the radically different 3.x version, it's doubtful that anyone is likely to resume active development on this promising plug in.



AGM: Advanced Gnome Menu.

## Mint Menu

Named after the Linux distro where it originated, the Mint Menu provides a neat, modern and organized appearance to the traditional Gnome menu that is very easy on the eyes.

Initially, Mint Menu opens to a screen displaying your favorite applications on the right two-thirds of

the screen, while Places and System entries appear in the left one-third of the screen.



Mint Menu main appearance.

Selecting the “All applications” button in the upper right corner of the initial view brings up the view, shown above, that shows all of the application menu entries. They are either all shown, (as in the image below), or you can choose to view each subsection



Mint Menu viewing all applications.

of the Gnome application menu to view the applications by sections.



Mint Menu also exhibits some flexibility regarding how it runs. It can run as a standalone application in a window on your desktop (like above), or you can run it as a panel plug in, which is the most likely way to use Mint Menu.

### Summary

As you can see, Gnome provides several utilities to allow you to customize your Gnome menus. While Gnome has been often criticized for deliberately hiding configuration settings from their end users, it has also opened up the possibilities for additional apps to be written that fit well into the Linux way of doing things: apps that do one thing, and do it well.

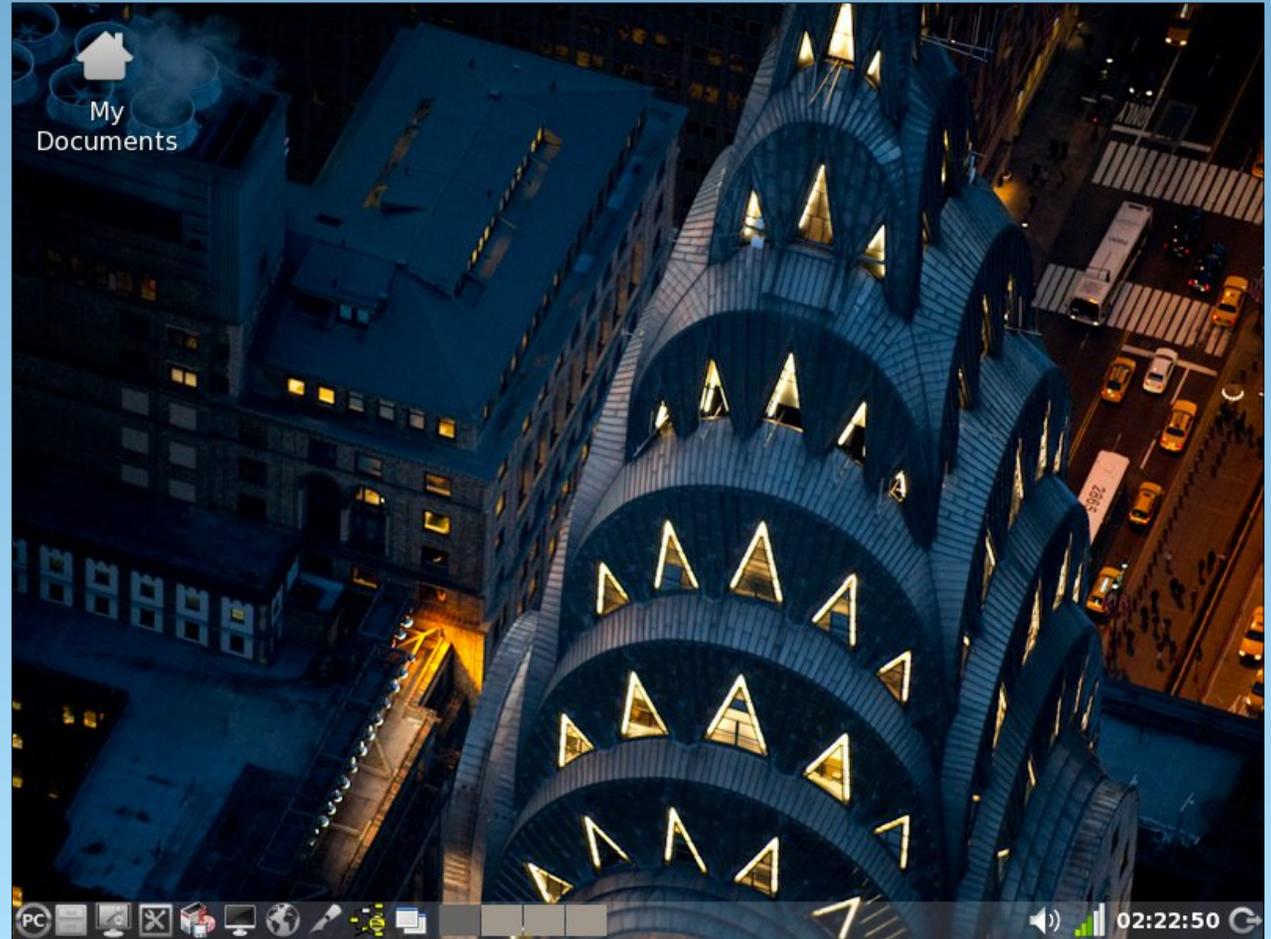


**Visit.  
Contribute.  
Build.**

**The PCLinuxOS  
Knowledge Base**

*It Belongs To YOU!*

## Screenshot Showcase



*Posted by cstrike77, February 7, 2012, running LXDE.*

# Forum Foibles: PCLOS Howdy!

.howdy.howdy.howdy  
thx again for the texas sized welcome,  
everyone. much appreciated.  
jtb2



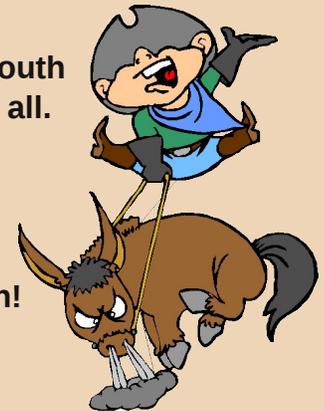
Howdy,  
just making sure I track this thread..  
Thanks!! Linuxera



## Howdy!

Hi, I'm not from the wild west as my subject line might have you to believe, actually from Canada. I'm really happy with PCLOS, but I am a bit new still. I love how either everything works or it is usually easy to fix, and it looks snazzy. I also love all the support, this forum is awesome! Now this isn't a testimonial, I'd just like you guys to know where I stand. Great to be a part of something as Awesome as PCLOS.  
aldendino

Howdy Yaw!  
Seriosly, a big hello from South Texas. A big handshake to all.  
Reboant



Howdy fellow Texan!  
Texstar

Howdy all. Jeddaboy  
Howdy gang! coffeetime  
Howdy Folks. johnnie.nucleo



Howdy Tex!  
Aint talked to you in a while!  
Codnomics



Howdy!

Once my favorite OS, I drifted and I'll confess. Once more, I managed to shoot myself in my foot.

Alfanut

Howdy  
to the PCLinuxOS gang!

Chisum



Howdy.  
LiveUSB is on my horizon.  
nightcap

Allo Allo and Howdy  
GOTHBITES

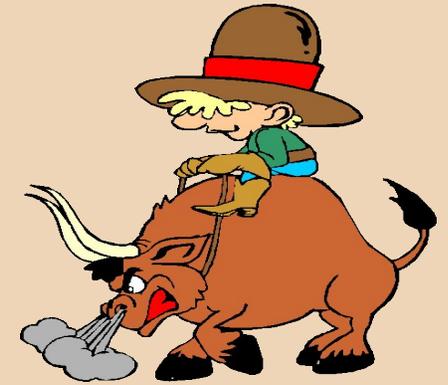


Howdy!

Hello all. I am new to PCLinuxOS. I have been watching on and off for about a year and glad to see it is still going strong.

CharlieB

Howdy, all! pags  
Howdy AndrzejL  
Howdy All Jeff91  
Howdy all. abstract  
Howdy, folks! Xavier  
Howdy! hammerhead



Howdy

Need a little assistance,  
believe I came to the rightspot.

Tactics

Howdy from rural MD, USA  
bosko



Anyways, howdy to all!  
MarkNC!

# A New Web Browser & Search Engine

by Darrel Johnston (djohnston)

Firefox 10 is not exactly new. It is an upgrade from version 9. The Firefox web browser is known for its flexibility, due to the use of addons. Addons add new functions or features not available in the default program. Addons may also enhance some features contained in the default Firefox web browser.

Mozilla has decided to release a “new” Firefox version every six weeks. When the new version is released, the major version number is incremented by one. This action has the potential to render addons inoperable if they are not designated as compatible with the newer release number. It can be frustrating to see your favorite addon disabled because the author has not yet supplied an update. In many cases, the addon is already compatible, but has not been so designated. In some cases, the author has simply not issued any updates to their addon at all.

GoogleSharing 0.22  
by Moxie Marlinspike

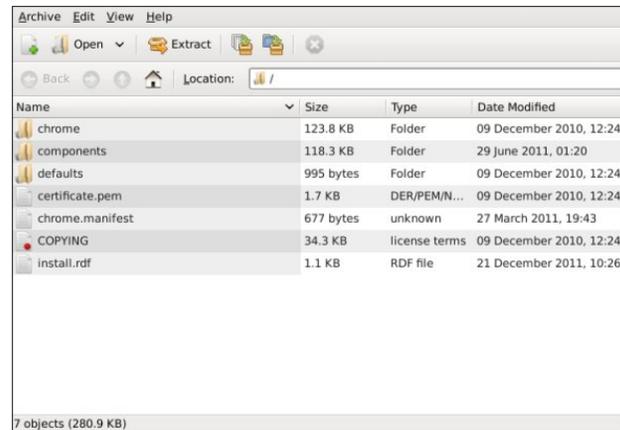
The Firefox Addon for the GoogleSharing system. GoogleSharing ultimately aims to provide a level of anonymity that will prevent google from tracking your searches, movements, and what websites you visit.

[Continue to Download](#) → [Privacy Policy](#)

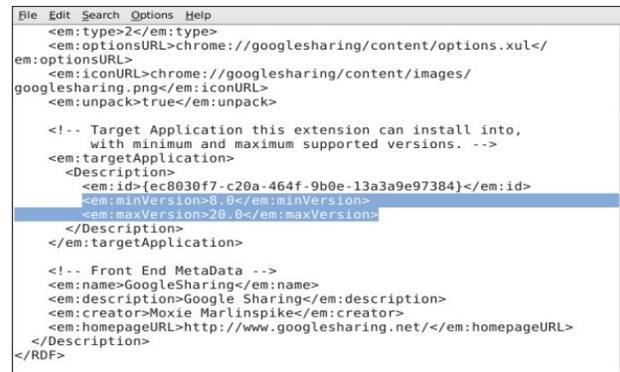
Not available for Firefox 10.0

For addons that are still compatible with the newer Firefox version, there is a simple edit to a file that will insure your favorite addon does not get left behind with the next Firefox major release number. Firefox addons have an xpi file extension. Normally, you would install the addon directly from Mozelle's or the

author's website. However, if you wish to keep an archive of the addon, download the xpi file and save it to your hard drive instead of directly installing it in the browser. The xpi files are actually a zip format. Using fileroller, I can open one whether the extension is zip or xpi.



Each addon includes a file named install.rdf. This is the file we will edit. Again, using fileroller, I can simply double click install.rdf within the fileroller window to open it in a text editor.



The contents are in XML format. We are only concerned with one particular section of the install.rdf file. That section is shown below.

```
<!-- Target Application this extension can install into,
with minimum and maximum supported versions. -->
<em:targetApplication>
<Description>
<em:id>{ec8030f7-c20a-464f-9b0e-
13a3a9e97384}</em:id>
<em:minVersion>8.0</em:minVersion>
<em:maxVersion>20.0</em:maxVersion>
</Description>
</em:targetApplication>
```

The value after the <em:maxVersion> string is the only thing we are concerned with. The value determines what the highest Firefox version number can be for the addon to be considered compatible. For some peace of mind, I have set the version number to 20.0. I can always change this value at a later date. As long as the addon is still working properly, I can continue to have it upgraded automatically with each major Firefox release number. To install the edited xpi file to Firefox initially, first remove it in Firefox's Tools > Add-ons section. Then, right-click the xpi file and select Open with Firefox.

The “new” search engine is only new to me. I have now made it my web browser's default start page. The search engine is called, appropriately enough, [Startpage](#). Startpage was released in 2009 in the United States as a new name for the Ixquick search engine. The Ixquick search engine was developed and launched in 1998 by David Bodnick in New York. Startpage is owned by a privately held



The screenshot shows the Startpage search engine interface. At the top, the logo "start page™" is displayed in red and blue. Below it, the tagline "the world's most private search engine" is shown in blue text. A search bar is present with a green magnifying glass icon and the text "enhanced by Google™" and "Details" to its right. At the bottom, there are links for "Add to Firefox" and "Set as homepage", and a copyright notice "© 2012 - [Privacy](#)".

corporation, Surfboard Holdings, BV, so it is completely independent of outside forces that might seek to exploit user data. Startpage and Ixquick are not affiliated with any national or international organization, corporation, commercial enterprise, government, or intelligence agency. Of course, Startpage would be obligated to comply with legal demands for information from proper government authorities, but because we have no personal information on file, there would be no data to deliver. Maybe that's why Startpage and Ixquick have never been subpoenaed for any user data.

Startpage, and its sister search engine Ixquick, are the only third-party certified search engines in the world that do not record your IP address or track your searches. Startpage abolished the use of Unique ID cookies as of June 6th, 2006. It only uses one anonymous cookie that is used to remember the search preferences you saved for your next visit. The cookie expires after not visiting Startpage for 90 days and is anonymous. A Google cookie called 'PREF' can be set when you use Firefox or Chrome as your browser, regardless of whether you visit google.com or any other site. There is a technical reason why this happens. More information can be found [here](#). One way to prevent this is to disable or

limit the use of cookies. This is something Startpage recommends from a privacy perspective. For Firefox, go to 'Preferences' -> 'Privacy', for Chrome, go to 'Options' -> 'Under the Hood', and disable the cookies.

Startpage does not share your personal information with any third party, including other search engines and the provider of its sponsored results. The "Startpage Proxy" extends the great privacy protections you get from our search engine to cover your browsing activities, too. Our proxy lets you browse third-party websites safely and anonymously, without passing on any private, personally identifiable information. It means you can now surf the web as anonymously as you can search with Startpage. The proxy allows you to view third-party web pages loaded through Startpage's servers. Details on how it works can be found on the "[Startpage Proxy Explained](#)" page.

For the security conscious, these features mean better privacy for the user. Startpage has an extensive [personal settings](#) page.



The graphic features the Twitter logo (a bird) and the word "twitter" in its signature font. Below the logo, the text reads: "Want to keep up on the latest that's going on with PCLinuxOS? Follow PCLinuxOS on Twitter! <http://twitter.com/iluvpclinuxos>".

# Linux Financial Apps: HomeBank

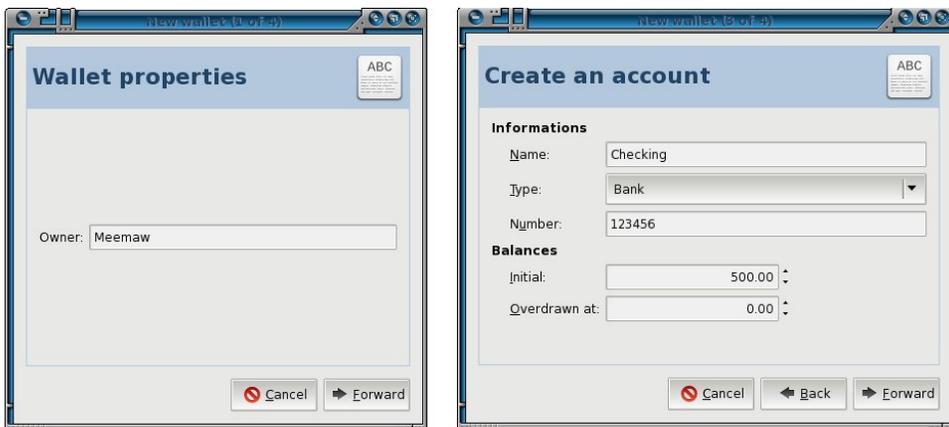
by Meemaw

With the new year, I thought I might start using a Linux financial program to keep track of my budget, so I investigated the programs available. I found nine. Of those nine, only eight are in our repository, and one of those is a command line program. Yet another is, in my opinion, useless. So I am down to six. Over the next few months, I will review these six: HomeBank, iFreeBudget, Money Manager EX, grisbi, gnuCash and kmyMoney. All are in the PCLinuxOS repository.

## HomeBank

The home page is <http://homebank.free.fr/>. It's also available for Mac & Windows. The user manual, in English, is at <http://homebank.free.fr/help/index.html>.

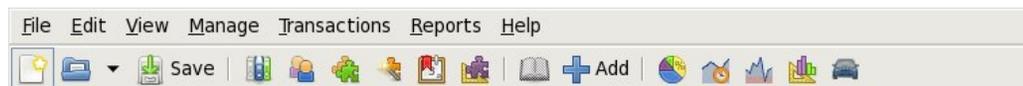
When you start HomeBank, you will be shown an opening dialog window which says 'Create a new Wallet', 'Open an Existing Wallet' or 'Open the Example File'. You want to create a new wallet. This is the file you will open when you work on your finances. You will have four windows, two of which are shown below:



The first window asks you to name your wallet, the second one detects your preferred language in the system (not shown), the third asks you to create an account. Give your account a meaningful name, and indicate what type of

account it is. The choices are bank, cash, asset, credit card and liability. Put in your account number, enter your beginning balance, and if you want a reserve amount in your account at all times, you can enter a number in the 'Overdrawn at' section. The last screen is a confirmation screen. If you wish, you can click the Back arrow and proofread what you entered before you click OK.

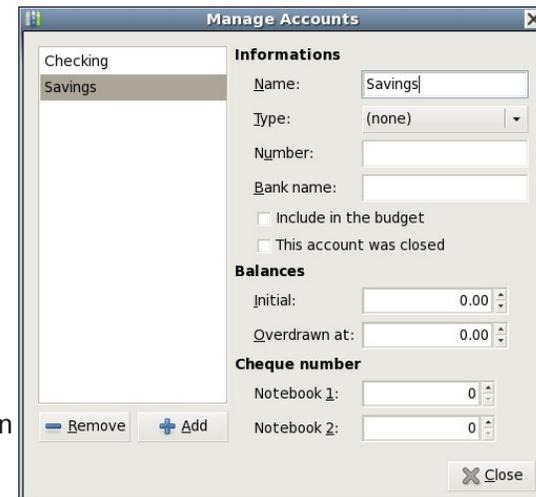
At this point you only have one account in the main screen. Your toolbar will look like this:



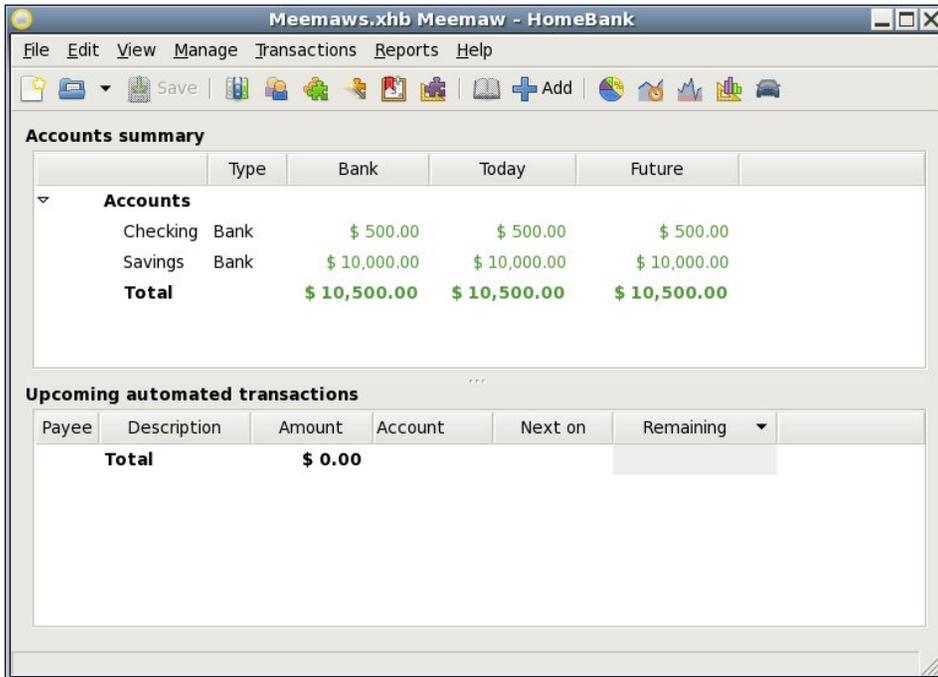
We have New, Open and Save as the first three icons. The next six icons correspond to the entries in the Manage menu (Accounts, Payees, Categories, Assigned Transactions, Archives and Budget). The next two are in the Transactions menu (Show and Add) and the last five are in the Reports menu (Statistics, Trend Time, Balance, Budget and Car Cost).

To add another account, like a savings or credit card, you would click on the Manage Accounts button to the right of the save button, or access it from the Manage menu. The manage accounts screen has the same things that the new account screen has, plus a few more. There are check boxes for 'Include in the Budget' and 'This account was closed', as well as a couple of Check Number boxes. In HomeBank, you can put in your starting check number here, and HomeBank will auto-enter your account number when you enter a check. You will see two of those entries for a couple who has two books of checks for the same account.

I added a savings account. You can add other accounts as you desire.



Here is my main HomeBank window now:



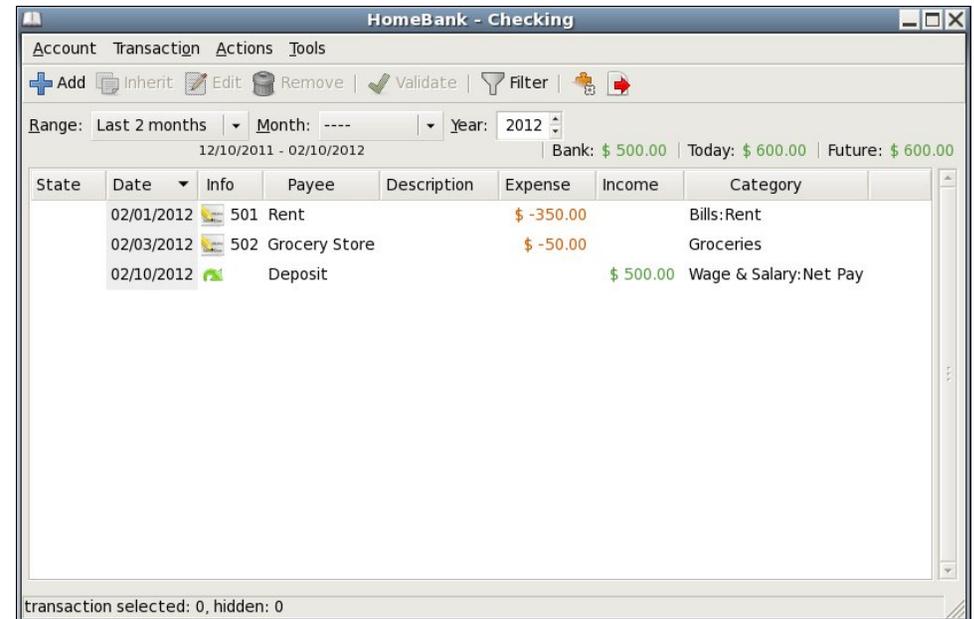
You need to go to File > Save As... and give your wallet file a name. After that, you can just click on 'Save' in the toolbar.

Now we have our accounts set up. Double-click the name of the account you want to view. You will get another window with that account's ledger in it (top right).

Notice that your balance is at the top of the window to the right of the word 'Today.'

To add your transactions, simply click the Add button.

From here you can add as many transactions as you want.



When you click Add in the lower right corner, your transaction is added to the register, but this window remains open. In the window, we see all the necessary information for your register. I should first point out a few things, though.



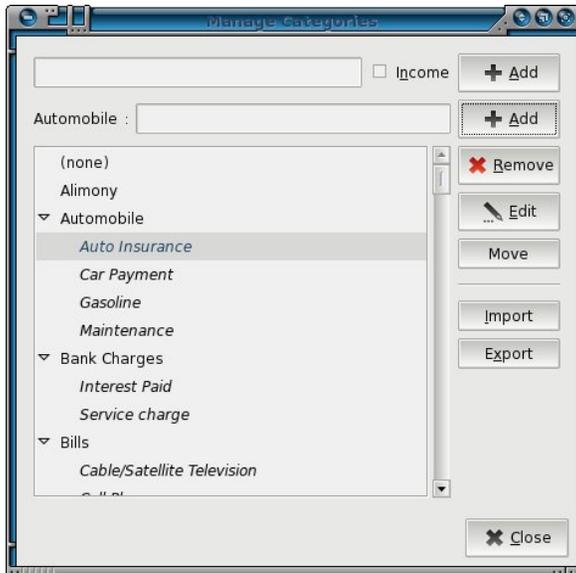
First, you can add payees as you are filling in the transaction, and they will be saved. Also, you need to designate a payment in the Amount window by clicking the +/- button or the program will add everything to your balance instead of subtracting the checks.

Next, you can keep track of the type of payment you are entering with the Payment drop down. You can choose check if you wrote a check, but there is also Credit Card, Debit Card, Transfer,

Electronic Payment, Deposit and a few others. Info actually keeps track of your check numbers. Back on the register window, info will display the check number if you wrote a check, plus the type of payment made. There is a place for a description, in case you wrote a check at a store for something in particular and want a note of it in your register. The concept of tags has been added as well, to provide better search results.

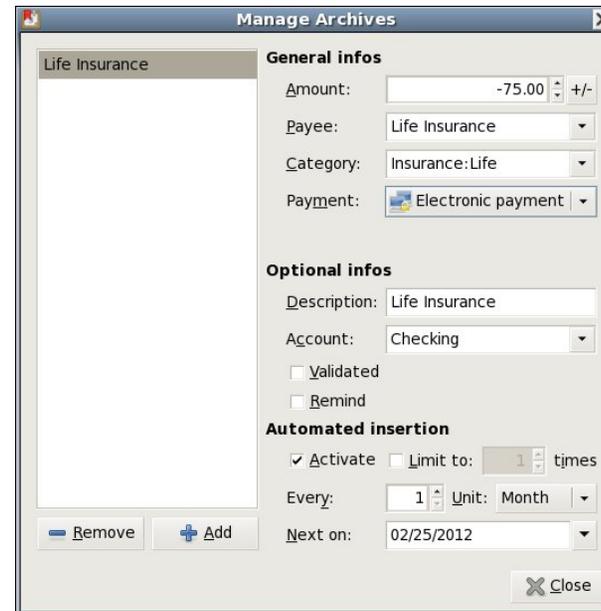
The 'Validated' check box is checked during your bank statement reconciliation, and the 'Remind' check box can set a reminder for a special transaction, such as loaning money to someone.

HomeBank includes many pre-entered categories, but that does not mean you can't add some of your own using the Manage Categories window. I noticed that auto insurance is in the category Insurance, but I want it in with the cost of operating my auto. I clicked on Automobile and added Auto Insurance as a sub-category.



Once you have your transactions entered, there are a couple of extra things you can do. Many of our transactions are payments we make regularly, like rent, gas, electric, cable and phone bills. We can set those up as automatic transactions which are added to the appropriate account on a certain date every month. This works particularly well if it is an

automatically withdrawn payment. For example, I have my life insurance premium electronically withdrawn from my checking account once a month. I have to remember to enter that into my check register every month. The automatic payment is an easy way to make sure it isn't forgotten.



Automatic payments are configured in the 'Archive' dialog in the Manage menu. When the window opens, you create an archive by filling in the details of your transaction. I have filled in an automatic life insurance withdrawal below. Notice that it is almost like the transactions list in that you fill in the payee, category, type of payment and account, but at the lower right of the window you must activate the automation and designate how often it is to be done and on what date the soonest one is to occur.

You can add as few or as many as you wish. You can also

remove one when it's no longer needed, such as when the car is paid off. When you get back to the main window, it will have the automatic payment in the lower half of the window:

Upcoming automated transactions					
Payee	Description	Amount	Account	Next on	Remaining
Life Insurance	Life Insurance	\$ -75.00	Checking	02/25/2012	10 days
<b>Total</b>		<b>\$ -75.00</b>			

There is a button for Assigned Transactions, but it seems to be one where you can assign a specific category and payee to a specific description. When you enter that description into your transaction window, it automatically fills the Payee

and Category. There is also a choice in your account window (your check register), which is called Inherit Transaction. If you inherit a transaction, HomeBank creates a new one exactly like the one you chose to inherit. Then, you can change the date and amount of payment and save it as a new transaction. This can be handy for things like the weekly grocery store visit.

One different thing you can do is a car cost report, which includes mileage. This particular feature involves editing your auto fuel expenses. Many of us keep track of our mileage, along with the amount of fuel we put in the vehicle when we filled it. We can transfer that information into HomeBank's transaction window in the following manner.

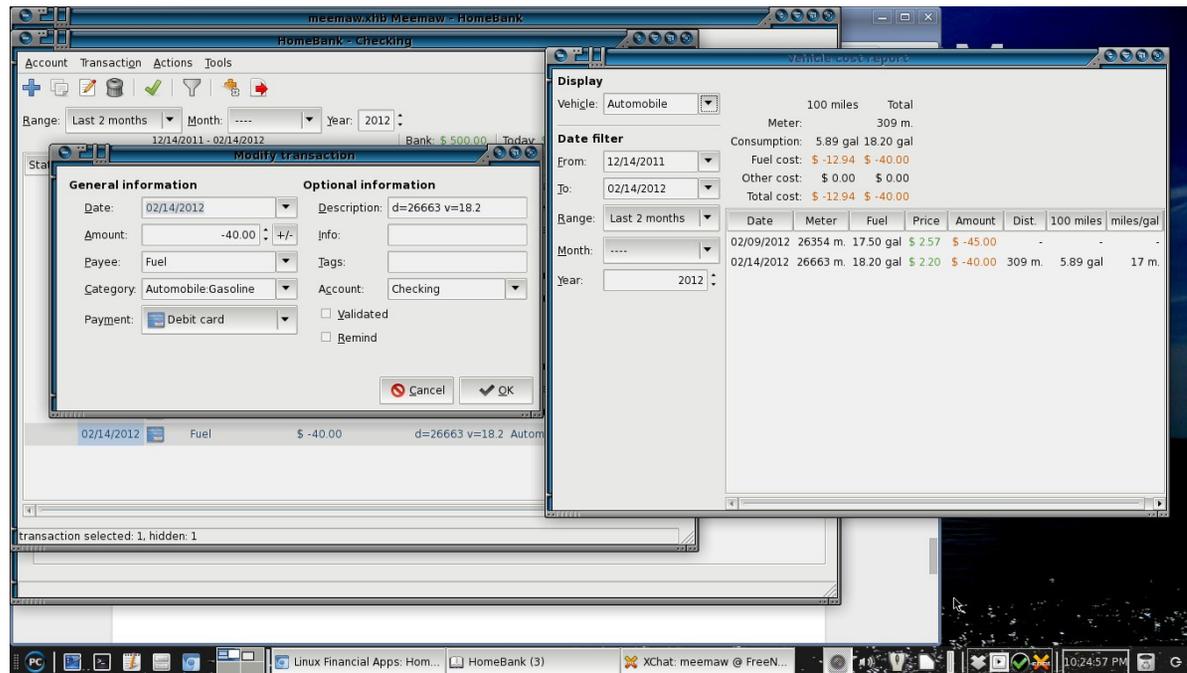
In the transactions window I entered a debit card transaction for fuel using the category Automobile. In the Description, I entered the vehicle's odometer reading as d=26663 and the amount of fuel purchased as v=18.2. Since I have a starting odometer reading before this one, the program can now figure the gas mileage

(MPG) as well. Adding car payments, insurance, repairs and taxes to the same category will give me an overall view of the cost of my vehicle.

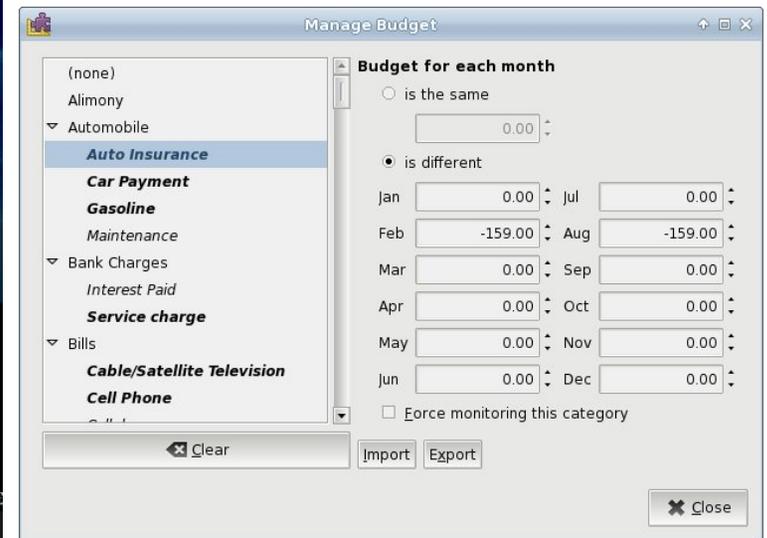
If you have more than one vehicle, you should create another category named Automobile 2 or Truck or something meaningful with the same sub-categories. You can set your preferences to use Imperial units or metric units. Preferences is the only choice in the Edit menu.

HomeBank has a budget feature as well. You have a configuration window where you can designate an estimate of your annual spending in each category. On the left is a category list and at right you see blanks to fill in with an estimate of your monthly expense. You have to designate spending for each category.

You can do it two ways. First, if you pay the same amount each month (like a cable bill or rent or car payment), you can click in the radio button that says (Budget for each month) **is the same**, then enter that amount in the box.



Second, for the categories that have occasional payments (my auto insurance is paid twice a year), choose the radio button before **is different** and fill in the months that apply. That method



can also be used with categories where the payment varies, like natural gas, which we use more in the winter. The categories that have already been completed are displayed in bold text in the list on the left.

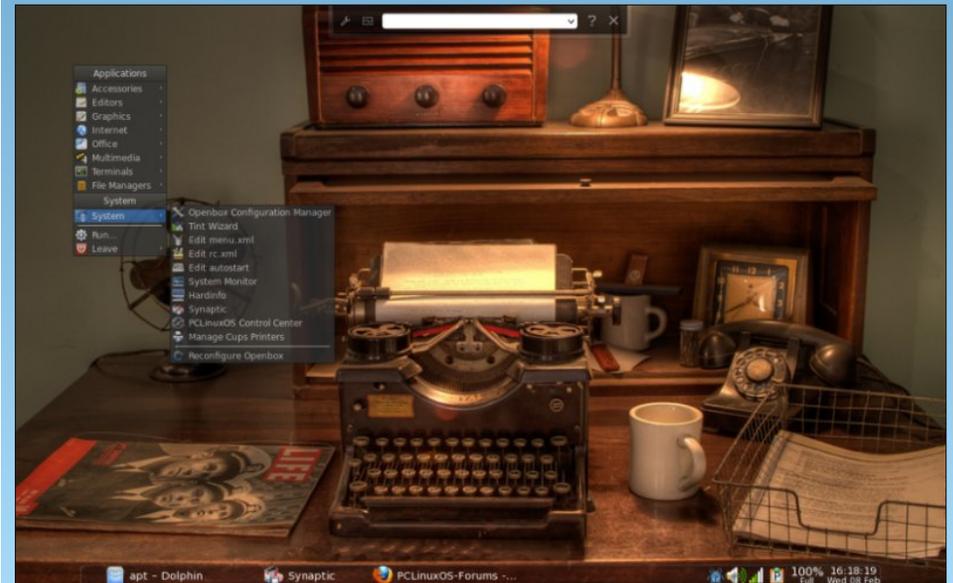
Just as it shows in the image above, your expenses must have the minus sign in front of them to mark them as expenses. You have to type it in yourself. Make sure you complete your salary category so you also have an income in your budget. When you finish, you will have a table like the one shown below.

Category	Spent	Budget	Decay
Automobile:Car Payment	\$ -2,700.00	\$ 2,700.00	\$ 2,700.00
Automobile:Gasoline	\$ -85.00	\$ -1,500.00	\$ 1,415.00
Bank Charges:Service charge	\$ -36.00	\$ 36.00	\$ 36.00
Bills:Cable/Satellite Television	\$ -50.00	\$ -600.00	\$ 550.00
Bills:Cell Phone	\$ -720.00	\$ 720.00	\$ 720.00
Bills:Electricity	\$ -62.00	\$ -780.00	\$ 718.00
Bills:Natural Gas/Oil	\$ -150.00	\$ -1,080.00	\$ 930.00
Bills:Rent	\$ -160.00	\$ -1,920.00	\$ 1,760.00
Dining Out	\$ -600.00	\$ 600.00	\$ 600.00
Groceries	\$ -175.00	\$ -4,200.00	\$ 4,025.00
Insurance:Health	\$ -1,200.00	\$ 1,200.00	\$ 1,200.00
Insurance:Home-owner's/Renter's	\$ -200.00	\$ 200.00	\$ 200.00
Insurance:Life	\$ -75.00	\$ -900.00	\$ 825.00
Wage & Salary:Net Pay	\$ 1,500.00	\$ 24,000.00	\$ -22,500.00
Automobile:Auto Insurance	\$ -159.00	\$ -318.00	\$ 159.00

You can sort by category or sub-category, can list Income and Expenses or only Expenses or only Income and can choose a certain time frame, like the present year or the current month using the drop menus at left. Your budget can also be shown as a bar graph. The term 'Decay' is the difference between the budgeted amount and what has been entered in your accounts.

I think once you get used to some of the idiosyncrasies of HomeBank, it is a very useful program. It works very well, but some of the columns are too close together for me. I can widen most of them, but the next time I open the window they haven't stayed where I've put them, and are jammed together again. It doesn't affect the program operation, but I do find it a little bit annoying. I haven't found anything in the program about online banking. However, for someone who is interested in keeping track of their budget, it's a good program.

## Screenshot Showcase



*Posted by ferry\_th, February 8, 2012, running Openbox.*

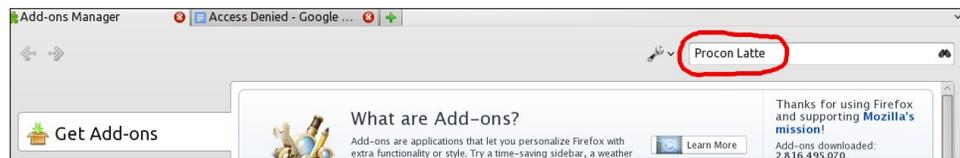
# Access Denied: Procon Latte Content Blocker

by Ralf Vöpel (DAGAZ)

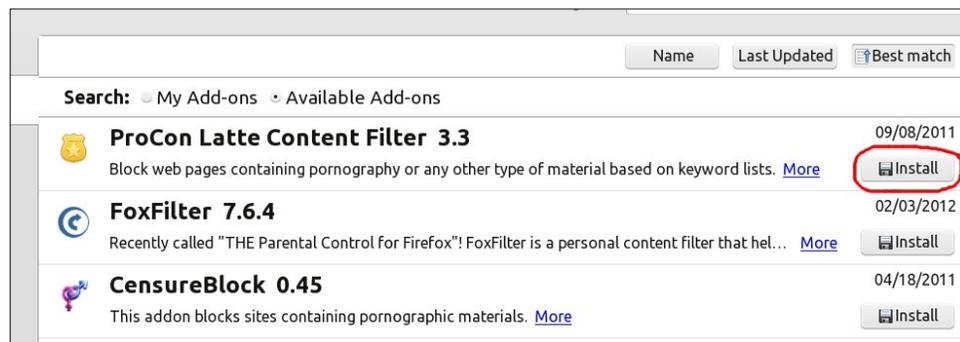
Firefox and the Internet. The final Frontier. These are voyages of a PCLinuxOS user. His never ending mission: to explore the strange WWW, to seek out new Websites, to boldly surf where no man has clicked before ... and ends up where he did not want to.

Has it ever happened to you? You're Google'ing for something and end up on an adult or @#\$% website? Now, what if this happens to your kids and you are not there? It is time to put a leash on the Fox. Thanks to Firefox's Add-ons, we can protect our kids from the big, bad WWW.

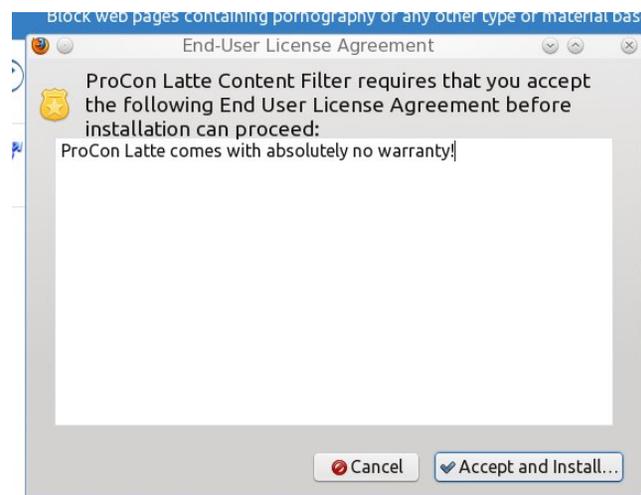
First, open Firefox, click on Tools, then Add-ons, and type Procon Latte into the search box.



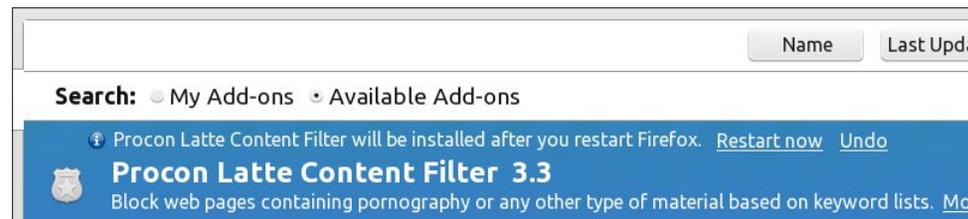
Hit Enter and you should get a few results:



We want to install ProCon Latte Content Filter 3.3. Click the Install button. You will now be prompted to accept the EULA. This is the shortest EULA I have ever seen in my entire PC hacking life.



Click on Accept and Install. Firefox will now download the Add-on. When done, the entry of ProCon Latte will change:



Firefox will install the selected Add-on after a restart. Let's click on Restart now and wait for the Fox to come back to life. The first thing you will notice is that the ProCon Latte entry is missing.

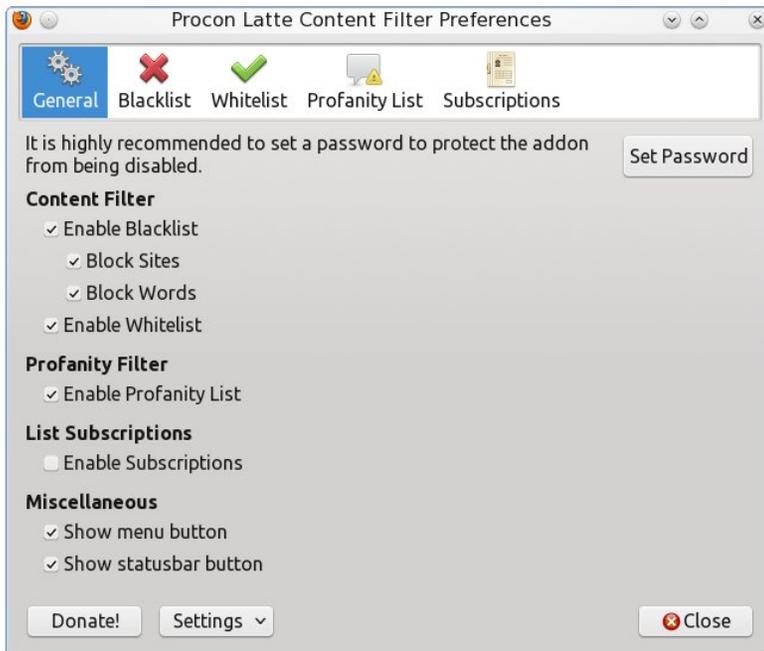
That is because Firefox has installed the Add-on and it is now a so called Extension. Click on Extensions and there it is.



The Content Filter is now installed and ready for duty. Notice the three new buttons: Preferences (customizing ProCon), Disable (turn ProCon off/on) and Remove (uninstall the extension).

I do not think we have to go into detail for the Disable and Remove buttons. However, Preferences is a different story. Let the customization begin.

## Preferences:

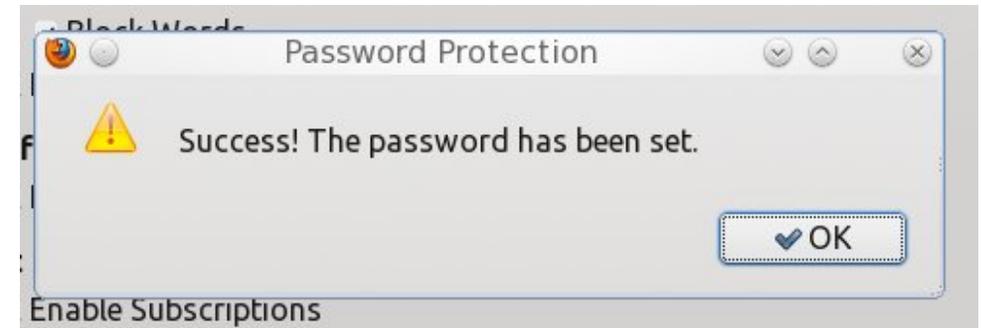


## Identify yourself!

The first thing we should do is to protect our Add-on from 'outsiders'. Click on Set Password, enter a password, click OK and re-enter the password.



If the passwords match....

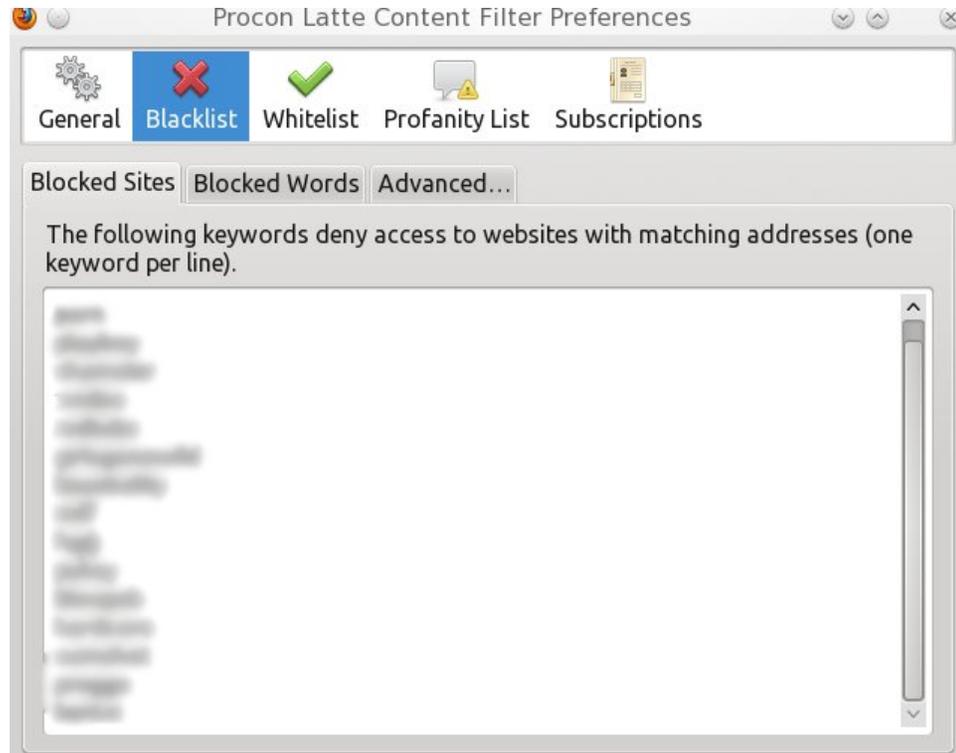


....and the Set Password button changes to Remove Password.

Under General, everything is checked except the List Subscriptions -> Enable Subscriptions. Click to check that box, too. We'll look at that a bit later.

## The Blacklist:

This list holds a part of a website address. For example: *www.your\_kid\_does\_not\_need\_to\_see\_this.com*, the list would show: *your\_kid\_does\_not\_need\_to\_see\_this*.

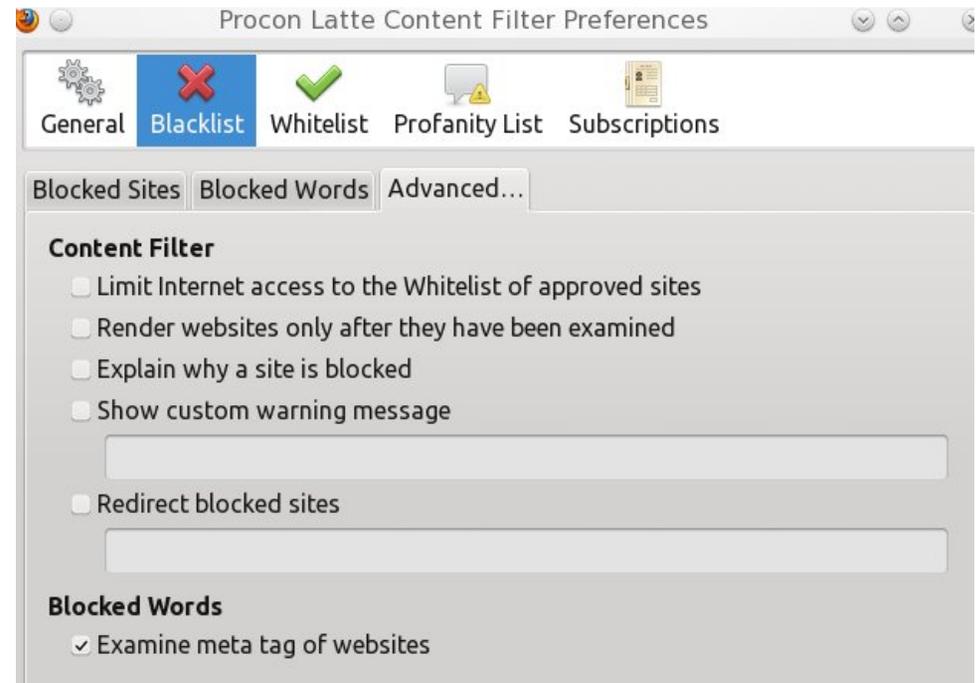


A few common words that appear in website-names are already in the list. You can add your own website addresses without the 'www' and 'com', 'net', 'org' etc. Add words and phrases to the list simply by clicking inside the list, watch where the cursor starts to blink and start typing. If you put two words in one line then BOTH words must match for the site to be blocked!

## Blocked Words:

If a website passes the Blocked Sites list, ProCon Latte checks the text/contents of the site. If one of the words or combinations are found, the site will be blocked. How do I know which sites will be blocked, you ask? Well, let's click the Advanced Tab.

## Advanced...



## Limit Internet access to the Whitelist....

If checked ONLY, websites in this list (see Whitelist) can be pulled up. In other words, if you have **www.pclinuxos.com** in the whitelist and you want to go to

[www.pclinuxos.de](http://www.pclinuxos.de), you are not getting there. To get to both sites, add `pclinuxos.*` to the whitelist and you are good to go.

Pro Whitelist: Only sites you want your kids to see can be pulled up.

Con Whitelist: Only sites you want your kids to see can be pulled up by you, which means YOU can go nowhere else either. I leave this unchecked and exercise more caution of the Blocked Sites and Blocked Words.

### Render Websites only after....

Not recommended because adult content may flash on the screen before ProCon catches the x-rated content. However, if checked, pages load faster.

### Explain why a site....



If **Explain why...** is checked, you get a message under your address-bar telling you why the page was blocked. The bad thing about it is, you also get the Options button. This allows your kid or any other user to allow the page to load, even if the page is blacklisted. Even worse, he/she can add it to the whitelist. Having this one checked would be the same as carrying water to the river. It makes no sense. Recommendation: **do not check that one.**

### Show custom warning....

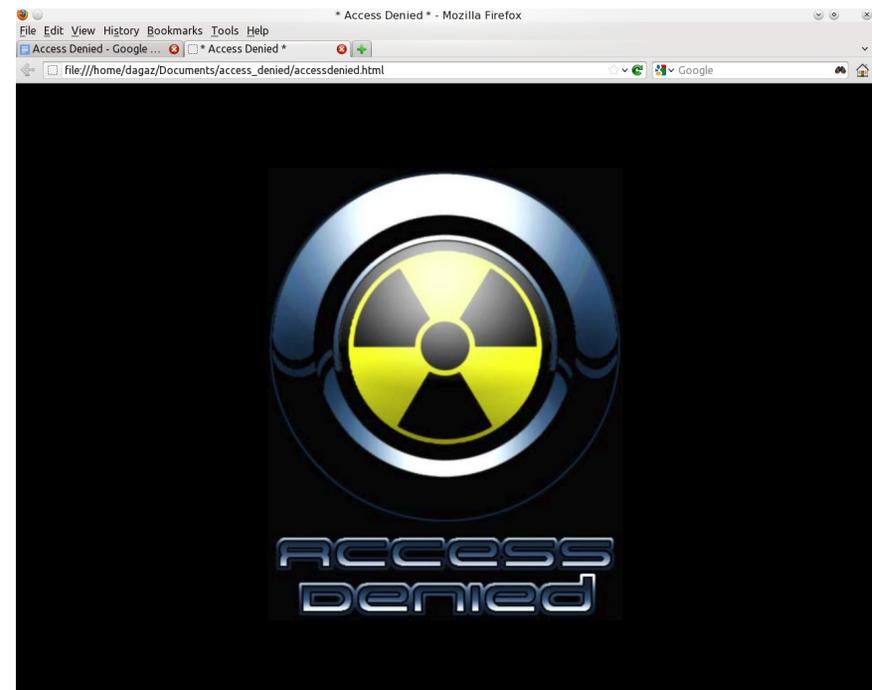
Same as the **Explain why....** setting, except you can type your own message that would show up. You also get the Options button with your custom warning. Again: **do not check that one, either.**

Now comes my favorite part of ProCon Latte, **Redirect blocked Sites.**



I made a single html page with LibreOffice Writer named `accessdenied.html`, saved it in `/home/dagaz/Documents/access_denied/`. The picture is also located in that folder. You can get the pic here: [http://accessdenied.phpnet.us/access-denied\\_jpg\\_25.html](http://accessdenied.phpnet.us/access-denied_jpg_25.html) or google for 'access denied pictures.'

Whenever ProCon Latte blocks a page, Firefox opens the file `accessdenied.html`. This is what it looks like in the browser:



Simple, easy, cool.

## Blocked Words

Some, well, most websites use the meta tag to describe the contents of their site and other stuff. I leave this on.

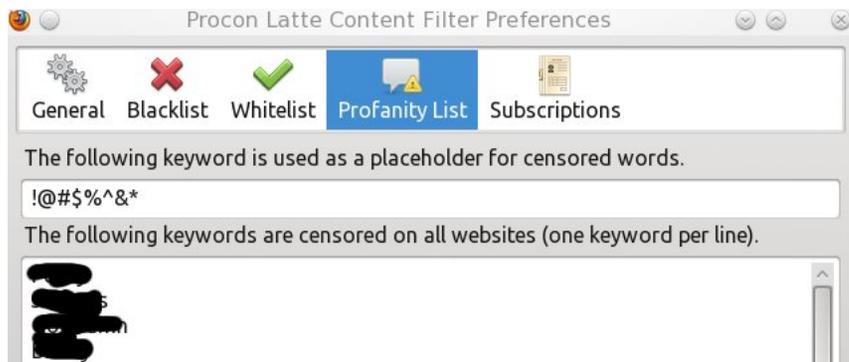
## Whitelist...

Here you can add all the pages you want to bypass the content blocker. Remember, it only works if you click on **Limit Internet access to Whitelist** in the **Advanced Tab** under **Blacklist!**

## Profanity List

Let's say you do not want to block anything at all, BUT, you do not want curse words, bad or foul language to show up on the screen. This is the place.

Whenever ProCon Latte finds a word on the website matching the word in the list, it is replaced by...hold onto your hats... the phrase or word you choose. In the example every bad word would be replaced with `!@#$$%^&*`



## Subscriptions

The first time you click on it, ProCon Latte tells you that your subscription is outdated. Just click on the **Update Subscription** button and the update will be done free of charge.

Three more buttons left, **Donate!**, Settings and Close. (Wonder what that button does? Once you click Donate!, (that is, if you want to), a new tab opens up and connects you to Paypal.

**Settings** allows you to save (Export) your settings or restore (Import) your settings. It is handy if you want to sync two or more PCs. Here, you can also Restore ProCon Latte to Default. You will lose all your settings, of course. Make sure you saved (Export) your settings.

Sure, there are more web content filters out there. However, this one is easy to install, free, customizable and works with any OS that can handle Firefox. The BIG negative part of ProCon Latte is it is a Firefox Extension. If you have a different browser installed, then all the blocked sites, blocked words and profanity lists are bypassed. If you want to use this one to protect your kids, make sure nothing else but Firefox can boldly surf where no man has clicked before.

Here is the HTML code for the Access denied homemade page:

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.0 Transitional//EN">
<HTML>
<HEAD>
<TITLE>* Access Denied *</TITLE>
  <META HTTP-EQUIV="CONTENT-TYPE" CONTENT="text/html; charset=utf-8">
  <TITLE></TITLE>
  <META NAME="GENERATOR" CONTENT="LibreOffice 3.4 (Linux)">
  <META NAME="CREATED" CONTENT="20120207;18244300">
  <META NAME="CHANGED" CONTENT="20120207;18291000">
  <STYLE TYPE="text/css">
```

```

<!--
  @page { size: landscape }
-->
</STYLE>
</HEAD>
<BODY LANG="en-US" BGCOLOR="#000000"
DIR="LTR">
<P ALIGN=CENTER><BR><BR>
</P>
<P ALIGN=CENTER><BR><BR>
</P>
<P ALIGN=CENTER><IMG
SRC="..path_to_where_the_picture_is_located/acc
ess-denied_25.jpg" NAME="Access denied"
ALIGN=BOTTOM WIDTH=530 HEIGHT=675
BORDER=0></P>
</BODY>
</HTML>

```

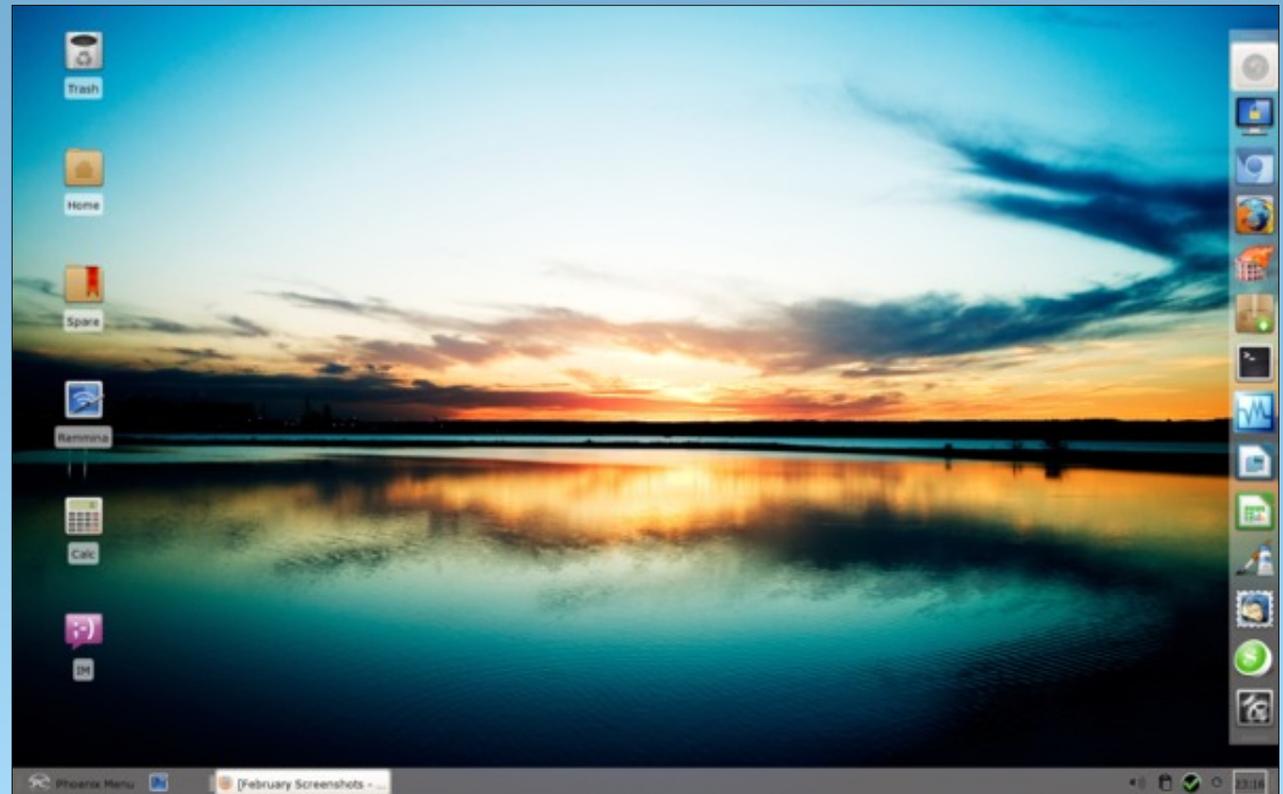


*Looking for an old article?  
Can't find what you want? Try the*

***PCLinuxOS Magazine's  
searchable index!***

The **PCLinuxOS** magazine

## Screenshot Showcase



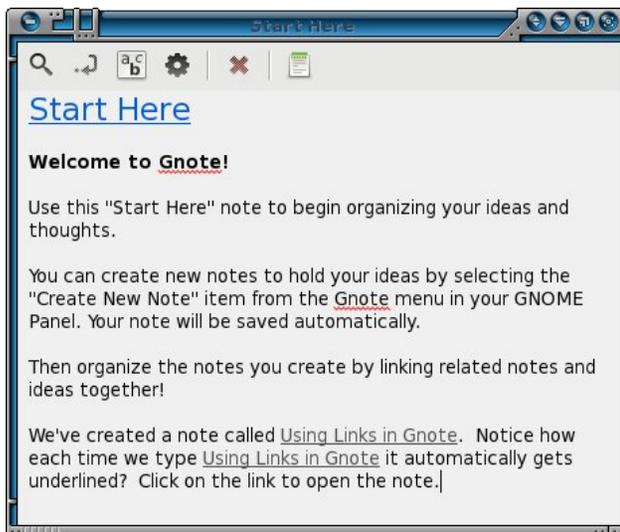
*Posted by GermanTux, February 1, 2012, running Xfce.*

# Gnome 2.32: GNote & Glista

by Meemaw

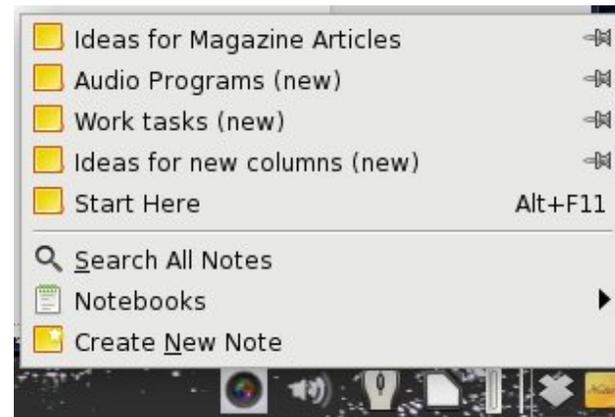
Sometimes you just want a simple little note-taking program, or maybe just a sticky note to remind you of things you have to do. Gnome has a couple of handy little programs just for those types of tasks.

**GNote**, according to the [Gnome Live Wiki](#), is the same note-taking application as Tomboy. When you start GNote for the first time, you get the window shown below, which introduces you to the program.



GNote will put an icon in your system tray, and if you wish, that's all you will see. Left clicking on the icon (yellow square in lower right corner) will pop up a menu with your existing notes and the option to create a new note. If you open a new or existing

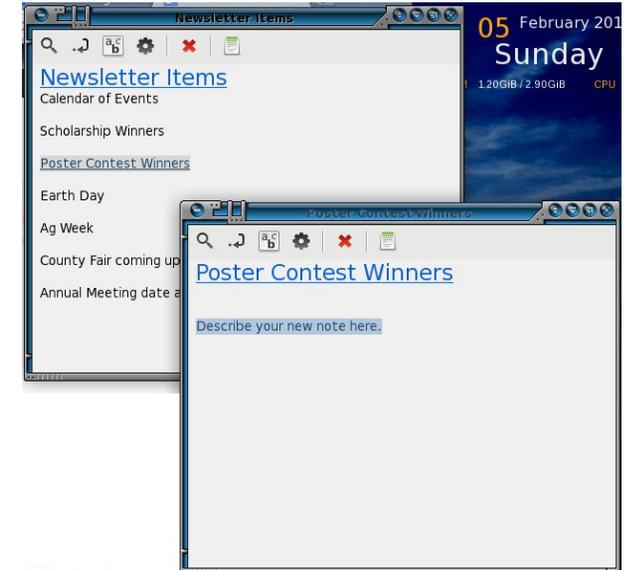
note, it can stay on your desktop as long as you wish.



If you choose 'Create New Note', a window will pop up labeled 'New Note #'. The # designates a number, which corresponds to the number of notes you have created. (For me, this was New Note 6.) You should highlight that title and change it to something more meaningful. From the window above, you see the titles of my notes. Nothing complicated, but meaningful to me.

These can evolve into an outline of sorts. Your main note has a list of items in it, and each item can be 'linked' to its own note. In my job, I do a newsletter which contains many articles about recent happenings or coming events. In the note below, I have listed many items that may be in the upcoming newsletter. By highlighting one of the items, and clicking on the second tool in the toolbar (the arrow which circles around and points to a dot), you can link the item to a new note with that item as the title.

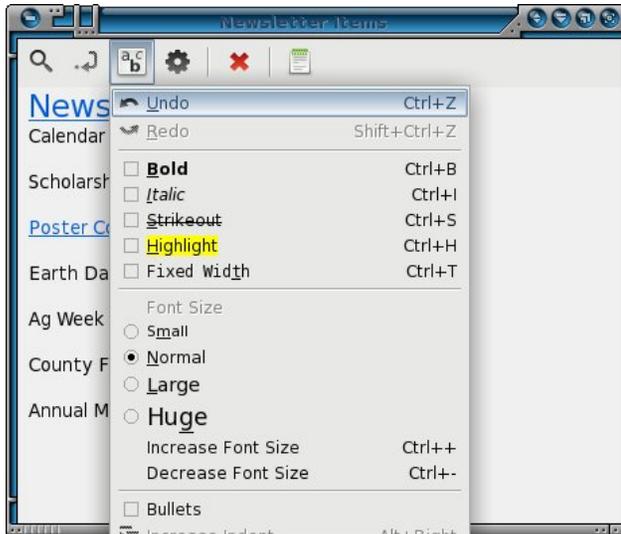
In the new note I can write the article, list the major points or even link that note to another one.



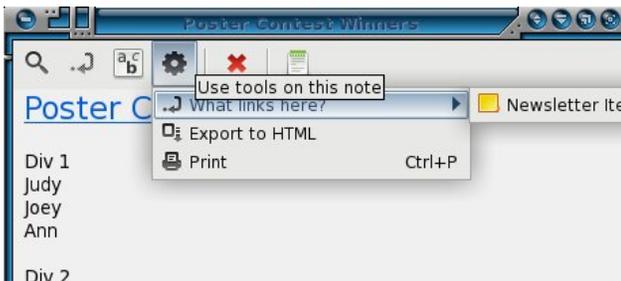
Another feature of GNotes is that you can place your notes into Notebooks to organize them even more. I have two notebooks so far: Meemaws and Work. All the notes from my job are in the Work notebook, and the magazine notes are in the Meemaws notebook. From the menu, you can create a new note by itself, or you can choose to create a note inside a specific notebook. Those choices are at the bottom of the menu.



The toolbar on each note has a couple of handy items. The button that looks like a paper with an a,b,c on it is the text properties button. You can format your text using this button.



The next tool (gear) is the note tools button. You can export the note in html, print the note or see what note(s) are linked to it. There are a few other tools you can get, but these are the program defaults.



The red X is, of course, to delete your note. Make sure you really want to delete it! The last icon (looking like a notebook) is to insert the current open note into the notebook of your choice.

Program preferences are available when you right-click the GNote icon in your tray. To close GNote, the right-click menu also has the choice "Quit"

**Glista** is a simple to-do list program. According to the [Glista website](#), it is written in Gtk+ so it integrates well with the Gnome desktop.

Glista also puts an icon in your system tray when you start it. But when you left-click it, you get a single window. You can enter the subject for your list in the line at the bottom, then click the plus sign to the right.



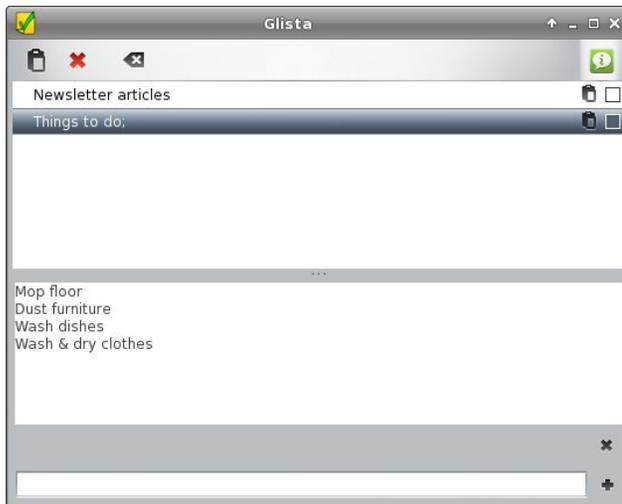
You will now see the subject at the top of the window. If you have more than one subject for a list, they will be arranged in alphabetical order.



Notice in the list, two of the subjects have a little clipboard icon to the right. This means that items have been added to the lists. As soon as I added items to the Grocery List, the clipboard appeared there, too. If you double-click the title of the list, you can change the title. If you double-click the clipboard, the list appears in the bottom of the window. In addition, single-clicking the clipboard at the top will open the list at the bottom for whatever task you have chosen (next page, top).

When you complete the task list, simply click the box at the right of the clipboard. That is Glista's indication that the task is complete and Glista puts a line through the task title (next page, bottom).

When you need to clean up this window, simply click the "Clear Done Items" button, which looks like a box with the left side pointed, containing a white X. All your completed tasks will be removed. To remove a



single task, even if you haven't marked it as completed, choose it and click the red X. To close the program, right-click the panel icon and choose Quit.

These two programs are small, but very useful.

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

(1) Hair different; (2) Cloud moved; (3) Arm shorter; (4) Hand missing from chair back;  
(5) Shirt stripe different; (6) Footstool lower; (7) Word balloon different



## Screenshot Showcase



Posted by DarkEra, February 26, 2012, running Xfce.

# *ms\_meme's Nook: PCLOS Trail*

## **PCLOS TRAIL**

MP3  
OGG

*Texstar comes to paint his OS nightly  
So our desktop will shine brightly  
Along the PCLOS Trail*

*Bits and Bytes scattered all along the Linux Way  
Oh what a beautiful display  
Along the PCLOS Trail*

*Open Source it always will prevail  
We tried the others but to no avail*

*We're glad we found it and the forum that's around it  
Fine friends that surround it  
Along the PCLOS Trail*



# PCLinuxOS Live USB Creator 0.9.7

by Darrel Johnston (djohnston)

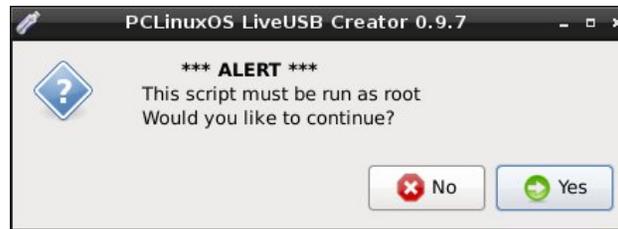
The Live USB script was recently updated and now includes more options. Thank you, Just18. Note that the Live USB script can be run from an installation on hard drive, or from a live CD session. The following is a short tutorial.

The USB external drive or thumb drive should already be partitioned and formatted before starting. The Live USB script will not do it for you. You can use ext2, ext3 or ext4 for the filesystem. FAT filesystems are not supported. Start from the main menu > More Applications > Configuration > PCLinuxOS Live USB Creator. Be sure the USB device you want to write to is **not** plugged in.



This window will appear. Be sure it shows version 0.9.7. Then click OK.

The script must be run as root. If you select No, the script will terminate. Select Yes.



You will be prompted to enter root's password. After entering it, click OK.



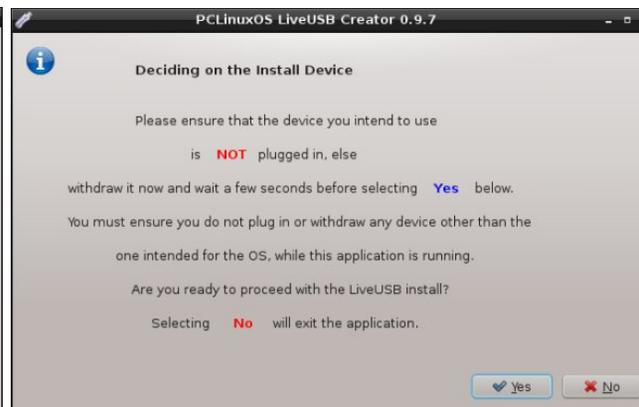
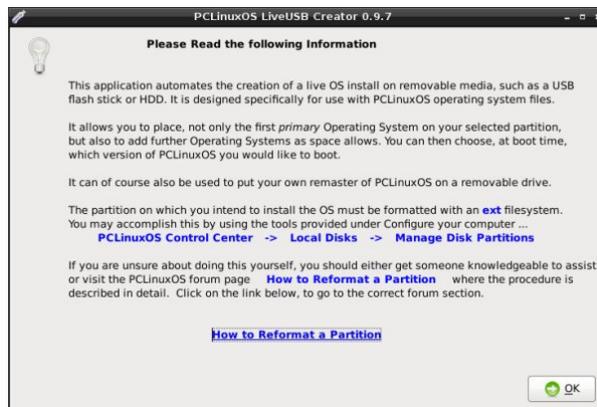
Be sure the USB drive you want to write to is not plugged in. Answer Yes if the device is not plugged

in. If the device is already plugged in, safely remove it, wait 20 seconds, **then** click Yes.

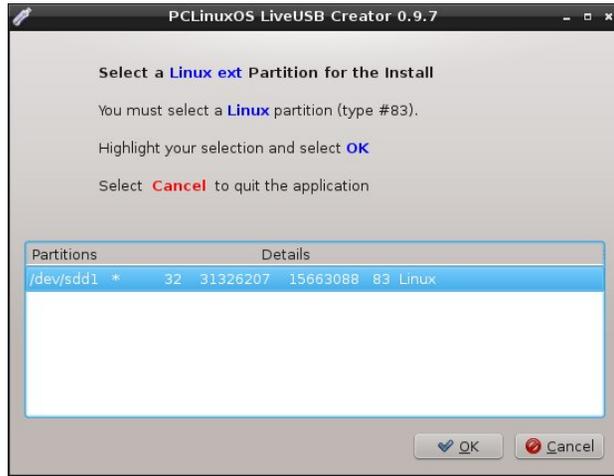
Plug in the USB device you want to write to, then click YES.



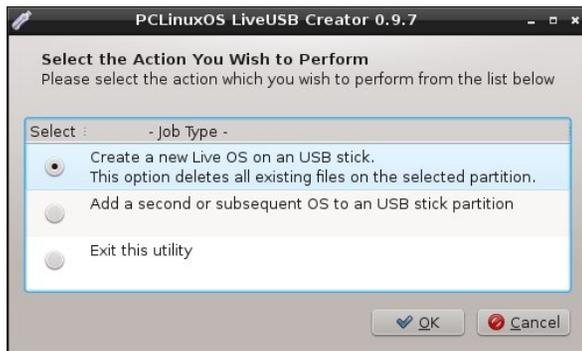
A removable device automounter window may appear on your desktop as soon as the USB device is plugged in. If it does, do not open the file manager to view the contents of the USB. Select Cancel. Do **not** attempt to access the contents of the USB while the Live USB Creator is running. I clicked Cancel here.



Highlight the USB partition you want to write to, then click OK.

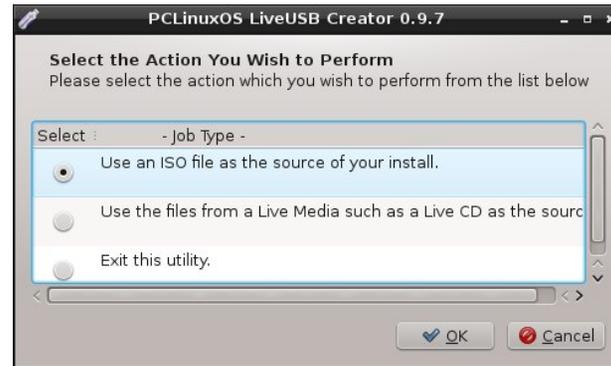


If your USB device is empty, select Create a new Live OS. If you are adding a second OS to the USB drive, select the second option. Click OK.

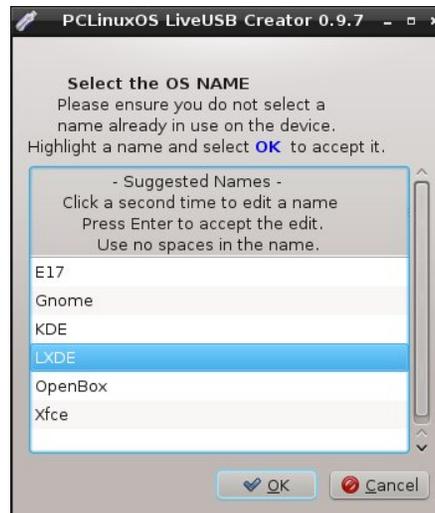


If you are running this from an OS installed on the hard drive, select Use an ISO file. If you are running

this from a live CD, select Use the files from a Live Media. Click OK.

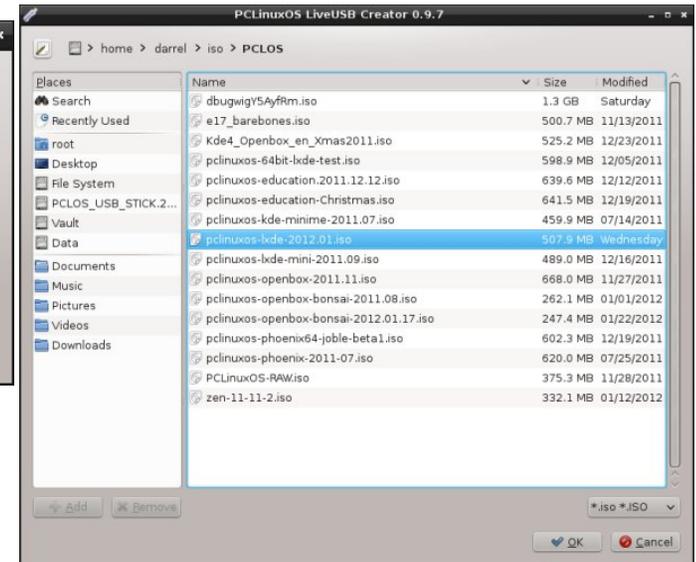


Highlight the boot menu name you want for this iso. Click OK.

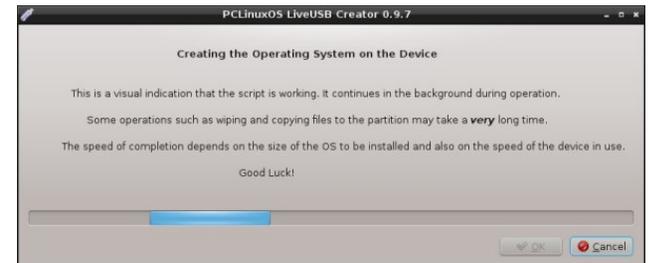


Select the iso file to use from the directories on your hard drive. If you are installing from a live CD, you

will be prompted for the sqfs file to use.

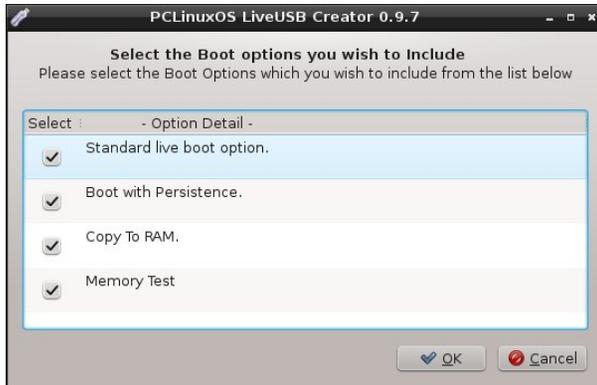


The Live USB creation process will begin. Do **not** interrupt it.

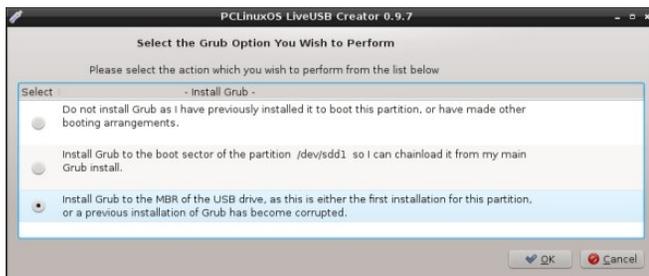


Standard live boot option will be the only one checked by default. You can select as many additional options as you want to be included in the GRUB boot menu. If you want the option to save any changes made to the USB drive, select Boot with

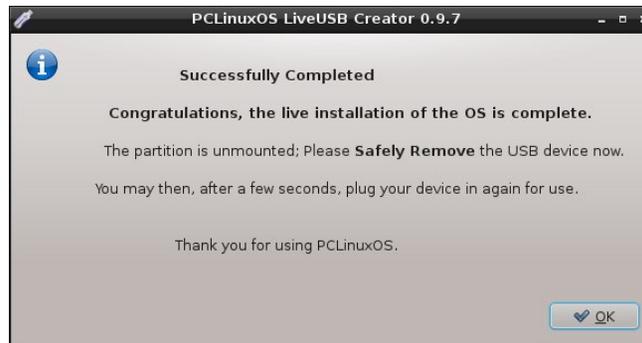
Persistence. Note that Memory Test will appear in the GRUB boot menu if selected, but it will not work unless you have the memtest86 package installed on your hard drive. If running from a live CD, you can install memtest86 to memory from Synaptic.



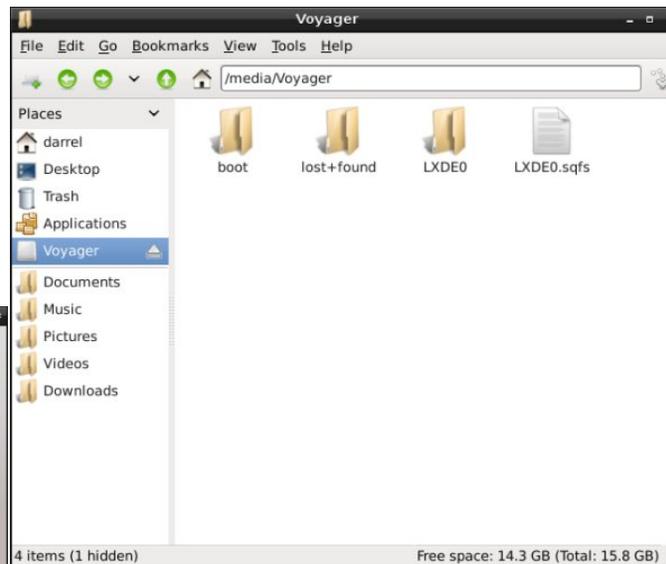
If this is the first installation to the USB drive, select Install Grub to the MBR. If you are managing your own bootloader, select one of the other two options, depending on your preference.



Congratulations. You have completed the installation. Before you do anything else, remove the USB drive you just wrote to. Then click the OK button.



Here are the files that were installed to the USB.



If more ISOs are installed to the USB using this script, each one will have a separately named sqfs loop image file, and a separately named folder for saving persistent changes.

## Disclaimer

1. All the contents of The PCLinuxOS Magazine are only for general information and/or use. Such contents do not constitute advice and should not be relied upon in making (or refraining from making) any decision. Any specific advice or replies to queries in any part of the magazine is/are the person opinion of such experts/consultants/persons and are not subscribed to by The PCLinuxOS Magazine.
2. The information in The PCLinuxOS Magazine is provided on an "AS IS" basis, and all warranties, expressed or implied of any kind, regarding any matter pertaining to any information, advice or replies are disclaimed and excluded.
3. The PCLinuxOS Magazine and its associates shall not be liable, at any time, for damages (including, but not limited to, without limitation, damages of any kind arising in contract, rot or otherwise, from the use of or inability to use the magazine, or any of its contents, or from any action taken (or refrained from being taken) as a result of using the magazine or any such contents or for any failure of performance, error, omission, interruption, deletion, defect, delay in operation or transmission, computer virus, communications line failure, theft or destruction or unauthorized access to, alteration of, or use of information contained on the magazine.
4. No representations, warranties or guarantees whatsoever are made as to the accuracy, adequacy, reliability, completeness, suitability, or applicability of the information to a particular situation. All trademarks are the property of their respective owners.
5. Certain links on the magazine lead to resources located on servers maintained by third parties over whom The PCLinuxOS Magazine has no control or connection, business or otherwise. These sites are external to The PCLinuxOS Magazine and by visiting these, you are doing so of your own accord and assume all responsibility and liability for such action.

### Material Submitted by Users

A majority of sections in the magazine contain materials submitted by users. The PCLinuxOS Magazine accepts no responsibility for the content, accuracy, conformity to applicable laws of such material.

### Entire Agreement

These terms constitute the entire agreement between the parties with respect to the subject matter hereof and supersedes and replaces all prior or contemporaneous understandings or agreements, written or oral, regarding such subject matter.

# Magnet Links: The New BitTorrent Approach

by Paul Arnote (parnote)

It's late at night. You're wanting to fill up your MP3 player with songs for your vacation. You have all of your favorite music on CDs that you have purchased, but don't want to take the time to rip those CDs to MP3 files. Instead, you opt to download that very same music that you purchased on CDs as MP3 files, via torrent files.

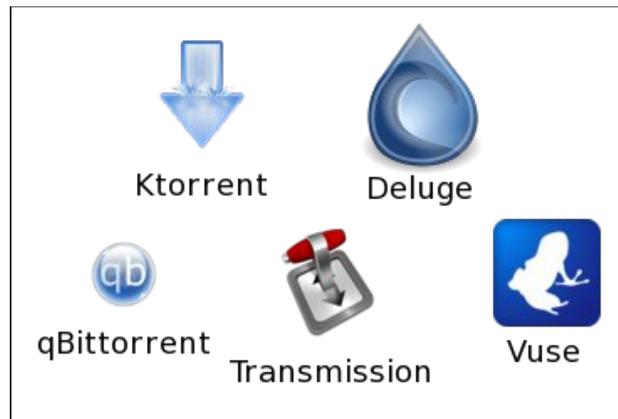
Does that scenario sound familiar? Of course, torrent files aren't just for downloading music or video files. Torrent downloads can also include entire operating systems, such as PCLinuxOS. In fact, that's one of the distribution methods utilized by PCLinuxOS to get the operating system into the hands of users.

Unfortunately, there has been an international crack down on torrent tracker sites by the "copyright gestapo," more commonly known as the MPAA and RIAA, in cahoots with their paid-off politicians. It has resulted in more than one torrent site closing down, out of fear of being caught up in the witch hunt for those committing copyright infringement. Still, there are torrent sites who refuse to be bullied about, and who refuse to shut down. Instead, they've switched to using what has become known as "magnet links."

## The "traditional" torrent file method

Traditionally, you download a .torrent file (also known as a torrent tracker) to your computer from a torrent site. This is a smaller file, containing

information about the larger file you want to download. This information includes a list of the files being shared, the URL for those files, and other pertinent information. Your torrent client (Deluge, Transmission, Ktorrent, etc.) calculates a hash code for that particular torrent. The torrent server then uses that hash code to find others who are uploading those files, so you can download from them.



Five of the torrent clients in the PCLinuxOS repository.

There are quite a few torrent clients in the PCLinuxOS repository. Here is a list of most of them. I'm only listing those that are more commonly used for downloading torrents.

1. BitTorrent (unknown)
2. Deluge (Gtk+/Gnome)
3. FatRat (Qt4)
4. Gnome BTDnload (Gtk+/Gnome)
5. Ktorrent (KDE/Qt4)
6. qBittorrent (Qt4)

7. rTorrent (command line)
8. Transmission (Gtk+)
9. Vuze (Java)

With the traditional approach, using torrent trackers downloaded from a central torrent server, users are much more likely to receive a DMCA (Digital Millennium Copyright Act) take down notice, according to a 2008 University of Washington Department of Computer Science & Engineering [study](#). The copyright gestapo are more likely to link your IP address with the torrent tracker file that was downloaded, resulting in a cease-and-desist order coming from your ISP or the MPAA or RIAA themselves – regardless of whether you completed the torrent download or not.

## What are "magnet links?"

Magnet links skip the "middle man," with the hash values being calculated on the server end (instead of by the torrent client) and are sent to the torrent client. The torrent client then uses the hash value to seek out the addresses of peers on the network, connects to them, downloads the .torrent file, then the desired content. In this way, no torrent tracker files are stored at any central repository, such as [PirateBay](#) or [bitsnoop](#), making it much, much more difficult for your torrent activity to be tracked – and decreasing the likelihood that you'll be receiving one of those aforementioned cease-and-desist orders.

Here is what a couple of magnet links look like:

```
magnet:?xt=urn:btih:768435fee54cf3c072c36f5ede02289509e49386&dn=Dream+House+2011+720p+BDRip+x264+ac3+subs+%28mkv%29+%5BGREYSHADOW%5D&tr=udp%3A%2F%2Ftracker.openbittorrent.com%3A80&tr=udp%3A%2F%2Ftracker.publicbt.com%3A80&tr=udp%3A%2F%2Ftracker.ccc.de%3A80
```

```
magnet:?xt=urn:btih:X77SNTKZAWN3EQZSNKB7KRS7TNTZ3YSH&tr=http://tracker.mininova.org/announce
```

The original specification came out for magnet links in January 2008, and called for base32 encoding. Then, in May 2008, the specification was changed in favor of hexadecimal encoding. The first magnet link listed above, from PirateBay, uses hexadecimal encoding. Other sites, like [mininova](#), use the original base32 encoding, as shown in the second magnet link. Your torrent client should not balk at either, and will accept both without hesitation. This includes all of the torrent clients currently in the PCLinuxOS repository.

Does this mean that torrent tracker files have gone away? Not at all, and probably not any time soon. But, the move is more and more towards the use of the magnet links. In the screen capture below, there



A partial screen capture from PirateBay.

are two download links (in green). The first one, labeled “Get This Torrent” with the magnet next to it, is (you guessed it!) the magnet link. The second one, labeled “Get Torrent File” and with the double green arrows next to it, is the traditional torrent tracker file.

## Adding support to your web browser

Neither Firefox nor Chromium Browser know how to handle magnet links. So, we have to teach them what to do with them. The method below depends on gconftool-2 being installed. As far as I can tell, it comes as part of the base installation of PCLinuxOS, without regard to the desktop environment being used.

Enter the following three lines in a terminal session (each on a single line):

```
gconftool-2 -t string -s
/desktop/gnome/url-handlers/magnet/command
"transmission %s"
```

```
gconftool-2 -s /desktop/gnome/url-
handlers/magnet/needs_terminal false -t
bool
```

```
gconftool-2 -t bool -s /desktop/gnome/url-
handlers/magnet/enabled true
```

In the first line, substitute transmission (inside the quotes at the end) with the name of the torrent client you are using. These commands register magnet links with xdg-open to open them with your chosen torrent client.

Now, when you click on a magnet link in Chromium Browser, the magnet link will open in your chosen torrent client. When you click on a magnet link in Firefox, you will be given the choice to choose the application to use. Select your torrent client (the one you used in the above commands should be listed). Be sure to mark the check box at the bottom of the dialog box for Firefox to “remember” what to do with magnet links in the future before you click on the OK button.

To be honest, I was surprised that magnet links worked without further modification in Firefox. Everything I found on the Internet pointed to having to go into about:config and changing some settings there. In fact, I was prepared to write a whole separate section on how to get Firefox to recognize magnet links when I decided to first give them a try, having made the entries above for Chromium Browser. But as it turns out, Firefox also picks up on what to do with magnet links, using the method above.

## Summary

Try as hard as they may, the MPAA, RIAA and the misinformed, misdirected politicians will not succeed in making file sharing disappear. Instead, they will force it deeper and deeper underground. Developers will devise ways to hide and otherwise obscure file sharing activities.

I must say that I’m not condoning copyright infringement. However, when I purchased the same music on vinyl records, then audio CDs, the

copyright holder got double their pound of flesh from me. Just because the primary and preferred format for music distribution changes, it shouldn't mean that the copyright holder should be able to extract yet another pound of flesh – all over nothing more than a distribution format change. I paid the price – twice in many cases – for the rights to listen to that copyrighted content. In my honest opinion, the same holds true for other media (videos) whose primary distribution format changes, but the content remains the same.

**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!

## Screenshot Showcase



*Posted by JohnW\_57, February 13, 2012, running KDE4.*

# Testimonial: My Second PCLinuxOS Convert

by Ramchu

I have this friend of 30 years. He is a car enthusiast, and not computer literate at all. As we visited from time to time over the past year, occasionally the subject of computers would come up and I would mention that I don't use Windows on my computers. I explained that, instead, I run an operating system known as PCLinuxOS with the desktop environment KDE, and explain how trouble free it is, what with not having to run an anti-virus program and not having to deal with the automatic updates that Windows has.

About a month ago, I was at his place and was telling him that I had come across what I thought was a really good price on a new Lenovo Desktop computer. I mentioned that I was going to purchase it for my wife, since her computer is 7 or 8 years old and needs to be updated.

He says that he would go to the computer shop with me to pick it up. We get there, and to my surprise, he buys one just like the one that I had just purchased for my wife.

We go back to his place and he can't wait to get his new computer hooked up. So, I hook it up and get it up and running. It came with Windows 7 Home Premium pre-installed.

To my surprise, the next thing that he wants to know is, when can you put this Linux thing on my computer. I told him that it would take me about an hour if he or his wife had a blank CD.

I downloaded the latest PCLinuxOS iso (2011.9 kde full version). I then downloaded EaseUS partition Master (free for home users) from easeus.com, and installed it on his new computer. I then reduced his Win7 partition from 500 gig down to 250 gig. After that process completed, I downloaded InfraRecorder CD/DVD burning software and burned the



PCLinuxOS ISO image to a CD. Next, I booted into the BIOS, set the Boot order to boot from the CD-ROM drive, and booted to the PCLinuxOS Live CD. I then installed PCLinuxOS onto the Hard Drive, rebooted the computer, opened Synaptic, and downloaded and installed all the available updates.

At this point, his wife is telling me that I am going to regret doing this, since she is the one that has been having to maintain his computer, doing all of the

software installs, updates, defragmenting, virus scans, malware removal, ect., since he refuses to learn anything about computers.

She is saying that I have just created myself a monster, and he will be calling me at all hours of the day and night, along with having me to come over to fix his computer all of the time. I explain to her not to worry because I installed PCLinuxOS onto my in-laws computer (they are in their 70's with no computer background at all) and are doing just fine with it surfing the web, sending and receiving email and watching videos.

At the time of writing this, it has been 4 or 5 weeks now and I have had only 1 phone call from my friend with a question about his computer. He was asking how to stop all of the advertising in his FireFox web browser, and I was able to walk him through adding AdBlock Plus to Firefox over the phone.

His wife is also amazed that he is not consistently complaining that this don't work, or that is broke, and she now only has her Windows XP to deal with.

Just one more satisfied PCLinuxOS convert.



# ms\_meme' Nook: Rollin' With PCLOS

MP3

OGG



*Rollin' rollin' rollin' through the net we're strollin'  
Keep that bull a rollin' rawhide  
Through rain wind and weather PCLOS is always better  
I'm glad Texstar is by my side  
You don't know what you're missing  
All others start dismissing  
It's the best OS I have tried*

*Boot 'em up Root 'em up Root 'em up Boot 'em up  
Boot 'em up Root 'em up in stride  
Boot 'em up Root 'em up Root 'em up Boot 'em up  
Boot 'em up Root 'em up with pride*

*Keep movin' movin' movin' PCLOS we're approving  
Keep that bull a movin' rawhide  
Download the ISO all others you will forego  
Our distro is known far and wide  
My heart's palpitatin' my forum friends are a waitin'  
In the Sandbox they all reside*

# Alternate OS: OpenIndiana, Part 2

by Darrel Johnston (djohnston)

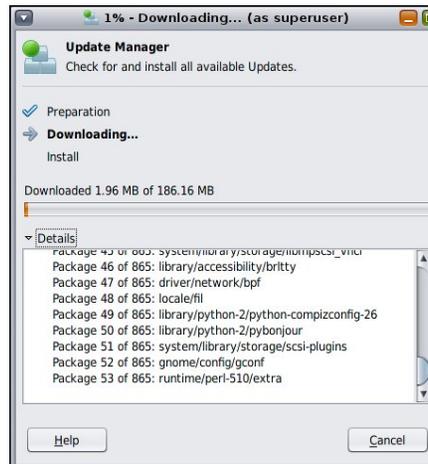
There are two extremely powerful and innovative creations of the Solaris operating system. The first of these is DTrace, which is a dynamic instrumentation framework. The main components of the system are the DTrace framework and the instrumentation providers, both residing in the kernel. The main idea behind separating the two sub-components resides in the fact that different providers can have different instrumentation techniques. Instrumentation providers are loadable kernel modules that define a set of probes they can activate on demand. These probes are advertised to system users and can be identified by the following four criteria: <provider name, module, function, probe name>. System users can specify in a script file the four elements to activate a specific probe, or any subset of the four elements to activate all the probes that match the specified subset.

The D language, used for Dtrace scripting, is derived from a large subset of C, and allows access to the kernel's native types and global variables. Users can specify inside the D script file the providers' names, the probes' names, and the actions to take whenever each probe is hit. This file can then be compiled by the D compiler implemented in the DTrace library and invoked by the DTrace command. Upon execution, the DTrace framework enables the probes that were specified in the file by making appropriate calls to the probe's providers.

There are many features inherent in the framework that make systems administrators' and programmers' debugging tasks much easier. Examples of the D language and Dtrace's capabilities are way beyond the scope of this article.

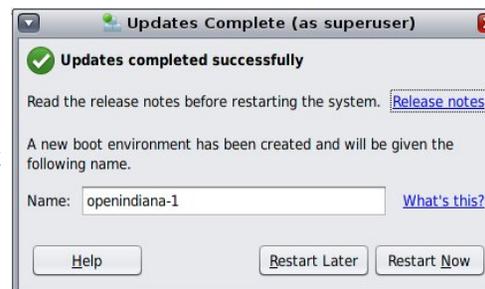
The [DtraceToolkit](#), which is a collection of over 200 useful and documented DTrace scripts developed by [Brendan Gregg](#), can be downloaded from the [OpenSolaris.org's website](#), which now has Oracle branding.

Like any good system administrator, I checked for any updates at the beginning of my last OpenIndiana session. There were a few. Eight hundred and sixty five, to be precise.

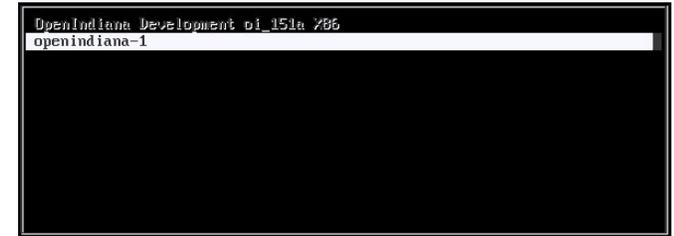


I wasn't sure why there were so many, until the downloaded packages had been installed and this dialog window popped up.

A new boot environment had been created and I was asked whether to



reboot now or later. I chose now. After reboot, there was a new GRUB entry, selected by default.



After logging into the Gnome session, I saw no apparent changes. Let's see what they were, apart from all those packages. Before the update, uname -a showed SunOS openindiana 5.11 oi\_151a i86pc i386 i86pc Solaris. After the update, it showed SunOS openindiana 5.11 oi\_151a2 i86pc i386 i86pc Solaris. That's a kernel upgrade from alpha version 1 to alpha version 2, although the new boot environment is named openindiana-1. It was done on the running OS, updated in place, with only a few mouse clicks and supplying the root user's password. It sure beats upgrading a BSD kernel and userspace.

The second extremely powerful and innovative creation of the Solaris operating system is the ZFS file system. ZFS is a new kind of file system that provides simple administration, transactional semantics, end-to-end data integrity, and immense scalability. It is a fundamentally new approach to data management.

ZFS presents a pooled storage model that completely eliminates the concept of volumes and the associated problems of partitions, provisioning, wasted bandwidth and stranded storage. Thousands

of file systems can draw from a common storage pool with each one consuming only as much space as it actually needs. The combined I/O bandwidth of all devices in the pool is available to all file systems at all times.

All operations are copy-on-write transactions, so the on-disk state is always valid. Every block is checksummed to prevent silent data corruption, and the data is self-healing in replicated (mirrored or RAID) configurations. If one copy is damaged, ZFS detects it and uses another copy to repair it.

ZFS introduces a new data replication model called RAID-Z. It is similar to RAID-5 but uses variable stripe width to eliminate the RAID-5 write hole (stripe corruption due to loss of power between data and parity updates). All RAID-Z writes are full-stripe writes. There's no read-modify-write tax, no write hole, and no need for NVRAM in hardware.

Disks can fail, so ZFS provides disk scrubbing. Similar to ECC memory scrubbing, all data is read to detect latent errors while they're still correctable. A scrub traverses the entire storage pool to read every data block, validates it against its 256-bit checksum, and repairs it if necessary. All this happens while the storage pool is live and in use.

ZFS has a pipelined I/O engine, similar in concept to CPU pipelines. The pipeline operates on I/O dependency graphs and provides scoreboarding, priority, deadline scheduling, out-of-order issue and I/O aggregation. I/O loads that [bring other file systems to their knees](#) are handled with ease by the ZFS I/O pipeline.

ZFS provides 2 64 constant-time snapshots and clones. A snapshot is a read-only point-in-time copy of a file system, while a clone is a writable copy of a snapshot. Clones provide an extremely space-efficient way to store many copies of mostly-shared data such as workspaces, software installations, and diskless clients.

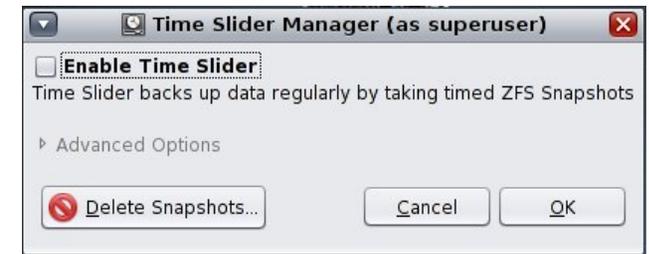
You snapshot a ZFS file system, but you can also create incremental snapshots. Incremental snapshots are so efficient that they can be used for remote replication, such as transmitting an incremental update every 10 seconds.

There are no arbitrary limits in ZFS. You can have as many files as you want: full 64-bit file offsets, unlimited links, directory entries, and so on.

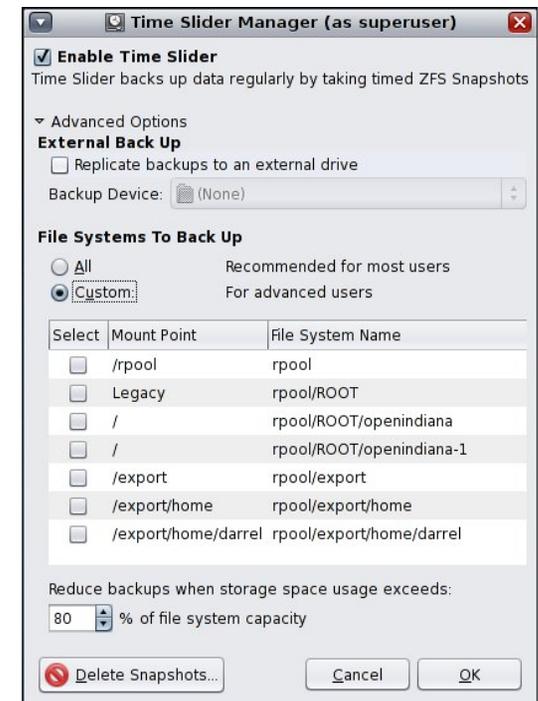
ZFS provides built-in compression. In addition to reducing space usage by 2-3x, compression also reduces the amount of I/O by 2-3x. For this reason, enabling compression actually makes some workloads go faster.

In addition to file systems, ZFS storage pools can provide volumes for applications that need raw-device semantics. ZFS volumes can be used as swap devices, for example. And if you enable compression on a swap volume, you now have compressed virtual memory.

The constant-time snapshots are easily set up in OpenIndiana by using the time slider manager system utility. In the Gnome menu, go to System > Administration > Time Slider. After supplying root's password, you will see the Time Slider Manager window as shown above, at right.



Check the Enable Time Slider box to start the service. But, wait! There's more. Click Advanced Options.

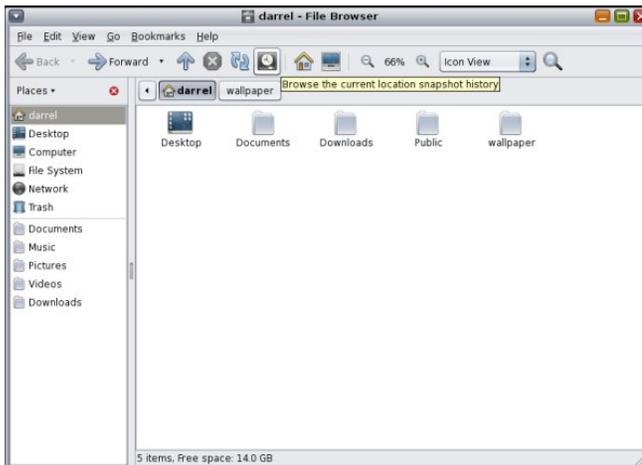
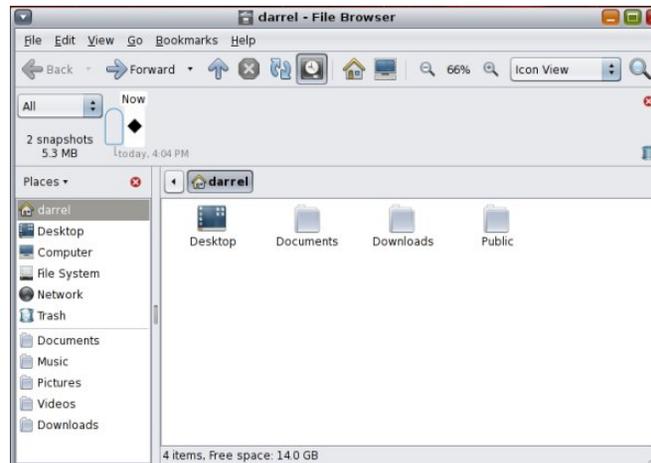


Backups can be stored on an external drive. You can selectively choose the mount points to back up.

Note that the new `/rpool/ROOT/openindiana-1` boot environment can be individually selected to exclude the older boot environment. The File Systems To Back Up choice is set to All by default. That's the one I chose. Once the OK button is clicked, a current system snapshot will be saved.

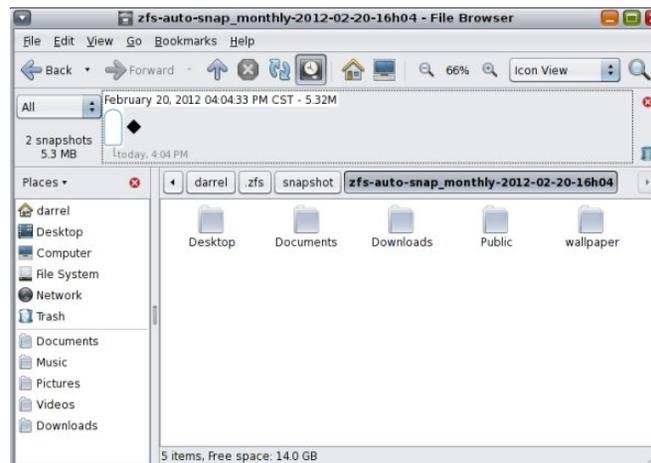


Once the time slider has been activated and is in use, the snapshot history icon in the Nautilus file manager is available for use.



Just as a quick test and demonstration, I moved the `~/wallpaper` folder to `~/Documents/wallpaper` (top, center).

Then I selected the previous system snapshot in the file browser by clicking the vertical button to the left of the Now black diamond (center, bottom).



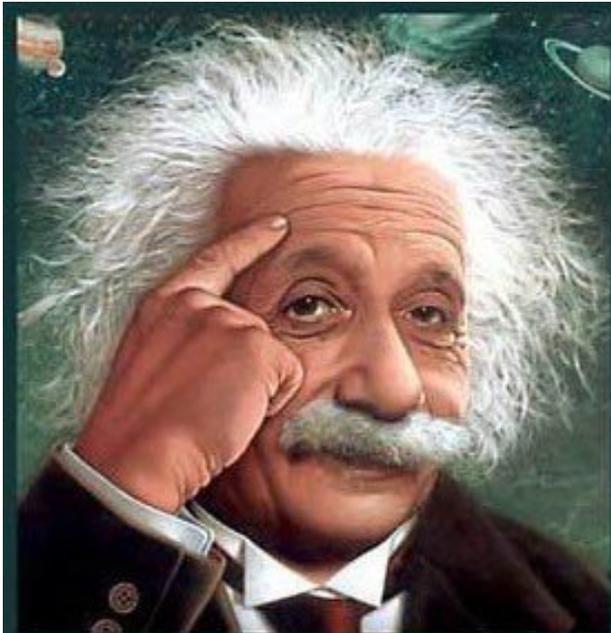
Voilà. The wallpaper folder is back in my home directory. We can attach a second SATA hard drive and add mirror capabilities by using a series of `pfexec` commands to replicate the first drive to the second one. Or, we can use the time slider GUI to

use the second drive for ZFS snapshots. For more guidance on using ZFS, consult the [Oracle Solaris ZFS Administration Guide](#).

Although the Mozilla applications are dated, (Firefox is version 3.6.12 and Thunderbird is version 3.1.4), and the choice of office applications is slim, I find OpenIndiana a pleasure to use. With the familiar Gnome 2.30.2 desktop environment, the very Synaptic-like package manager GUI and the included system tools, it feels much like a Linux system. That is, until you consider the “back in time” capabilities of ZFS and Time Slider and the advanced troubleshooting capabilities of DTrace. This OS is running with only 1GB of system RAM and a 20GB hard drive. `df /` shows only 19% of openindiana-1's `rpool` in use. And, although the previous and current OpenIndiana versions are both listed as alpha releases, the OS is extremely stable, if not yet feature complete. I experienced no mouse, keyboard or window drawing lag times whatsoever. None of the applications ever crashed. And with ZFS, file system checks are, hopefully, a thing of the past.



**International Community  
PCLinuxOS Sites**



It's easier than  $E=mc^2$   
It's elemental  
It's light years ahead  
It's a wise choice  
It's Radically Simple  
It's ...



Support PCLinuxOS! Get Your Official  
**PCLinuxOS**  
Merchandise Today!

# More Screenshot Showcase



Top Left: Posted by *la\_monda*, February 16, 2012, running LXDE.  
Bottom Left: Posted by *Crow*, February 6, 2012, running KDE4.



Top Right: Posted by *parnote*, February 17, 2012, running Xfce.  
Bottom Right: Posted by *LKJ*, February 5, 2012, running Openbox.



# 2012

## MARCH

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



# YOUNG-POLACK