# The PCLinxOS magazine

Volume 154



November, 2019

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Short Topix: Kernel Lockdown **Feature Coming To Linux** 

De-Googling Yourself, Part 6

Casual Python, Part 10

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# The **PCLinuxOS** magazine

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

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# From The Chief Editor's Desk ...

Halloween was a HUGE affair at our house, as I suppose it would be in anyone's house where a three and six year old reside. The hospital where I work hosted a "Trunk And Treat" for the kids in the employee parking lot. Lots of candy to be had there. Then, the Kansas City Zoo hosted a "Boo At The Zoo" Halloween celebration. Lots more candy to be had there, too. And then, the kids went Trick-or-Treating around the neighborhood on Halloween. All totalled, the kids ended up with way, way more candy than is healthy. Without a doubt, I'll be taking some of those "unhealthy" treats into work to share with my co-workers in a few weeks, who will likely devour them in less than a day. There's no need to "ask" the kids. The candy will simply just disappear.

There's one thing I really dislike about the end of the year. First, we have Halloween, with all that candy. Then, less than a month later, we have Thanksgiving, with all of its heavy, carbohydrate saturated dishes. And then, less than another month later, we have Christmas, with yet another "feast" and all kinds of holiday candy and baked goods. It's no wonder that with so much gluttony in the last quarter of the year that so many people make New Year's resolutions to lose weight. It must be all that weight they put on in the final three months of the previous year. But then again, it's in our nature to fatten up for the winter, in order to help insure our survival during leaner times.

My daughter seems to think (remember, she's only three years old) that candy ... num-nums to her ... and other "sweets" are THE main staple of the food pyramid. She may proclaim that she is "full" from dinner, but that "fullness" only lasts until something sweet – like desserts or candy – is offered.

We try, as much as we can, to teach the kids how to eat a healthy diet, and to make good choices. My



Boo At The Zoo, with Bumblebee (Ryan) and Princess Anna (Lexi).

son isn't obsessed with sweets. He's perfectly happy eating meat and other high protein choices (cheesy scrambled eggs and tacos are two of his favorite foods). But my daughter is all about the carbs, and the sweeter the better ... in her eyes, anyways. We try to steer her towards healthier choices, like fresh fruits over candy and pastries. Oranges, apples,

bananas, and strawberries are some of her favorites. But sometimes, you have to give in. Every child craves those delectable sweet treats. Come to think of it, I'm not a child and even I crave those sinfully sweet treats every now and again.

# From The Chief Editor's Desk ...

### About this month's cover ...

November 18th represents the 91st "birthday" of Mickey and Minnie Mouse. On that day in 1928, the first Mickey Mouse short cartoon, Steamboat Willie, was released. To pay homage to their birthday, this month's cover features two Tux penguins dressed as Mickey and Minnie Mouse re-enacting a scene from that first short cartoon. Over the years, Mickey and Minnie Mouse have become instantly recognizable among people the world over.

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









# Screenshot Showcase



Posted by Sproggy, on October 30, 2019, running Xfce.

# GIMP Tutorial: Reflective Water Effect

## by Meemaw

This is a tutorial for adding a water effect to a photo. I saw two of them on YouTube - there are actually many GIMP tutorials on YouTube, if you just search for GIMP.

I grabbed a photo of the Grand Teton mountain range from WikiMedia Commons. Most of these are free-to-use images - however, you should check on each photo to see if you need to credit the photographer/artist. This one was taken by Michael Gäbler.



I also found a photo of some water we'll use. There is a little bit of water in the photo, but I want to make more.

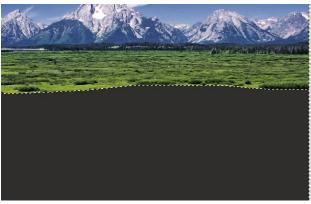
The first thing you want to do is duplicate your layer (because we'll need two). Then, you want to add an alpha channel to your top layer by right-clicking the layer and choosing "Add alpha channel". An alpha channel adds transparency to the layer, so if you delete part of that layer, as we're about to do, the layer underneath shows through. If there was no

alpha channel, and you deleted part of that layer, you would see whatever background color you have at that moment (mine would have been white).

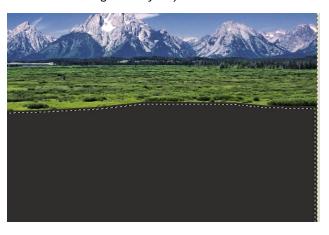
For now, turn off the visibility of your bottom layer. Then, with your top layer selected, choose your **Lasso Tool** and outline the area in your top layer photo that you want to change to water. I made mine just the slightest bit wavy at the top, since lake shores don't usually run in a straight line.



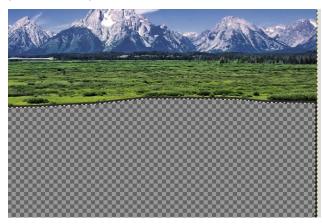
The next thing you want to do is use your **Bucket** Fill tool and fill this area with a grey. If it only fills a few little bits of the selection, go to your tool settings and choose "Fill whole selection".



I want to make a small border between the fill and the photo, so go to **Select > Shrink**, and shrink your selection about 7 pixels (although you can use whatever looks good to you.)



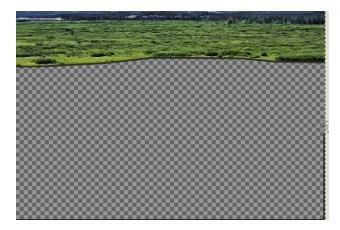
Now, press the delete key. You'll see everything within the selection is gone and that part of your photo is transparent.



Now my aim in leaving the small grey border was to have a slight change between the vegetation and the water, so the only border I need is the top one

# **GIMP Tutorial: Reflective Water Effect**

right next to the plants. Choose **Select > None** to deselect the area, then use your **Eraser Tool** to erase the sides and bottom lines.



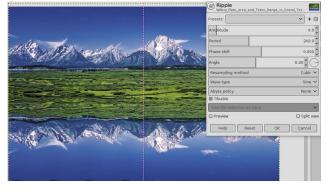
Now we're going to start the reflection. Turn on the visibility of your bottom layer, choose it, and select **Layer > Transform > Flip Vertically**. Choosing the **Move Tool**, move your layer up until the reflected part at the bottom matches up pretty well. You can see the border between them at the grey line.



Now we want to give the reflection a wavy effect, so choose **Filters > Distorts > Ripple**. In this newer version of GIMP, I hadn't used Ripple yet, but it's not hard. Make sure that **Preview** is checked, and you

can also check **Split View**, which shows a before and after view of your screen, so you can compare.

When you see a reflection in the water, it is nearly always wavy, except for those times that the water is absolutely still, and then your reflection may still be distorted. In the filter, Ripple, I used the following settings: Amplitude - 6, Period - 240, and left everything else at default. However, you can experiment to see what you think looks best.



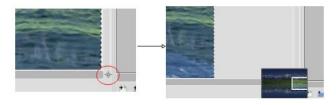
Now that we have our reflection looking more natural, we'll add some actual water to the picture. I saved a picture of water from another photo and will use that.



Add a new white layer **between** the two layers you have, and open the water picture. Copy and paste it onto the new layer. You may also have to scale it to make sure it will fill the area you have over the reflected layer before anchoring it as well. Right now it will completely cover the reflection you just worked on. With that layer still chosen, go to the layer attributes at the top of the layer list and set the opacity down to about 20, but you may want to experiment there as well. Now you can see the reflection through the water.



Before you finish, you may want to crop your project (I see some transparency at the bottom of mine). Also, our grey line is still in the middle of the picture. We want to smudge that just a bit to just make a slight shadow between the scenery and the reflection. You might have to zoom in to do that. Every time I'm zoomed in, working on something, I want to look past the edge of my project, and sometimes GIMP won't let me. However, see that plus sign in the bottom right corner of your canvas? Grab and hold that and move your mouse. GIMP will move your photo however far you want to move it, giving you a view of the edge (and past it) that you want.



When you finish your image, and are satisfied with it, save and export it. I did two... one with the border between the picture and reflection, and one without (next page). Do yours whichever way you like best.



# **GIMP Tutorial: Reflective Water Effect**



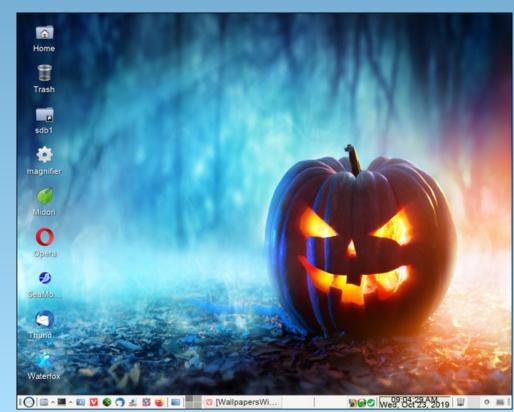




The PCLinuxOS Magazine

Created with Scribus

# Screenshot Showcase









# Short Topix: Kernel Lockdown Feature Coming To Linux

by Paul Arnote (parnote)

**Password Psychology Analyzed** 



You've heard it all before. Don't reuse passwords from site to site. Use a unique password for each site you visit. However, it seems unlikely, despite ALL of the security breaches that we constantly hear about in the news, that this unsecure habit is about to change anytime soon. Day after day, pilfered user credentials go up for sale on the "Dark Web."

LastPass (makers of the popular web browser password manager) and Lab42 partnered up to survey adults around the world to see if they could figure out why, after all the information out there about the risks of password reuse, users continue the risky behavior. The nuts and bolts of the survey was released as an infographic on the LastPass blog. The meat of the survey results is in an executive report (PDF) from LastPass and Lab42.

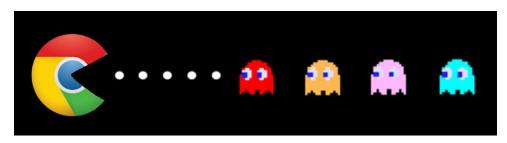
If you're the least bit concerned about online security, both the infographic and the executive report are good and fairly interesting reads. Here at The PCLinuxOS Magazine, we've covered password security several times, including strategies for how to create unique, secure passwords.

Remember that your online credentials are a form of currency, especially among the less-than-scrupulous hackers and users of the "Dark Web." Using a secure and unique password for each site you visit that you must log onto means that ONLY that particular password for that particular website is compromised in the

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event of a data breach. All of your other passwords for other websites remain secure, protecting your private online data.

Why Chrome Gobbles So Much RAM & How To Tame Its Appetite



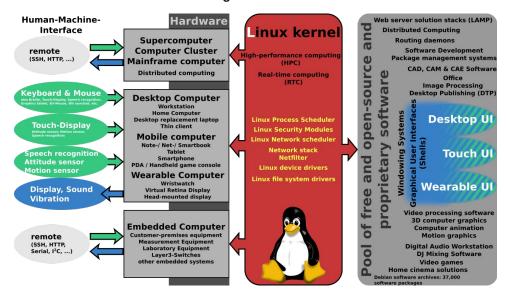
If you read my articles frequently, you know that I really don't care much for the Google Chrome web browser. Yes, I know it's the most popular web browser in the world at this time, but I abhor its voracious appetite for RAM and CPU cycles. Unless you have an abundance of RAM and a very fast CPU, using it can be slow and cumbersome.

Well, the reason Chrome consumes so much RAM and so many CPU cycles is because each tab – and in some instances certain page elements – are loaded into separate processes, each consuming those precious computer resources. It stands to reason that the more tabs you have open at any given time, the more RAM and CPU cycles Chrome is going to consume. The reason for this is so that if one tab or page element crashes, the other tabs or page elements are (hopefully) not affected. Then, Google Chrome pre-renders the pages, in an effort to enhance your web experience. THEN, you can add in poorly written browser extensions and web pages that might, over time, leak memory. The next thing you know, all of your available RAM is consumed, and your CPU is chugging along at 80%+ usage. We won't even talk about how Chrome phones home to Google with ALL of your browser activity.

Fortunately, you can quickly figure out the culprit of who's being the major memory and CPU cycle hog. Press **Shift + Esc** to display Chrome's internal task manager. Look to see which tabs and/or extensions are consuming the most memory. If it's a tab, you will know which one(s) to close. If it's an extension, you will know which one you will need to uninstall. Despite its features, it might not be worth the memory and CPU cycle drain.

According to an article on Lifehacker, there are also some extensions that will help lighten the memory and CPU load for Chrome. The Great Suspender will suspend tabs after a certain amount of time of inactivity. The tabs will remain open, but will take a little extra time to display when you switch to them if they have been put into a suspended state. OneTab takes a different approach. When you have a bunch of tabs opened up, hit the OneTab button. All the tabs will be closed, and a single tab will open in their place, with the URL of each of the previously opened tabs listed. You then click on the link to open select sites in a new tab, saving a tremendous amount of memory and CPU cycles. Session Buddy is another extension that allows you to categorize and save groups of tabs to make it easier to access them later.

# **Kernel Lockdown Feature Coming To Linux**



Coming to the Linux Kernel 5.4 branch, the Linux Security Module (LSM) will prevent "high level" access – in some cases, even root – from tampering with kernel functionality, according to an article on ZDnet. The feature will (at least initially) be turned off by default, because of the possibility that it might "break" existing systems.

Here's an excerpt from the description on the git.kernel.org website:

This patchset introduces an optional kernel lockdown feature, intended to strengthen the boundary between UID 0 and the kernel. When enabled, various pieces of kernel functionality are restricted. Applications that rely on low-level access to either hardware

# **Short Topix: Kernel Lockdown Feature Coming To Linux**

or the kernel may cease working as a result - therefore this should not be enabled without appropriate evaluation beforehand.

The LSM should strengthen security by widening the division between userland and the kernel. The new module should restrict certain kernel functionality, even for the root user. This should make it harder for compromised root accounts to wreak havoc on the rest of the operating system.

The LSM module has two lockdown modes. "If set to integrity, kernel features that allow userland to modify the running kernel are disabled," said Torvalds. "If set to confidentiality, kernel features that allow userland to extract confidential information from the kernel are also disabled."

The new lockdown feature got its start in the early 2010s, and was spearheaded by Matthew Garrett, now a Google engineer. The main objections to it came from Linus Torvalds, as evidenced in this 2013 article on ArsTechnica (warning: adult language at link). As a result, some Linux vendors (such as RedHat) created their own security module separate from the kernel, that ran on top of the kernel. A middle ground was reached between the parties in 2018, and work has progressed from there.

The move has been lauded by the Linux community and cybersecurity experts alike.

# Firefox Extension Hides Detection Of Private Browsing Mode



Most browsers today sport a private browsing mode, including Firefox. Users have demanded it, since little to no information from a private browsing session is saved as a permanent record. It helps insure privacy, and that users aren't

# **Short Topix: Kernel Lockdown Feature Coming To Linux**

tracked as easily from site to site to site. Some users use private browsing mode almost exclusively.

A few months back, Google Chrome developers attempted to close a loophole that allowed paywall sites and other sites to detect when a user was using private mode browsing. While initially successful, sites wishing to not allow users to use private browsing modes found other workarounds, effectively nullifying the work of the developers.

Users utilize private browsing mode for a number of reasons, the least of which is to help insure their privacy. Right or wrong, users also use – or attempt to use – private browsing mode to circumvent paywall sites that limit the number of articles a user can read without paying for a subscription. The content providers (typically newspaper and magazine sites) want to limit unfettered access without being paid. Users wanting to circumvent the paywalls liken it to finding a copy of a newspaper in a park refuse bin. They didn't pay for it, but they can still read the content. Plus, no one wants to pay for a subscription to a site that they only occasionally or sporadically read/visit.

I first found out about the Firefox **Hide Private Mode** extension from an article on gHacks. From that gHacks article:

The Firefox extension Hide Private Mode disables the workaround (that uses the IndexedDB API). All it takes is to install the browser extension in the Firefox web browser and allow it to run in private windows. Just open about:addons in Firefox, click on the Hide Private Mode extension, and switch the "Run in Private Windows" option from don't allow to allow.

Firefox also uses a similar IndexedDB API, just like Chrome. This extension blocks detection of the use of IndexedDB API to signify that the user is using private browsing mode, rendering one of the workaround detection strategies useless.

What's even better is that the extension is open source, and you can report issues, as well as download/view/contribute to the code, at its GitHub page.



# **HUGE sudo Bug Found!**



PCLinuxOS is rather unique among Linux distros in that it does not routinely use sudo to temporarily grant administrative access/rights to ordinary users. For Linux users distro hopping, the lack of the use of sudo is mystifying and puzzling. Virtually every other Linux distro supports the use of sudo. The tool (that is what sudo is, it's a tool) is available for installation from the PCLinuxOS repository, but it typically is not installed by default.

Old-Polack wrote a forum post explaining why PCLinuxOS shuns the use of sudo. We even ran that post in The PCLinuxOS Magazine as an article in the May, 2012 issue. When used as intended, sudo is usually a fairly safe tool. But, when used improperly, sudo can be a nightmare for system security.

So, when a new security bug was found in sudo (CVE-2019-14287), most PCLinuxOS users were not affected. Present in versions of sudo *prior* to 1.8.28 (which is also the latest version available in the PCLinuxOS version), setting sudo to execute as user -1 or 4294967295 treated the user as user 0, or the root user.

According to an article on The Hacker News:

Since the attack works in a specific use case scenario of the sudoers configuration file, it should not affect a large number of users. However, if you use Linux, you are still highly recommended to update sudo package to the latest version as soon as it is available.

So, if you've installed sudo in PCLinuxOS previously, be sure to run updates on your system to resolve the security issue.

# **Short Topix: Kernel Lockdown Feature Coming To Linux**

GNOME files defense against patent troll Orinda, CA – 2019/10/21 News from Gnome.org



A month ago, GNOME was hit by a patent troll for developing the Shotwell image management application. It's the first time a free software project has been targeted in this way, but we worry it won't be the last. Rothschild Patent Imaging, LLC offered to let us settle for a high five figure amount, for which they would drop the case and give us a licence to carry on developing Shotwell. This would have been simple to do so; it would have caused less work, cost less money, and provided the Foundation a lot less stress. But it also would be wrong. Agreeing to this would leave this patent live, and allow this to be used as a weapon against countless others. We will stand firm against this baseless attack, not just for GNOME and Shotwell, but for all free and open source software projects.

For these reasons, GNOME Foundation Executive Director Neil McGovern instructed our legal counsel at Shearman & Sterling to file three papers with the court in California.

First: a motion to dismiss the case outright. We don't believe that this is a valid patent, or that software can or should be able to be patented in this way. We want to make sure that this patent isn't used against anyone else, ever.

Second: our answer to the claim. We don't believe that there is a case GNOME needs to answer to. We want to show that the use of Shotwell, and free software in general, isn't affected by this patent.

Third: our counterclaim. We want to make sure that this isn't just dropped when Rothschild realizes we're going to fight this.

We want to send a message to all software patent trolls out there — we will fight your suit, we will win, and we will have your patent invalidated. To do this, we need your help. Please help support the GNOME Foundation in sending a message that patent trolls should never target free software by making a donation to the GNOME Patent Troll Defense Fund. If you can't, please help spread the word with your friends on social media.



# Screenshot Showcase



Posted by present\_arms on October 8, 2019, running Trinity.

# PCLinuxOS Recipe Corner



# Spinach, Ricotta and Sausage Calzones

# Ingredients:

1 box (9 oz) frozen chopped spinach
1/2 lb ground Italian sausage, browned and drained
1 cup whole milk ricotta cheese
1 cup shredded mozzarella cheese (4 oz)
1/4 cup grated Parmesan cheese
1 teaspoon Italian seasoning
16 oz refrigerated pizza dough
1 egg, slightly beaten
Pizza sauce or marinara sauce, if desired

### **Directions:**

- 1. Heat oven to 375F. Spray cookie sheet with cooking spray.
- 2. Cook spinach as directed on box; allow to sit a few minutes until cool enough to handle. Squeeze cooked spinach between paper towels to remove excess moisture. Place spinach in large bowl. Add sausage, ricotta, mozzarella, 3 tablespoons of the Parmesan and the Italian seasoning to bowl; stir until well combined.
- 3. Divide pizza dough into 8 balls. Roll and press each ball into a circle 5 to 6 inches in diameter. Place meat mixture onto one half of each of the

balls, leaving a 1/2 inch border around the edge. Fold dough over filling; pinch and roll edges to seal in filling.

4. Transfer to cookie sheet. Brush tops of calzones with egg. Prick tops of calzones with fork to allow steam to escape.

- 5. Bake 20 to 22 minutes or until dough is golden brown, topping with remaining 1 tablespoon Parmesan cheese during last 3 minutes of baking. Cool 10 minutes on cookie sheet. Serve warm with pizza sauce.
- 6. Freezer Directions: Make as directed through step 3. Place on cookie sheet, and freeze about 4 hours or until firm. Place frozen calzones in resealable plastic freezer bag, and freeze. When ready to cook, place calzones on cookie sheet, and brush with egg. Bake 25 to 30 minutes or until dough is golden brown, topping with remaining 1 tablespoon Parmesan during last 3 minutes of baking. Serve with pizza sauce.

# **Expert Tips:**

Use ground beef or ground chicken in place of the Italian sausage.



# ms\_meme's Nook: Goin' Up To Linux

I'm goin' up to Linux babe you come too I'm goin' up to Linux babe you come too I'm goin' up to Linux Windows will not do

I'm gonna leave Windows got to get away I'm gonna leave Windows got to get away Waitin' on updatin' you know I cannot stay

Bootin' PCLOS a great design Bootin' PCLOS gonna make it mine Texstar made it made it oh so fine

We're gonna have fun no longer cry
We're gonna have fun tell Windows goodbye
You've got a new home and I've got mine
No longer roam and ain't it fine

MP3 OGG



# Internet Archive Releases 2,500 More MS-DOS Games

# by Paul Arnote (parnote)

Most of us here can remember the bunches and bunches of high quality MS-DOS games that were around in the late 80s and into the 90s. I know we all had our favorites. One of the very first games I got inextricably "hooked" on was Wolfenstein 3D, from id Software. I can't even begin to calculate how many hours I sat in front of that computer screen, much to the dismay of my then wife, playing that game.

Thus began my pseudo love affair with the games from id Software. I graduated from all things

Wolfenstein to all things Doom. Then I moved from all things Doom to all things Quake. In between, I also found games like Descent and The Daedalus Encounter to also consume large amounts of my time.

I was never much good at any of them, but they were still fun to play. To this day, while I'm definitely NOT a gamer, I find them all still fun to play. Especially the Wolfenstein games, which fit nicely with my intense interest in all things related to World War II. Even while writing this article, it was hard to pull myself away from playing Wolfenstein 3D.

Wait. Did I say "playing Wolfenstein 3D?" Yep. I sure did.

On October 13, 2019, the Internet Archive released 2,500 more old MS-DOS games online, bringing the total number of MS-DOS games to just shy of 7,000. More may come at a later date, as they figure out ways to circumvent hardware dependencies and other limitations. All of the games are playable online in an online DOSBox window, in your browser. The games, for the most part, played exceptionally well in my installation of Firefox, on the PCLinuxOS Xfce community release.

So what can you expect to find there?

All of the Wolfenstein stuff is there, including the sequels Spear of Destiny, Spear Resurrection, and Spear End of Destiny. There is a lot of Doom stuff there, including the original, Doom II, The Ultimate Doom, and Final Doom. Another id Software game there is Heretic.

If you want to awaken the inner pilot in you, Microsoft Flight Simulator is also available. I remember trying it – back in the day – and I sucked at it worse than I did the run-n-gun games like Wolfenstein or Doom. Even though it's "Microsoft," this program was (and still is) a real gem. Many people have claimed over the years that this is as close as you can get to flying an actual plane without being in a plane.

Meanwhile, Interplay's Descent is available, along with its sequel, Descent II Vertigo Series. Or, maybe Donkey Kong is more of what you are looking for. Or maybe Pac-Man, or Ms. Pac-Man is more to your liking. One of my favorite arcade type games was Tempest. Another was Dig Dug. There is a PC/MS-DOS version of that game, called Digger.



# Now we'll head for downtown. Now we'll head for downtown. Separate of the se

# TombRaider Setup Start Game Sound Setup Exit

# **Internet Archive Releases 2,500 More MS-DOS Games**

Of course, who could forget the Leisure Suit Larry games, which are all also available. You can also find the original Tomb Raider. And who could ever forget the legendary Duke Nukem. There literally is something there for everyone.

Meanwhile, some of your favorites might have not yet been added. For example, I couldn't find any of the Quake games. I also couldn't find The Daedalus Encounter.

From the Internet
Archive Blog, by Jason
Scott:

The update of these MS-DOS games comes from a project called eXoDOS, which has expanded over the years in the realm of collecting DOS games for easy playability on modern systems to tracking down and capturing, as best as can be done, the full context of DOS games — from the earliest simple games in the first couple years of the IBM PC to recently created

independent productions that still work in the MS-DOS environment.

What makes the collection more than just a pile of old, nowplayable games, is how it has to take head-on the problems of software preservation and history. Having an old executable and a scanned copy of the manual represents only the first few steps. DOS has remained consistent in some ways over the last (nearly) 40 years, but a lot has changed under the hood and programs were sometimes only written to work on very specific hardware and a very specific setup. They were released, sold some amount of copies, and then disappeared off the shelves, if not everyone's memories.

It is all these extra steps, under the hood, of acquisition and configuration, that represents the hardest work by the eXoDOS project, and I recognize that long-time and Herculean effort. As a result, the eXoDOS project has over 7,000 titles they've made work dependably and consistently.

So, if you're just wanting to take a trip down memory lane, or if you just have some time to fill, head on over and play a game ... or two ... or more.





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

PCLinuxOS Magazine's searchable index!

The **PCLinuxOS** magazine

# Casual Python, Part 10

# by Peter Kelly (critter)

### Newsreader

For this, you will need to install the intriguingly named **python3-beautifulsoup4** from the repositories. This is a module used in parsing html and xml files, which is sometimes known as web scraping. You will also need python3-requests, although this is probably already installed.

I didn't know how to describe an RSS feed, although I have often used them, so I copied this from a web page.

'RSS stands for "Really Simple Syndication". It is a way to easily distribute a list of headlines, update notices, and sometimes content to a wide number of people. It is used by computer programs that organize those headlines and notices for easy reading.'

I like to keep up with the news and, living in the UK, I often use the BBC news feed. The information provided by these 'feeds' is a very short summary of an event carried by the main news services, but carries a link to more in-depth information. I decided to create an application that would show me the short version, but open up the full the full web page, pictures and all, when I clicked on an item of interest.

This is really a variation on the appfinder application. We get some info, display it, when an item of information receives a mouse click then the item is launched or, in this case, more information displayed. The information we want to display is the linked-to web page. We also need a return route to the original list.

The code is quite short at about 75 lines, and about half of this we have previously seen. There are however some new elements.

In order to display the internet information, we need one of the Qt5 interface bindings - QwebEngineView fron QtWebEnginewidgets. We can import this at the start of our code.

The requests module that we import 'requests' a web page from the internet and returns the webpage content. This we store, and then search for the information

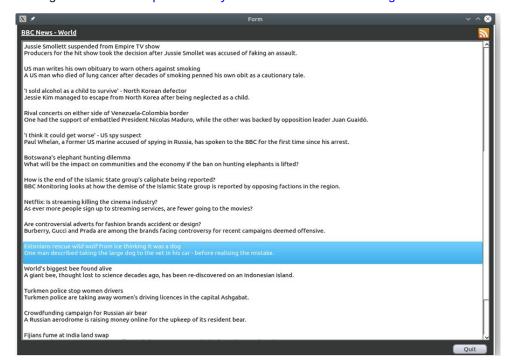
in which we are interested using the beautiful oup methods. I believe that this is a process known as "web scraping".

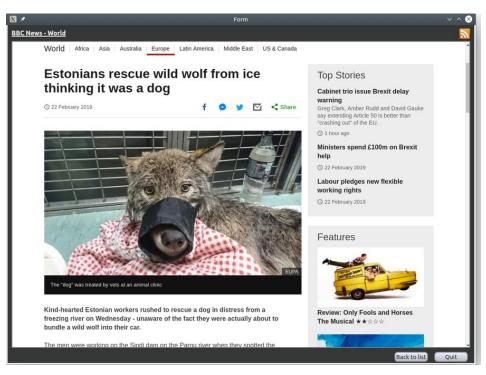
On one of my installations this code refused to run from geany, but worked fine when executed from the dolphin file manager or the command line. The problem was resolved by changing a simple setting. In Geany, open Build - Set Build commands and change 'python' to 'python3' in both the compile and execute command boxes. Don't forget to make your code executable!

The BBC feed used in the example is here.

There are lots more available, here are a few you may like to try:

UK news http://feeds.skynews.com/feeds/RSS/uk.xml
World news http://feeds.skynews.com/feeds/RSS/world.xml
US news http://feeds.skynews.com/feeds/RSS/us.xml
Technology news http://feeds.skynews.com/feeds/RSS/technology.xml
Strange news items http://feeds.skynews.com/feeds/RSS/strange.xml





# The user interface preview in Designer:



There is nothing special about the user interface. I started with a copy of the template directory, removed what I didn't need, and added the icon. I then resized the form and added/renamed items as follows. The label top left has an objectName of lbl\_title and the text that reads 'Title' will be changed at runtime to display the actual title of the page that we are viewing. The label top right has no text, just the RSS logo, which I 'borrowed' from /usr/share/icons. Two buttons with objectNames of btn\_Back and btn\_Quit I placed lower right, and the large white rectangle in the center is a stacked widget with the default objectName of stackedWidget. The first page holds a QlistWidget I named news\_list, and the second page a webEngineView widget, objectName webEngineView. These objectNames are important if the application code is to recognize them.I have added a few stylesheets to change the default appearance but this is just my personal preference. The overall size of the interface I set at 1170, 850. When you have created the interface, save it and edit update\_res.sh for the new filenames. Run the update\_res.sh script to generate reader\_ui.py.

Here is the 'closed up' code.

```
newsreader.py 🔞
      #!/usr/bin/python3
      # -*- coding: utf-8 -*-
 3
 4
      import sys
 5
      from PvOt5.OtWidgets import *
      from PyQt5.QtCore import *
 7
      from PyQt5.QtGui import *
 8
      from PyQt5.QtWebEngineWidgets import QWebEngineView
 9
      from bs4 import BeautifulSoup
10
11
      import requests
12
13
      import reader ui
14
15
    □class News(QMainWindow, reader ui.Ui Form):
17
18
         def init (self):
44
45
         def show list(self):
50
51
         def show html(self, curr):
59
60
         def keyPressEvent(self, e):
65
66
         def exitApplication(self): # Exit point
69
70
71
    77
```

### The code

Line 2 tells the python3 interpreter to use the UTF-8 encoding for text. News items often contain characters that are not defined in ascii, and this ensures that these characters will be correctly interpreted.

```
# -*- coding: utf-8 -*-
```

The BeautifulSoup module is named bs4, but we need only BeautifulSoup to be imported. See <a href="https://www.crummy.com/software/BeautifulSoup/bs4/doc/">https://www.crummy.com/software/BeautifulSoup/bs4/doc/</a> for more information.

# The init method.

```
def __init__(self):
  super(self.__class__, self).__init__()
  self.setupUi(self)
  self.btn Quit.clicked.connect(self.exitApplication)
  self.btn Quit.setToolTip('click or press the escape key to exit')
  self.btn Back.setVisible(False)
  self.btn Back.setEnabled(False)
  self.btn_Back.setToolTip(
      'click or press back arrow ← to return to the list')
  self.btn Back.clicked.connect(self.show list)
  page = requests.get("http://feeds.bbci.co.uk/news/world/RSS.xml")
  soup = BeautifulSoup(page.content, 'html.parser')
  title = soup.find('title').get text()
  self.lbl title.setText(title)
  self.url = []
  for i in range(1,26):
     trv:
       t = soup.find all('title')[i + 1].get text()
     except IndexError:
       break
     d = soup.find all('description')[i].get text()
     item = t + '\n' + d + '\n'
     self.news_list.addItem(item)
     self.url += [soup.find_all('guide')[i - 1].get_text()]
  self.news_list.itemClicked.connect(self.show_html)
```

After the usual setup code, the quit button is connected to the applicationExit method.

The first unusual code is where I set the Back button attributes Visible and Enabled to False. When we start the application, we don't want a back button, as there is nowhere to go back to. The back button is connected to the show list method.

The requests modules get method is used to request a web page from the feeds address, and the results are assigned to the name page. The result is not text but a response, an object that we pass to BeautifulSoup. We next tell BeautifulSoup to use its html.parser with page.content, and create a reference to the result using the name soup. We then use soups find method to locate text named 'title', and store that text in the variable 'title'. This text we use as the text for lbl\_title in the top left of the user interface so that we know which page we are looking at.

If the above seems complicated, it is, but this little bit of code can be used for any similar web page.

self.url = [] creates an empty list.

Having found one 'title' which is the web page title, we now need to find the second and subsequent titles which will be the article titles and the corresponding article descriptions.

As we don't know how many articles we be on the web page, we have to set a limit and test if that limit has been reached, or python will throw out an exception (an error).

The try/except loop is a standard method of dealing with exceptions. We try to do something, and if successful, we continue. If unsuccessful, an exception is raised, but here we catch it and break out of the for loop. I have set the limit at 25 items with the range function:

for i in range(1,26) # up to but not including the 26th title.

This is awkward because we want the second title, but the first description and the indexing is zero based.

1st title site title

i from range

1 2nd title article title
1st description article description
1st guide article guide

2	3rd title	article title
	2nd description	article description
	2nd guide	article guide

3 4th title article title
3rd description article description
3rd guide article guide

• • •

The title and description we name  ${\bf t}$  and  ${\bf d}$ , and store a title, a newline character, a description and another newline character in a string named item and add it to the listwidget news\_list.

### This line:

```
self.url += [soup.find_all('guide')[i - 1].get_text()]
```

adds the url for the list item to the list object we created earlier. We subtract 1 from I to get back to zero based indexing for the self.url list object.

The list widgets **itemClicked** event is connected to the show\_html method.

All of this takes a while to understand, but just think what has been achieved. We can contact any RSS feed on the internet that we have access to and retrieve as little or as much information as we want, just by clicking on a title.

# The show html method.

```
def show_html(self, curr):
    self.btn_Back.setDisabled(False)
    self.btn_Back.setVisible(True)
    new_url = QUrl(self.url[self.news_list.currentRow()])
    self.stackedWidget.setCurrentIndex(1)
    self.webEngineView.load(new_url)
```

First we unhide and enable the back button.

Next we get the URL associated with the clicked item, and we stored these as we constructed the list widget contents.

Move to page 2 of the stacked widget – the web view.

Load the url into the web view to display it.

# The show list method.

```
def show_list(self):
    self.stackedWidget.setCurrentIndex(0)
    self.btn_Back.setDisabled(True)
    self.btn Back.setVisible(False)
```

Go to page 1 of the stacked widget – the list of articles. Hide and disable the back button.

The rest of the code is identical to the code we have used many times.

# The keypressEvent method

```
def keyPressEvent(self, e):
    if e.key() == Qt.Key_Escape:
        self.exitApplication() # cancel the app
    if e.key == Qt.Key_Left:
        self.show list()
```

# The exitApplication method

```
def exitApplication(self): # Exit point
  self.close()
  sys.exit()
```

# The final code

```
if __name__ == '__main__':
    app = QApplication(sys.argv)
    form = News()
    form.show()
    app.exec_()
```

# Modules and scope

A module is a file that contains executable code that may be imported by another program file. The code may be python code, compiled C code, or one of several other types. Every file we have written so far may be used as a module.

When we imported the subprocess module, we gained access to its Popen method (along with over 30 other methods). To use Popen, we need to prefix it with the name of the module it came from: subprocess.Popen(). This is known as dotted notation, and the prefix is known as the namespace. The namespace of the current module, our applications execution code, is always named \_\_main\_\_. This is the reason for the line:

```
if __name__ == __main__:
```

Consider the following.

# my\_math.py

```
#!/usr/bin/env python3

def power(x, y): # define a function
    print('{} ** {} = {}'.format(x, y, x ** y))

if __name__ == '__main__':
    power(2, 10) # test code
    power(2, 0.5)
    power(2, -3)
```

### mathematics.py

```
class newMath: # create a class
  def __init__(self, x, y): # intialize the class
    self.x = x
    self.y = y
  def power(self): # define a class method
    print('{} raised to the power {} is {}'.format(x, y, x ** y))
def power(x, y): # define a local function
    print('{} raised to the {} th power is {}'.format(x, y, x ** y))

if __name__ == '__main__':
    x, y = 3, 4 # define 2 variables
    n = newMath(x, y) # create a class instance

my_math.power(x, y) # imported function
    n.power() # class method
    power(x, y) # local function
```

If we execute my\_math.py, the test code at the end of the file is executed.

```
my_math.py ==> 2 ** 10 = 1024
==> 2 ** 0.5 = 1.41421356237
==> 2 ** -3 = 0.125
```

However, if we import my\_math (the .py is neither required nor allowed), the test code is not executed, but we do get access to the powers function it contains.

```
mathematics.py ==> 3 ** 4 = 81
==> 3 raised to the power 4 is 81
==> 3 raised to the 4th power is 81
```

Here we have three functions/methods that perform the same calculation and give the same result, but output it differently. Python knows which function we are calling by the prefix we apply:

- my\_math.power(x, y) calls the function defined in the namespace my\_math. A
  namespace is a place where the names of functions, methods, variables and
  attributes are stored. Importing the module my\_math reads in the names of the
  functions and variables it contains and stores them in a namespace it creates
  and names my\_math.
- Variable n references an instance of the class newMath, so n.power references the method whose name is stored in the namespace named newMath.
- The function call power(x, y) is not prefixed, so python looks for a function named power first in the current namespace (\_\_main\_\_), and if not found, then it looks in a namespace named builtin that is automatically created and populated at python startup. This namespace contains all of pythons built in features.

This last complication of python looking in various places for names is something called scope. Scope is where in the code a name is valid, and python has a strict order of places to look: local, enclosing, global and builtin – strictly in that order. This is known as the LEGB rule. Global names are the names available in our current namespace, and built in I have already covered, Local names, are those declared locally in a block of code, such as a function and enclosing is the namespace of the code enclosing the current code block. An example may make this clearer.

# Scope.py

#!/usr/bin/env python3

```
v = 0
def f1():
  v = 1
  print('v in f1', v)
  def f2():
     print('v in f2', v)
  f2()
print('v', v)
f1()
f2()
Output:
v 0
v in f1 1
v in f2 1
Traceback (most recent call last):
 File "scope.py", line 15, in <module>
 f2()
NameError: name 'f2' is not defined
```

In this program, the name v is initialized to reference the integer 0, a function  $\mathbf{f1}$  is defined which in turn defines an internal function  $\mathbf{f2}$ . Firstly the value referenced by  $\mathbf{v}$  is output and we get  $\mathbf{0}$  which is the value we initialized it to in the  $\mathbf{global}$  scope. Next we call  $\mathbf{f1}$  which defines its own variable  $\mathbf{v}$ , initializes it to the integer  $\mathbf{1}$  and outputs it. Function  $\mathbf{f2}$  is then defined but this has no  $\mathbf{local}$  variable  $\mathbf{v}$  so the print statement looks in the next namespace -  $\mathbf{enclosing}$ , which is the namespace of  $\mathbf{f1}$  which encloses it. There it finds a variable  $\mathbf{v}$  which references the integer  $\mathbf{1}$  and that is output when  $\mathbf{f2}$  is subsequently called. The function  $\mathbf{f1}$  has now completed and so control is passed back to the  $\mathbf{global}$  scope. Function  $\mathbf{f2}$  is called but no name  $\mathbf{f2}$  exists in the global scope and so a traceback error is issued.

All of this may seem complicated, but it is necessary in order to keep names defined in different layers of code separated. This was demonstrated by the three different power functions called in mathematics.py.

When importing code, we have four options available to us:

• import modulename. This imports all of the names from modulename, and to

access them, we have to prefix the name with modulename using dot notation. This is the safest method.

- from modulename import methodname. This option allows us to access method name without the prefix, but has the disadvantage that there is the possibility of a name clash in the parent code, and so extra care must be taken.
- from modulename import \*. Here we gain access to all of the methods, attibutes etc. of the module without requiring dot notation to be used. This method is often frowned upon, as we don't specify the names to be imported, so increasing the risk of a name clash. This is the method I have been using to import the PyQt modules, but since the names in these modules invariably begin with an uppercase Q, the risk can easily be avoided.
- from modulename import methodname as m. When the module name or method name is long or unwieldy, this can be used to aid code readability.

As an example of the last option, the decimal module supports variable precision math.

We can do:

import decimal

2.1 + 2.7 ==> 4.800000000000001

decimal.getcontext().prec = 6

decimal.Decimal(2.1) + decimal.Decimal(2.7) ==> Decimal(4.80000')

Or we can do:

from decimal import Decimal as dec from decimal import getcontext as gc

2.1 + 2.7 ==> 4.800000000000001

gc().prec = 6

dec(2.1) + dec(2.7) ==> Decimal('4.80000')

When there is a lot of this kind of code, this can be a real timesaver and help the readability of the code.

There is one more thing I would like to explain, and that is the mysterious self

parameter that appears in classes. In mathematics.py above, I created a new class named newMath which had 2 methods: \_\_init\_\_() and power(). Classes are not used directly, they define a new type of object, just as a string or integer is an object.

To use the new object type, we have to create an instance of it just as with strings and integers.

```
s = "I am a string" # s is an instance of a string object
x = 2 # x is an instance of an integer object
n = newMath(x, y) # n is an instance of the class newMath
```

Python knows from the quotes and the literal 2 what kind of object to create in the first two examples. The newMath class expects 2 parameters, so we pass 2 variables with the instance definition. In the class code, the 2 methods need to know which instance it is dealing with, and this is put automatically in to the first parameter of each method so, although we pass only 2 variables to the class \_\_init\_\_ method, it receives 3, the class object we named n and the x, y variables. By convention, this first parameter is named self, although it could be named anything you want — but it is best to stick with convention. In a similar manner, self.x & self.y get the two variables passed in the call. The power method deals with the object referred to by self and so it receives the correct x and y values.

Here is a simpler example that creates a class named Point that represents the 2 coordinates of a point on a plane giving default values of 0 to the coordinates. It then creates 2 instances of the class: start\_point passing no variables so the default 0, 0 are used and end\_point with coordinates 3, 4. The first print statement shows that we have 2 distinct objects while the second correctly accesses the points and prints the coordinates and the third prints the result of a calculation using the coordinates in Pythagoras' theorem. (using ipython3 here)

```
In [1]: class Point:
...:    def __init__(self, x=0, y=0):
...:         self.x = x
...:         self.y = y
...:
In [2]: start_point = Point()
In [3]: end_point = Point(3, 4)
In [4]: print(start_point, end_point)
<__main__.Point    object    at     0x7f3392844f60> <__main__.Point    object     at     0x7f3392844ef0>
```

```
In [5]: print(start_point.x, start_point.y, end_point.x, end_point.y) 0 0 3 4
```

In [6]: x\_distance = end\_point.x - start\_point.x

In [7]: y\_distance = end\_point.y - start\_point.y

In [8]: distance =  $(x_distance ** 2 + y_distance ** 2) ** 0.5$ 

In [9]: print(

'The distance between start\_point and end\_point is {}'.format(distance))

The distance between start\_point and end\_point is 5.0

**Editor's Note:** All of the code for the Casual Python article series is available for download from here.



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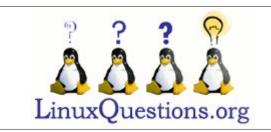
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# **Screenshot Showcase**



Posted by Meemaw on October 19, 2019, running Xfce.

# PCLinuxOS Family Member Spotlight: rolgiati

### As told to YouCanToo

What is your name/username? rolgiati (aka Ron the Frog)

How old are you? 71 last January

# Are you married, single?

Married for 24 years to a British lady I met when she worked in France. Now a widower, working towards a new relationship.

How about Kids, Grandkids (names and ages)? Boy and girl, Thomas (29) and Elizabeth (24).

# Do you have pets, what is your favorite?

2 surly cats, one 45kg/99lbs. exuberant yellow lab, one timid cocker spaniel.

Scotty (as in "I don't want to be beamed up Scotty") the lab is my favourite.

# Are you retired, still working and if working, what do you do?

Retired early, after some time in the French military, then 15 years doing R&D, and computer programming, in a big insurance company in Paris. Spent years there writing Cobol and Iverson's APL on the mainframe, and even QuickBasic on Canon portables and Dbase3 on a PC; quite varied. Then, quit to adopt two kids, then moved to Darkest Paraguay.

# Where do you call home? What is it like? IE: weather, scenery

Been living for the last 21 years in Asunción, Paraguay. It is a beautiful country. The weather is tropical, which means we don't have Summer and Winter, but North Wind and South Wind, which can

bring hot or cold weather at any time of the year. The scenery is gorgeous. Gardening here is not a matter of helping plants to grow, but of swinging mightily with a machete to keep the green stuff from smothering you.





Forget all you may have heard about life in a South American country/dictatorship. I have lived here through three coups d'état, and they were much less bother than the students riots in 1968 Paris. Life always was quiet for foreigners, as long as one kept away from the local political life. We now have democracy, together with some street muggings and

burglaries, which is why one keeps a 9mm or a .38" at hand just in case (although I never had reason to use it in 21 years).



# Where did you go to school and what is your education level?

Last schooling was the French Army "Saint Cyr Ecole Spéciale Militaire" (our answer to West Point or Sandhurst) and Maths/Physics/IT at the university in Rennes.

# What kind of things you like doing? hobbies, travel, fishing, camping?

Old cars and motorcycles, steam engines, track work on the Talyllyn Railway in Wales, model engineering; in my sinful youth, jumping out of airplanes with a parachute from a cliff-top with a hang-glider, scuba diving, pot-holing, dinghy sailing, piloting light aircraft, skiing, motorcycle riding, playing the Great Highland Bagpipes, Scottish Country dancing (where I met my late wife).

And reading, voraciously. I must have over 8000 books in the house, 95% of which I have read.



# **PCLinuxOS Family Member Spotlight: rolgiati**

# Why and when did you start using Linux?

When: In the days when Slackware became available on the Walnut Creek CDROM (and not a stack of 20-odd 3.5" floppies). It must have been 1993 or 1994, when one had to buy Mosaic to surf the web, because there were no free browsers then

Why: In four words "Blue Screen Of Death". Got fed up with the inadequacy of MS Windows, read about Linux, got the Slackware CD and was hooked. Later, I moved to Mandrake/Mandriva/Mageia, flirted with Debian (then Devuan when the Poettering Plague started spreading), and finally PCLOS where I rejoiced in finding again all the Drak/Drax tools I had been sorely missing in Debian/Devuan.

# What specific equipment do currently use with PCLinuxOS?

A desktop box with a quad-core AMD processor at 2.7 MHz, 8Gb RAM, two 500Gb and two 2Tb hard disks in RAID1 arrays. Plus the usual keyboard, mouse, sound, printer, scanner, camera, etc.

Running PCLinuxOS, and Windows 7 under VMWare VirtualBox for a few progs I sometimes need, that won't run under Wine. Several other computers in the house (each has his/her own), both Linux and MS Windows, on a wired LAN (Coax, now Cat5) behind a dedicated box running the IPCop firewall.

# Do you feel that your use of Linux influences the reactions you receive from your computer peers or family? If so, how?

It does, in that they consider me to be some kind of an IT guru, and often come to me with HW or SW problems which I try to help them with because, after all, a guru has a reputation to maintain. And I always threaten to sprinkle their MS Windows machines with Holy Water.

It helps that I started early in IT, on a vacuum tubes and 4kb ferrite torus memory IBM machine, inputoutput on punched card, no screen or keyboard of course but a big round manometre in the middle of the console, and a sign reminding the user to crashstop the machine if the pressure (or the cooling water) dropped below 6 kg/cm<sup>2</sup>.

Those were the days when first year IT students were taught how to design AND, OR, NAND and NOR gates with a few transistors and resistors.

My first personal computer was a Sinclair Spectrum+ in 1984, to which I added an Opus twin 3.5" floppy unit, later an Amstrad 1512 PC, from which I still have in my desk drawer the Intel 8088 processor which I replaced with an Nec V30 (30% speed gain) and later added 16 RAM memory chips to raise the memory from 512 to 640 kb, not to mention an arithmetic co-processor.

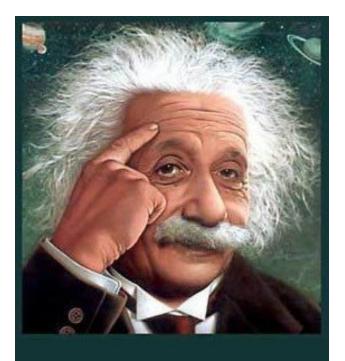
# What would you like to see happen within PCLinuxOS that would make it a better place. What are your feelings?

Not something I wish for, but something I hope I'll never see: PCLinuxOS infected with the Systemd pox.

PCLinuxOS Family Member Spotlight is an exclusive, monthly column by YouCanToo, featuring PCLinuxOS forum member. This column will allow "the rest of us" to get to know our forum family members better, and will give those featured an opportunity to share their PCLinuxOS story with the rest of the world.

If you would like to be featured in PCLinuxOS Family Member Spotlight, please send a private message to youcantoo, parnote or Meemaw in the PCLinuxOS forum expressing your interest.





It's easier than E=mc²
It's elemental
It's light years ahead
It's a wise choice
It's Radically Simple
It's ...



# by Alessandro Ebersol (Agent Smith)



Last month, we paused this series of articles to address Richard Stallman's departure from the FSF presidency. Now let's get back to our subject, which is to introduce alternative services to Google's.

This month, we'll focus on YouTube, and what alternatives there are to this service.



# YouTube, the once good video service...

Well, as I've criticized YouTube before, I won't write much about it here. Let's just punctuate the reasons that make it so bad. And, I repeat: It was good one day, but not anymore.

- \* Flawed copyright system that violates fair use most of the time.
- \* Worse, choppier and less customizable layout than before.

- \* Not respectful of its content creators.
- \* Automatically controlled by robots and not by real humans.
- \* Demonetization everywhere.
- \* Fake companies can claim your videos and get money from them without a problem.
- \* Videos that really violate YouTube community guidelines stay up to date most of the time (a video with extreme violence was on the trending page recently).
- \* Subscriptions and notifications don't work correctly.
- \* The PM feature is still there, even if it doesn't work properly.

So, after this brief introduction, let's check out what options exist for YouTube.



### Vimeo

Vimeo is the best way to put your highest quality videos online, with great tools for sharing publicly or privately.

Plus, Vimeo's iPhone app lets you upload, edit, manage and watch your videos right from your iPhone.



### **Pros**

Excellent video player. Good mobile apps. No ads. Great community. Creators can sell or rent their content via Vimeo On Demand.

### Cons

Crowded web portal. More expensive storage price tiers. Some mobile upload limitations.

Vimeo is best suited for people who prioritize high quality content over trends. Short films, animation, informative pieces and in-depth journalism are all at home on Vimeo. The consistent quality of Vimeo's offerings is a breath of fresh air after navigating the sea of YouTube hit or miss content, although you're unlikely to find the latest viral videos on Vimeo. In short, Vimeo is similar to a private art gallery compared to the public YouTube experience. Of course, the former is more expensive and less frequented, but their jobs are usually of a higher quality.



### **Peertube**

Federated video streaming platform (ActivityPub) using P2P (BitTorrent) directly in web browser with WebTorrent and Angular.

PeerTube was in alpha and became beta in March, 2019. It is free, decentralized, shared, and instance-based software. In fact, everyone can create their own instance and share their content with content from other instances. This gives you complete freedom of speech, neutral service, much greater

content diversity, and even the ability to pay videographers based on fairer and different models. But above all, offer a free alternative to GAFAMs (Google, Apple, Facebook, Amazon & Microsoft) and their model.



### **BitChute**

BitChute is a peer-to-peer video sharing platform. Its mission is to put people and freedom of speech first. It's free to participate, create and upload your own videos to share with others.

BitChute has a phenomenal community and incredible potential, but it currently has some serious disadvantages.

BitChute aims to become an uncensored protected YouTube, in part, including decentralized bit-torrent functionality. The BitChute site as a single Internet site will remain centralized until everyone can somehow be co-host, such as FreeNet or ZeroNet. This is a "decentralization" myth/failure/supervision shared with numerous other sites that claim to be free, such as Steemit, Gab, InfoGalactic, etc. Unfortunately, torrent magnets are not in all videos and unfortunately, from time to time, your video torrent remains un propagated or downloaded. This could easily be corrected if, in addition to YouTubestyle playback, BitChute also propagates all your videos. When torrents are missing or seedless, you are forced to watch the videos on their website and/or use a flash browser downloader to save your file. In addition, naming options settings for video torrent magnets are absolutely necessary. Currently, you download a video file with a short video ID alphanumeric encoded name instead of a good title, including useful descriptors such as its source (BitChute), author/channel/publisher, filename/video/title, date, and other details such as short alphanumeric code, video resolution, audio compression, and/or duration.

If BitChute really wanted to be successful, in addition to fixing the torrent issues mentioned, they would open the source project, have a forum and/or wiki for developers and users, encourage mirrored host sites, incorporate a cryptographic currency and/or reward system (which is already underway), social networking integrations and I'm sure of countless other things that other people will want, or offer.



### VidLii

Tired of all the YouTube issues? Are you tired of robots reviewing your videos for offensive content instead of real people? Do you miss YouTube's old feel with personalization, a community, and a platform you could grow on? Well, if you answered ves to any of these questions, you'll love VidLii. VidLii provides a platform for users to upload videos freely, with guidelines that keep the environment user-friendly without preventing you from having a free voice. You can upload anything from social comments to satire. Explore the community, upload videos and show yourself. Join VidLii today if you just want a sense of nostalgia or want to be part of this amazing site as you grow. From a site user, not a team member, I can say that this site is amazing and has great potential to be known as the next YouTube.

Compared to YouTube, this is the best way. Google has removed features from YouTube for some time. VidLii is bringing back these features (such as annotations (coming soon!), Community Guide, video responses (we hope a few days after this review), channel 1.0, channel 2.0, channel banners

(for partners only in August), star rating & Plus mobile channel newsletters & widgets



# **Dailymotion**

Dailymotion is a video sharing service site based in the 18th arrondissement, Paris, France, and is the world's largest video site after YouTube.

Dailymotion organizes web videos and displays them in a steady stream for viewing and enjoyment of sharing. You will appreciate its ease of use.

### **Pros**

Limit the videos: Dailymotion organizes videos by genre, so you can filter videos quickly.

Follow your favorite: If you have a favorite video source, such as Buzzfeed can follow them after that, the source appears in the Next menu for easy access.

View your history: If you forgot to tag or add a specific video to a playlist, the History feature is useful for going back and browsing all previously viewed videos. You can also remove specific videos from history.

### Cons

Login required: Dailymotion lets you watch all the videos you want without having to create an account or log in with your Facebook credentials. However, if you want to create a playlist or add a video to your favorites, you need to create an account first.



### Verdict

Dailymotion is a well-designed application to keep you up to date on the latest and greatest videos on the web. Recommended.



### **DTube**

D.Tube is the first decentralized encrypted video platform built on the STEEM Blockchain and peer-to-peer IPFS network.

The interface is identical to the current YouTube.

### Pros:

- \* It's a YouTube-like platform that people are familiar with.
- \* Can create your own dTube channel.
- \* Very easy to use and upload videos.
- \* The percentage of votes is incorporated into all users.
- \* Thumbs up on each video for voting.
- \* Rewards displayed with \$0.000 decimal places.
- \* You can hide all NSFW videos.

In DTube, there are no hidden algorithms that control the visibility or monetization of certain videos over others. All DTube data is public and can be reviewed by anyone with an internet connection.

Due to the decentralized nature of IPFS and the STEEM blockchain, DTube cannot censor videos or

enforce guidelines. Only users can censor it, through the power of their positive and negative votes.

### Cons:

- \* Features like subscribing to a channel are missing.
- \* Thumbs down is a little too visible.
- \* DTube adds "dtube-" in front of all your tags (you can edit it in steemit).
- \* Biggest complaint: It doesn't embed the video in steemit, but links dTube for viewing. Annoying.



### **Vlare**

Vlare.tv is a video sharing site created by Jan and Suduerion in an attempt to provide creators with an alternative to YouTube.

The site combines elements of modern YouTube and social media as it aims to increase interactions between creators and the people who follow their channels.

According to Plutonium Digital, Vlare would originally be a new build of VidLii. (as creator Jan also created ClipBits, VidBits and VidLii). But over time, it would evolve into a new site that aimed to be closer to the current YouTube.

When it was first announced, people interested in participating would need to sign up for VidLii, as well as request access to Alpha (via a direct, private message).

The site was launched on December 10, 2018 and has been in testing since September, 2018. The site would include non-YouTube features, including:

Groups, Talking to Friends, Watching Videos Together, and Creating Blog Posts.

On April 24, 2019, Vlare's Twitter account announced that Vanillo Sudeurion's co-founder had joined Plutonium as a content creator and site developer, where he was assigned to design the site's user interface and improve the site to as it approached its public release.

In a screenshot of Discord, Jan said he will try to get Vlare to annotate its videos, a feature that YouTube removed in January 2017.

On May 7, 2019. Vlare came out of beta and was released to the general public.



## Liveleak

LiveLeak is a London-based video sharing site. The site was founded on October 31, 2006, in part by the team responsible for the shocking website Ogrish.com, which was closed the same day.

LiveLeak aims to capture images of reality, politics, war and other world events and combine them with the power of citizen journalism. Hayden Hewitt of Manchester is the only public member of the LiveLeak founding team.

"YourSay" is a section of the site where users upload their own videos, like a vlog. Unlike YouTube, LiveLeak vlogs are more political and are known for debate.

LiveLeak currently has several categories, including Syria and Ukraine, where graphic content for various conflicts can be viewed.



Metacafe is a video sharing site specializing in short form video entertainment in the categories of movies, video games, sports, music and TV.

The company was headquartered in San Francisco, California, with an office in Los Angeles. Metacafe was acquired by Collective Digital Services in 2012 and at that time it ceased to exist as an independent company.

In its early years, Metacafe was similar to other video viewing sites such as YouTube or Dailymotion, but has since become a short-form video entertainment. The company's partners included content providers such as major movie studios, video game publishers, cable and broadcast networks, record labels and sports leagues.

The site is supported by advertising, working closely with brands in the entertainment, electronics, telecommunications, consumer packaged goods, food and beverage and automotive industries.

Metacafe used to attract more than 13 million unique monthly viewers in the US and broadcasts over 53 million videos in the US each month, according to comScore Video Metrix (March 2011). The overall audience of the site was over 40 million unique monthly viewers.

Last, but not least, there's Full30.



YouTube's recent restrictions on firearm content, which include bans on videos that link to the sale of

guns and videos that teach viewers how to install attachments like high-capacity magazines, have already had dramatic effects on the online video community's hunters, sport shooters, and weapons enthusiasts. As those creators try to figure out if they will be able to have a future on the world's top video site, several other niche players are looking to fill the void. Full30, a site specifically dedicated to firearm content, has announced an expansion, while the Utah Gun Exchange, a retail platform, has positioned itself to enter the video industry as well.

The domain was registered in 2014, and, in 2015 it was launched to the public. The company behind Full30 invited content creators to join the site and reserve their channels, since they felt Youtube censorship would entice a mass exodus from the popular video site.

One of its most prominent users is Hickok45, who began sharing his videos there after running into trouble with YouTube back in 2016. As of this post, Hickok45 has about 30,000 subscribers on Full30. On YouTube, he has nearly 4.5 million subscribers and over 1,800 videos.

Regarding censorship, a spokesperson for Full30 stated: Full30.com does not censor its content creators in any way. Full30.com does not remove videos or add videos for its content creators, only the content creators can add or remove their videos.

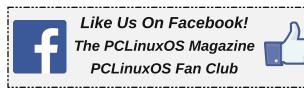
I took a look at the video site (they have many sections: blog, articles, an online shop) and it is very complete and filled with information for gun enthusiasts. But, you won't find other genres there, since it is a site specialized in firearms (I was hoping to find some FPS games... Who knows? Deals with guns too, not real, but...)

# **Summary**

Of these services, Vlare stands out, which, having been launched in 2019, is already starting to make a

considerable legion of fans, with social aspects, respect for the creators and a more accessible platform than YouTube.

Stay with us for the next chapters in this series, where I'll write about Android and finally how to effectively circumvent Google's spying services.







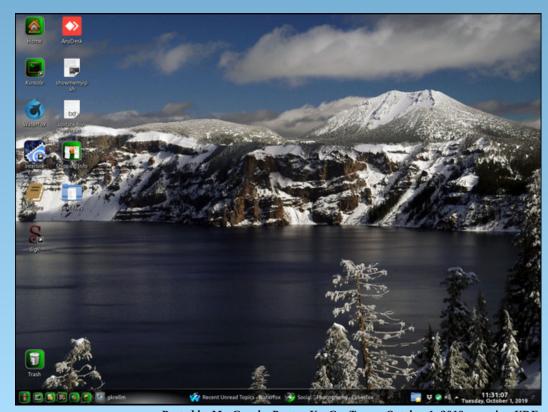


# Help PCLinuxOS Thrive & Survive

# DONATE TODAY



# Screenshot Showcase



Posted by Mr. Cranky Pants - YouCanToo on October 1, 2019, running KDE.

# Mind Your Step, Part 3

# by phorneker

Another holiday season is right around the corner. We all know what that means ... another season of shopping for holiday gifts ... and another season for cybercriminals to cash in due to the number of brick and mortar retailers disappearing this year.

On September 30th, **Forever 21** filed bankruptcy and subsequently, all of its stores closed down. **GameStop** is predicted to be the next retailer to go.

GameStop started out as Electronics Boutique back in the 1990s, which was itself spun off from Waldenbooks, of which it, competitor Borders and Builder's Square were purchased by K-Mart Corporation (pre-Sears)...and we all know what happened there. GameStop was spared its demise since it was spun off from Waldenbooks.

I remember Electronics Boutique well, because not only did it sell video games and gaming consoles, but it also sold PC software. It is there where I purchased copies of Lotus Improv, Turbo Pascal for Windows and Turbo C++ for Windows. (I was running OS/2 at that time.)

GameStop is still a functioning retailer, but for how long? Last time I was in a GameStop, they sold the major consoles and all the popular games. For a while, they were selling second hand iPhones and Android powered smartphones. Other than that, there is a 50/50 mix of new and used gaming hardware and software, including some PC-based titles that could run on **Wine**.

At times, I would find a MS-DOS based title now and then, but even *that* is becoming a rarity. (A better

source for MS-DOS titles would be a thrift store such as Goodwill.)

What could ultimately kill GameStop would be the next generation of gaming consoles, which would require a high speed internet connection to function as all games would be online games (i.e. no CD/DVD/Blu-Ray discs needed). The currently available Sony PlayStation 4 largely depends on the Internet to function.

# HTML trick that phishes for Stripe users

Bleeping Computer reported on a phishing e-mail containing a link to lure Stripe users to a fake website.

### Source:

https://www.bleepingcomputer.com/news/security/stripe-users-targeted-in-phishing-attack-that-steals-banking-info/

The way this link works is in how the HTML tag was written.

<a class="mcnButton"

# title="Review your details"

href="http://example.com/phishing page">Review your details</a>

I split this HTML tag to show you what is happening here. The *title* parameter tells the browser to display this text instead of the URL indicated in *href*.

In this example, the URL is a sample created by the staff at Bleeping Computer.

To find out the exact URL within the link, right click on the link and select "Copy Link Address", then

open a text editor (anything will do here), and paste (usually with Control-V) the URL into the editor.

(You could paste the link to the address bar in the browser, but using a text editor is much safer.)

# Where it all started for me 26 years ago!



This is a top view of the building where my information technology career began. This building and the one just to the north were constructed in 1975 at the southwest corner of Vale Park Road and Valley Drive in Valparaiso, Indiana. This building is called 600 Vale Park Plaza South and was used as a place for credit reporting and for debt collections until December 1998. (I started work here in 1993.) In 1998, Equifax made a decision to allow consumers to obtain credit reports online rather than obtain reports through the local credit bureaus. This would prove to be a big mistake as we have seen in the infamous 2017 data breach.

As a result, the building became vacant until 2001, when the building was renovated after being sold to

Purdue North Central for its Porter County campus. The building was then used as an educational facility until the merger of Purdue North Central and Purdue Calumet campuses to form what is now Purdue Northwest (https://www.pnw.edu), hence eliminating the need for the building.

This past October, Bradley Company of Merrillville, Indiana purchased the two buildings to be renovated (again) for use as a medical facility (reported to be the future Valparaiso office of **Michiana Hematology**).

### Source:

https://ci.valparaiso.in.us/AgendaCenter/ViewFile/Agenda/\_01292019-291

The other building, **600 Vale Park Road North** was home to a mental health outpatient clinic in the 1980s, and more recently, an office for General Insurance Services (agent of Traveler's Insurance which has since moved to a downtown location), and a truck driving school for C R England (https://www.crengland.com).

To this day, SuperPages.com still has Credit Bureau Services, Inc. listed at 600 Vale Park Road, twenty years after the business closed down!

**Source:** https://www.superpages.com/bp/valparaiso-in/credit-bureau-services-inc-L2709777483.htm

# Search Engines do not always get it right.

These days, I use DuckDuckGo as my go-to site for web searching.

When searching for phone numbers this way, the results you get are quite unpredictable. Even with Google, if a phone number **is known to be legitimate**, the results will show you who that number belongs to *if that number is a published number and easily available*.

The website **800notes.com** is the first website to track unsolicited phone numbers. Typically, the results would include websites such as **okcaller.com**, **callername.com**, and **mylife.com**, the latter of which is a repository that reports reputation scores ranging from 0.0 to 5.0 with anything above 4.0 being a good score.

The paid version of MyLife allows you to control what others see on your reputation report, which actually matters more than the contents of your credit report. Reputation scores lower if you have public records on file regarding legal issues such as bankruptcies, lawsuits, judgments, and the like normally housed in county, state and federal facilities.

MyLife also allows you to have sensitive information **removed** from websites that have that information for sale. (I have successfully had such information removed from 16 repositories this way!)

Websites such as **ZoomInfo** get their information primarily from LinkedIn. Unfortunately, the website more often than not gets it wrong when it comes to the resulting profiles.

And then, there are **fake databases** such as **Hodges Directory** and **USPhoneBook** whose sole purpose is to mislead **skip tracers** by providing bogus information in the search results.

For those of you who do not know, **skip tracing** is a technique used by private investigators, debt collectors, or anyone looking for the whereabouts of missing people to gather as much information on the subject as possible.

This includes subscribing to paid services such as **BeenVerified**, **Intelius**, **MyLife**, and searching social media outlets such as Facebook and Twitter (whenever the Donald is not using it), as well as the standard DuckDuckGo, Google, and Bing searches.

The term skip here is derived from "skipping town",

or someone who disappears and needs to be found, especially when collecting debts owed to creditors.

**Skip tracing** is used by collection agencies whenever a debtor has given misleading, omitted, or false information to the creditor or the collection agency. Successful collections depend upon **accurate information** contained in files within the agency's database(s).

Usually this process is done during the initial period and according to procedures allowed by the Fair Debt Collection Practices Act.

# You will be surprised....

...at what you will find when you search for yourself online. There are reasons why you would want to do this.

- 1. Employers do this to get information on potential hires.
- 2. Searching for yourself gives you an idea of what your reputation is online.
- 3. The results could reveal things you may have forgotten about.
- The results could reveal inaccuracies, which unfortunately are not easy to correct, unlike a credit report.

When searching for yourself, here are some tips I have used:

- 1. If your last name is uncommon, you could simply use your last name as the sole keyword.
- 2. Try variations on spelling your name.
- 3. Enclose your name in quotes so the search engine will look **only for matches that contain the** *exact spelling* **and wording** of the inquiry.
- 4. Within the search pages, click on **Images** to view what photographs the search engine found. The results will surprise you.

On the subject of uncommon last names, the "c" in "hornecker" was dropped in the early 1900s by one branch of that family at the time of immigration to the US. As a result, there are only 78 people (including myself) with that last name (spelled without the "c") in the world the last time I performed that search.

When an image search was performed on my last name, there is a world of difference between DuckDuckGo and Google when it comes to the images revealed in the search.

Usually only the first three pages of the results matter when it comes to the search results. Why?

Because most people who perform these searches do not have the time or patience to wade through hundreds of irrelevant results just to get the results that matter.

Another reason I use DuckDuckGo is that there are no ads contained in the first page of the search results. Advertisers *pay* Google to include their websites at the top of the list. Thankfully, these results are marked as advertisements, but you have to scroll down the page to get to the first actual result.

# Before you shop online...

It is a good idea to change the passwords on all your accounts where you shop online before you do any online shopping this season. (Especially if you have an Amazon or a Wal-Mart.com account). This past month yielded a massive data breach that compromised more than 1000 online retailers in one fell swoop.

Also, keep track of **where you shop online** so you know what packages you expect to receive and from whom.

Last year, the USPS left a notice of an undeliverable package with a tracking number, but *no return address*. This was a package I did not expect to receive, and was sent *directly* from the Valparaiso, IN post office.

I simply ignored the notice and allowed the package to be sent back, and that was probably a good thing.

Mail without a return address is handled as a "dead letter". The USPS attempts to find the sender of the "dead letter" (or package), which means that a postal inspector can legally open the package or letter to find out who the sender was and what was intended to be sent.

Also, if there is no return address, **this alone should be a red flag** and the package should be handled as a suspicious package, which **should be refused**. This also means that your mailing address has been compromised in some way. Thankfully, the fact that this package got returned means the mailing address **could not be verified** (and that is a good thing).

The bottom line here is this:

Keep track of everything you purchase online and make sure that you receive the expected package(s) and only the expected package(s).

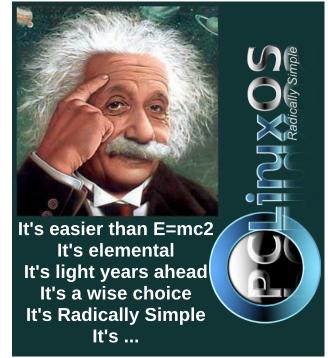
Reputable vendors will have a method of checking on your purchases, either through legitimate tracking numbers, or through a customer service number to call or website to visit.

Remember, though you are purchasing through secure websites, do not assume that you are not being tracked by someone else. Evidence of this will appear in phishing e-mails. Be sure that when you visit the retailer, manually type in the URL of the retailer and do not rely on (or even trust) links in messages received.

Of course, if you have Amazon or other retailers bookmarked in your web browser, you can use those as well, as they have the correct URL spelling.

It is also a good idea to shop through a configured VPN as well.





# PCLinuxOS Recipe Corner Bonus



# Impossibly Easy Vegetable Pie

# Ingredients:

2 cups chopped broccoli or sliced fresh cauliflowerets

1/3 cup chopped onion

1/3 cup chopped green bell pepper

1 cup shredded Cheddar cheese (4 ounces)

1/2 cup Original Bisquick™ mix \*\* See our recipe

1 cup milk

1/2 teaspoon salt

1/4 teaspoon pepper

2 eggs

### **Directions:**

- 1. Heat oven to 400F. Grease 9-inch pie plate. Heat 1 inch salted water to boil in medium saucepan. Add broccoli; cover and heat to boiling. Cook about 5 minutes or until almost tender; drain thoroughly. Stir together cooked broccoli, onion, bell pepper and cheese in pie plate.
- 2. Stir remaining ingredients until blended. Pour into pie plate.
- 3. Bake 35 to 45 minutes or until golden brown and a knife inserted in the center comes out clean. Cool 5 minutes.

# **Expert Tips:**

Grab a 10-ounce package of chopped broccoli or cauliflower from the freezer. Use it instead of the fresh broccoli or cauliflower; it doesn't need to be boiled. Just thaw, drain and add it to the pie.

For an Impossibly Easy Spinach Pie, use 1 package (10 ounces) frozen chopped spinach, thawed and squeezed to drain, for the broccoli; do not cook. Omit bell pepper. Substitute Swiss cheese for the Cheddar cheese. Add 1/4 teaspoon ground nutmeg with the pepper. Bake about 30 minutes.

Savory Impossibly Easy Pies can be covered and refrigerated up to 24 hours before baking. You may need to bake a bit longer than the recipe directs since you'll be starting with a cold pie. Watch carefully for doneness.

\*\* Recipe for our homemade Bisquick Mix.



commandlinefu.com



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# How I Used The wget Linux Command To Recover Lost Images

by Seth Kenlon (Red Hat)

Published on opensource.com, October 25, 2019 Reprinted under Creative Commons Attribution-ShareAlike 4.0 International License



In 2004, the Open Clip Art Library (OCAL) was launched as a source of free illustrations for anyone to use, for any purpose, without requiring attribution or anything in return. This site was the open source world's answer to the big stacks of clip art CDs on the shelf of every home office in the 1990s, and to the art dumps provided by the closed-source office and artistic software titles.

In the beginning, the clip art library consisted mostly of work by a few contributors, but in 2010 it went live with a brand new interactive website, allowing anyone to create and contribute clip art with a vector illustration application. The site immediately garnered contributions from around the globe, and from all manner of free software and free culture projects. A special importer for this library was even included in Inkscape.

However, in early 2019, the website hosting the Open Clip Art Library went offline with no warning or explanation. Its community, which had grown to

number in the thousands, assumed at first that this was a temporary glitch. The site remained offline, however, for over six months without any clear explanation of what had happened.

Rumors started to swell. The site was being updated ("There is years of technical debt to pay off," said site developer Jon Philips in an email). The site had fallen to rampant DDOS attacks, claimed a Twitter account. The maintainer had fallen prey to identity theft, another Twitter account claimed. Today, as of this writing, the site's one and only remaining page declares that it is in "maintenance and protected mode," the meaning of which is unclear, except that users cannot access its content.

# Recovering the commons

Sites appear and disappear over the course of time, but the loss of the Open Clip Art Library was particularly surprising to its community because it was seen as a community project. Few community members understood that the site hosting the library had fallen into the hands of a single maintainer, so while the artwork in the library was owned by everyone due to its Creative Commons 0 License, access to it was functionally owned by a single maintainer. And, because the site's community kept in touch with one another through the site, that same maintainer effectively owned the community.

When the site failed, the community lost access to its artwork as well as each other. And without the site, there was no community.

Initially, everything on the site was blocked when it went down. After several months, though, users started recognizing that the site's database was still online, which meant that a user could access an

individual art file by entering its exact URL. In other words, you couldn't navigate to the art file through clicking around a website, but if you already knew the address, then you could bring it up in your browser. Similarly, technical (or lazy) users realized it was also possible to "scrape" the site with an automated web browser like wget.

The **wget** Linux command is *technically* a web browser, although it doesn't let you browse interactively the way you do with Firefox. Instead, **wget** goes out onto the internet and retrieves a file or a collection of files and downloads them to your hard drive. You can then open those files in Firefox or a text editor, or whatever application is most appropriate, and view the content.

Usually, **wget** needs to know a specific file to fetch. If you're on Linux or macOS with **wget** installed, you can try this process by downloading the index page for example.com:

\$ wget example.org/index.html
[...]
\$ tail index.html

<body><div>
 <h1>Example Domain</h1>
 This domain is for illustrative examples in documents.

You may use this domain in examples without permission.

href="http://www.iana.org/domains/example">
More info</a>
</div></body></html>

To scrape the Open Clip Art Library, I used the --mirror option, so that I could point wget to just the directory containing the artwork so it could download everything within that directory. This action resulted in four straight days (96 hours) of constant

# **How I Used The wget Linux Command To Recover Lost Images**

downloading, ending with an excess of 100,000 SVG files that had been contributed by over 5,000 community members. Unfortunately, the author of any file that did not have proper metadata was irrecoverable because this information was locked in inaccessible files in the database, but the CC0 license meant that this issue technically didn't matter (because no attribution is required with CC0 files).

A casual analysis of the downloaded files also revealed that nearly 45,000 of them were copies of the same single file (the site's logo). This was caused by redirects pointing to the site's logo (for reasons unknown), and careful parsing could extract the original destination. Another 96 hours, and all clip art posted on OCAL up to its last day was recovered: a total of about 156,000 images.

SVG files tend to be small, but this is still an enormous amount of work that poses a few very real problems. First of all, several gigabytes of online storage would be needed so the artwork could be made available to its former community. Secondly, a means of searching the artwork would be necessary, because it's just not realistic to browse through 55,000 files manually.

It became apparent that what the community really needed was a platform.

# Building a new platform

For some time, the site Public Domain Vectors had been publishing vector art that was in the public domain. While it remains a popular site, open source users often used it only as a secondary source of art because most of the files there were in the EPS and AI formats, both of which are associated with Adobe. Both file formats can generally be converted to SVG but at a loss of features.

When the Public Domain Vectors site's maintainers (Vedran and Boris) heard about the loss of the Open Clip Art Library, they decided to create a site

oriented toward the open source community. True to form, they chose the open source Laravel framework as the backend, which provided the site with an admin dashboard and user access. The framework, being robust and well-developed, also allowed them to respond quickly to bug reports and feature requests, and to upgrade the site as needed. The site they are building is called FreeSVG.org, and is already a robust and thriving library of communal artwork.

Since then they have been uploading all of the clip art from the Open Clip Art Library, and they're even diligently tagging and categorizing the art as they go. As creators of Public Domain Vectors, they are also contributing their own images in SVG format. Their aim is to become the primary resource for SVG images with a CCO license on the internet.

# Contributing

The maintainers of FreeSVG.org are aware that they have inherited significant stewardship. They are working to title and describe all images on the site so that users can easily find artwork, and will provide this file to the community once it is ready, believing strongly that the metadata about the art belongs to the people that create and use the art as much as the art itself does. They're also aware that unforeseen circumstances can arise, so they create regular backups of their site and content, and intend to make the most recent backup available to the public, should their site fail.

If you want to add to the Creative Commons content of FreeSVG.org, then download Inkscape and start drawing. There's plenty of public domain artwork out there in the world, like historical advertisements, tarot cards, and storybooks just waiting to be converted to SVG, so you can contribute even if you aren't confident in your drawing skills. Visit the FreeSVG forum to connect with and support other contributors.

The concept of the commons is important. Creative Commons benefits everyone, whether you're a student, teacher, librarian, small business owner, or CEO. If you don't contribute directly, then you can always help promote it.

That's a strength of free culture: It doesn't just scale, it gets better when more people participate.

### Hard lessons learned

From the demise of the Open Clip Art Library to the rise of FreeSVG.org, the open culture community has learned several hard lessons. For posterity, here are the ones that I believe are most important

# Maintain your metadata

If you're a content creator, help the archivists of the future and add metadata to your files. Most image, music, font, and video file formats can have EXIF data embedded into them, and others have metadata entry interfaces in the applications that create them. Be diligent in tagging your work with your name, website or public email, and license.

# Make copies

Don't assume that somebody else is doing backups. If you care about communal digital content, then back it up yourself, or else don't count on having it available forever. The trope that *whatever's uploaded to the internet is forever* may be true, but that doesn't mean it's *available to you* forever. If the Open Clip Art Library files hadn't become secretly available again, it's unlikely that anyone would have ever successfully uncovered all 55,000 images from random places on the web, or from personal stashes on people's hard drives around the globe.



# **How I Used The wget Linux Command To Recover Lost Images**

#### Create external channels

If a community is defined by a single website or physical location, then that community is as good as dissolved should it lose access to that space. If you're a member of a community that's driven by a single organization or site, you owe it to yourselves to share contact information with those you care about and to establish a channel for communication even when that site is not available.

For example, Opensource.com itself maintains mailing lists and other off-site channels for its authors and correspondents to communicate with one another, with or without the intervention or even existence of the website.

## Free culture is worth working for

The internet is sometimes seen as a lazy person's social club. You can log on when you want and turn it off when you're tired, and you can wander into whatever social circle you want.

But in reality, free culture can be hard work. It's not hard in the sense that it's difficult to be a part of, but it's something you have to work to maintain. If you ignore the community you're in, then the community may wither and fade before you realize it.

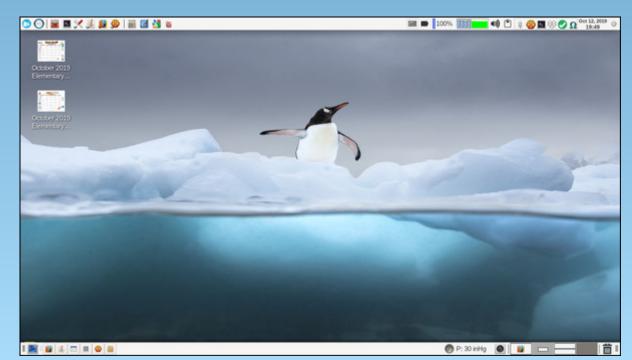
Take a moment to look around you and identify what communities you're a part of, and if nothing else, tell someone that you appreciate what they bring to your life. And just as importantly, keep in mind that you're contributing to the lives of your communities, too.

Editor's Note: Here at The PCLinuxOS Magazine, we frequently utilized Open Clip Art Library. At least, that was until they just vanished earlier in 2019 without any explanation or warning. We had wondered for a long time what happened to the site. We also wondered why images from the site would also occasionally show up in various image searches, despite no real way to access those images from the interactive website, which was down. We

heard most of the widely and wildly circulated speculations regarding what happened to the site. By far, the most common one was the DDoS theory. We figured that there had to be others who wondered about what happened to Open Clip Art Library, as well as what the disposition of all of the artwork that was on the site. Now, thanks to this article, we all have a better understanding of exactly what happened.



# **Screenshot Showcase**



Posted by parnote on October 12, 2019, running Xfce.

## by onkelho

I want to give a brief insight into the special drivers in PCLinuxOS and the handling of their installation or uninstallation.

First and foremost, the user should know that anything that was not built by himself can pose a risk. But how many of us can say that they know everything about DKMS drivers and their functions? For this reason, there are countless repositories and Linux distributions on the Internet, which are created or developed with drivers.

Here are solutions for hardware that may not yet be supported in the current kernel. It is therefore a good idea to install a test driver outside the real kernel tree, for example in

/lib/modules/KERNELVERSION/extra

or in

/lib/modules/KERNELVERSION/drivers/3rdparty

How to reach this driver and its functionality is not lost on the next kernel update.

What does this mean specifically for PCLinuxOS users?

**First**, PCLinuxOS uses dkms, a Dynamic Kernel Module System developed by Dell Inc. in 2003, for example, to provide Nvidia's additional graphics card functionality.

**Second**, for example, for PCIe or USB LAN or WIFI devices with chips from Realtek, dkms driver packages can be used:

- dkms-r8168
- dkms-rtlwifi-extended

and many more.



Synaptic (graphical package management) allows the display of all available dkms driver with the input in the search field: "dkms-".

**Third**, these can be installed as needed, usually after restarting the computer the dkms driver should be loaded instead of the kernel driver. Well, if it is certain that this dkms driver does not support the attached hardware component, the dkms driver can be uninstalled with Synaptic or apt-get, without compromising kernel functionality, and after a reboot the kernel driver should be reloaded.

For example, some network drivers, such as dkms-rtl88xxau, do not necessarily have to be restarted. They are loaded when the hardware is available. In addition, the network configuration will be restarted during the uninstallation. This leads to an automatic restoration of the internet connection, provided there is already a working connection.

**Fourth**, it is possible to adapt a dkms driver to a user's hardware device when the packager receives the required information about the hardware component.

This will be discussed in detail in the next part.

Now, here is a current list of dkms drivers installed in a test system, with a description.



## **Listing of available drivers on PCLinuxOS (dkms)**

# Package-name - Version - PackageRelease: dkms-akvcam-1.0.2-1pclos2019

# description:

akvcam, virtual camera for Linux akvcam is a fully compliant V4L2 virtual camera driver for Linux.

#### Features:

Flexible configuration with a simple INI file like. Support for map, user pointer, and read/write modes. Can cat and echo to the device. Supports emulated camera controls in capture devices (brightness, contrast, saturation, etc.). Configurable default picture in case no input signal available. The devices can't be rejected by programs that rejects M2M devices. Fully compliant with V4L2 standard. Support for LTS kernels.

# Package-name - Version - PackageRelease: dkms-applespi-0.1-4pclos2019

## # description:

input driver for the SPI touchpad / keyboard / Touchbar found in MacBooks. This dkms should work with kernel-5.1.10-pclos1!

WIP input driver for the SPI touchpad / keyboard found in the 12" MacBook (MacBook8,1 + MacBook9,1) and 2016 Macbook Pro (MacBookPro13,\*); a Touchbar driver is also available.

If you're on any MacBook or MacBook Pro other than MacBook8,1 (2015), and you're running a kernel before 4.11, then you'll need to boot the kernel with intremap=nosid.

In all cases make sure you don't have noapic in your kernel options.

!!! read in documentation /usr/share/doc/appleMBs/allMacBooks-expected-8.1 !!!

On the 2015 MacBook you need to (re)compile your kernel with CONFIG\_X86\_INTEL\_LPSS=n if running a kernel before 4.14.

And on all kernels you need ensure the spi\_pxa2xx\_platform and spi\_pxa2xx\_pci modules are loaded too (if you don't have those module, rebuild your kernel with CONFIG\_SPI\_PXA2XX=m and CONFIG\_SPI\_PXA2XX PCI=m).

hint: read more in documentation /usr/share/doc/appleMBs/\*

If you're on a MacBook8,1 (2015): read and follow in documentation /usr/share/doc/appleMBs/MacBooks8.1.

On all other MacBook's and MacBook Pros you need to instead make sure both the spi\_pxa2xx\_platform and intel\_lpss\_pci modules are loaded (if these don't exist, you need to (re)compile your kernel with CONFIG\_SPI\_PXA2XX=m and CONFIG\_MFD\_INTEL\_LPSS\_PCI=m).

This is correct on this dkms, should work with kernel-5.1.10-pclos1!

apple-ib-als disabled, ambient-light-sensor

**bbswitch**, v0.8-3pclos2019, 5.3.7-pclos1, x86 64: installed

# Package-name - Version - PackageRelease: dkms-bbswitch-v0.8-3pclos2019

# description:

bbswitch - Optimus GPU power switcher

bbswitch is a kernel module which automatically detects the required ACPI calls for two kinds of Optimus laptops: "real" (e.g. Nvidia GT 425M) and "legacy" (e.g. Nvidia GT 310M) Optimus laptops.

The universal calls should work for every laptop model supporting either Optimus calls.

This package uses DKMS to automatically build the bbswitch kernel module.

# Package-name - Version - PackageRelease: dkms-broadcom-wl-6.30.223.271-16pclos2019

# description:

Kernel module for Broadcom wireless adapters linux-4.11.

For older kernel-versions < 4.11 please use the release 4 of this package!

This package contains the proprietary driver for Broadcom wireless adapters provided by Broadcom. If installed, it will be used for these cards in preference to the third-party open source driver that requires manual installation of firmware, or ndiswrapper.

Broadcom BCM4311 (PCI IDs 14e4:4311, 14e4:4312)

Broadcom BCM4312 (PCI ID 14e4:4315)

Broadcom BCM4313 (PCI ID 14e4:4727)

Broadcom BCM4321 (PCI IDs 14e4:4328, 14e4:4329, 14e4:432a)

Broadcom BCM4322 (PCI IDs 14e4:432b, 14e4:432c, 14e4:432d)

Broadcom BCM43224 (PCI IDs 14e4:0576, 14e4:4353)

Broadcom BCM43225 (PCI ID 14e4:4357)

Broadcom BCM43227 (PCI ID 14e4:4358)

Broadcom BCM43228 (PCI ID 14e4:4359)

Broadcom BCM43142 (PCI ID 14e4:4365)

Broadcom BCM4331 (PCI ID 14e4:4331)

Broadcom BCM4352 (PCI ID 14e4:43b1)

Broadcom BCM4360 (PCI IDs 14e4:43a0, 14e4:4360)

ddcci-driver-linux, 0.3.3-1pclos2019, 5.3.7-pclos1, x86\_64: installed

# Package-name - Version - PackageRelease:

dkms-ddcci-driver-linux-0.3.3-1pclos2019

# description:

A pair of Linux kernel drivers for DDC/CI monitors.

ddcci-driver-linux

A pair of Linux kernel drivers for DDC/CI monitors. DDC/CI is a control protocol for monitor settings supported by most monitors since about 2005. It is based on ACCESS.bus (an early USB predecessor).

ddcci (bus driver)

This driver detects DDC/CI devices on DDC I<sup>2</sup>C busses, identifies them and creates corresponding devices. As this is a I<sup>2</sup>C driver it won't be autoloaded and must be manually loaded, for example by putting a line with ddcci in /etc/modules.

sysfs interface

Each detected DDC/CI device gets a directory in /sys/bus/ddcci/devices. The main device on a bus is named ddcci[I²C bus number]. Internal dependent devices are named ddcci[I²C bus number]i[hex address]. External dependent

devices are named ddcci[I2C bus number]e[hex address]

There the following files export information about the device:

### capabilities

The full ACCESS.bus capabilities string. It contains the protocol, type and model of the device, a list of all supported command codes, etc. See the ACCESS.bus spec for more information.

#### idProt

ACCESS.bus protocol supported by the device. Usually "monitor".

#### idType

ACCESS.bus device subtype. Usually "LCD" or "CRT".

#### idModel

ACCESS.bus device model identifier. Usually a shortened form of the device model name.

#### idVendor

ACCESS.bus device vendor identifier. Empty if the Identification command is not supported.

#### idModule

ACCESS.bus device module identifier. Empty if the Identification command is not supported.

#### idSerial

32 bit device number. A fixed serial number if it's positive, a temporary serial number if negative and zero if the Identification command is not supported.

#### Character device interface

For each DDC/CI device a character device in /dev/bus/ddcci/[I<sup>2</sup>C bus number]/is created. The main device on the bus is named display.

Internal dependent devices are named i[hex address]

External dependent devices are named e[hex address]

These character devices can be used to issue commands to a DDC/CI device more easily than over i2c-dev devices.

They should be opened unbuffered and may be opened with O\_EXCL if you want exclusive access. To send a command just write the command byte and the arguments with a single write() operation. The length byte and checksum are automatically calculated.

To read a response use read() with a buffer big enough for the expected answer. NOTE: The maximum length of a DDC/CI message is 127 bytes.

An Example (in Python):

```
with open('/dev/bus/ddcci/3/display', 'r+b', buffering=0) as f:
f.write(bytes([0x01, 0x12]))
response = f.read(8)
print("Contrast:", response[6] * 256 + response[7], "/",
response[4] * 256 + response[5])
```

The following error codes are used:

EAGAIN: there was no response yet or (with O\_NONBLOCK) the device was in use by another thread

EBADMSG: there was a response but the checksum didn't match

EBUSY: the device is opened exclusively by another thread (on open())

EINVAL: message too big (on write())

EIO: generic I/O failure

EMSGSIZE: the buffer was too small (on read())

ENOMEM: not enough free memory to allocate buffers (on open())

Lower layers may pass error codes not in this list like ENXIO, so be prepared for that.

ddcci-backlight (monitor backlight driver)

For each monitor that supports accessing the Backlight Level White or the Luminance property, a backlight device of type "raw" named like the corresponding ddcci device is created. You can find them in /sys/class/backlight/.

#### Limitations

Dependent device (sub devices using DDC/CI directly wired to the monitor, like Calibration devices, IR remotes, etc.) aren't automatically detected. You can force detection of internal dependent devices by setting the autoprobe\_addrs module parameter of ddcci.

You can force detection of external dependent devices by writing "ddcci-dependent [address]" into /sys/bus/i2c/?/new\_device.

There is no direct synchronization if you manually change the luminance with the buttons on your monitor, as this can only be realized through polling and some monitors close their OSD every time a DDC/CI command is received.

Monitor hotplugging is not detected. You need to detach/reattach the I<sup>2</sup>C driver or reload the module.

# Package-name - Version - PackageRelease: dkms-digimend-10.0-5pclos2019

# description: dkms drivers for a collection of graphics tablet

Important changes since v8 release:

Add support for XP-Pen G640. Fix support for Ugee M540. Fix support for Huion WH1409. Add installation of X.org configuration, which requests the Wacom driver to handle all known compatible tablets, by default. Any X.org configuration for the same tablets in /etc would still override this. Move installed hid-rebind to /lib/ude.

Important changes since v7 release:

- -Rework the UC-Logic driver to support the new Huion tablets, while keeping support of all the other tablets. This brings support for at least the following Huion tablets: H430P, H640P, H950P, and Huion New 1060 Plus.
- -Thank you to Björn Paetzel and Andrey Zabolotnyi for initial implementation and figuring out proximity detection, to Huion for tablet samples and financing the work, and to all the users for testing and bug reports!
- -Add support for Ugee G5.
- -Thank you for the tablet sample and financing, Neoblast Inc.!
- -Add support for XP-Pen Deco 01.
- -Thank you for the initial implementation and testing, kodkuce!
- -Add "dkms\_install" and "dkms\_uninstall" targets to the Makefile.

- -These should be used now for installing and uninstalling the driver on all non-Debian based distros, as well as for installing and uninstalling the development versions of the driver. Use "install" and "uninstall" only if those didn't work (and report your issue).
- -Add "dist" target to the Makefile for building tarballs for external packaging. Thank you, Hai Hoang Dang!
- -Various documentation fixes and improvements.

on Release v7

An out-of-tree kernel driver package from DIGImend. See also the list of all tablets DIGImend project has information about, in doc's of the package.

The tablets there are grouped by their OEMs. A tablet's "original model" name (if any) is the name used by the OEM or reported by the tablet itself, in its device descriptor. For the tablets with unknown name, the "original model" is specified as "PID" followed by the four-digit hexadecimal product ID.

Fixes UC-Logic tablets not working after a suspend/resume cycle.

- Add support for KYE EasyPen M406XE. Thank you, Andrey Alekseenko!
- Add support for XP-Pen G540. Thank you, slawkis!
- Add support for Ugee EX07(S)/XP-Pen star05.
- Add support for Ugee M540, which reuses VID:PID of UC-Logic WP5540U.
- Add support for Ugee 2150. Thank you, Pierre-Marc Jobin!
- Add support for ViewSonic PD1011, aka Signotec Delta PD 10.1.

Please be aware that if you have Secure Boot enabled, you will need to either disable it, or to sign the installed drivers, before they will be permitted to Load.

facetimehd, 0.1-7pclos2019, 5.3.7-pclos1, x86\_64: installed

# Package-name - Version - PackageRelease: dkms-facetimehd-0.1-7pclos2019

# description:

dkms driver for Webcam in Macbooks (Broadcom 1570 PCIe webcam)

Linux driver and firmware for the Facetime HD (Broadcom 1570) PCIe webcam found in recent Macbooks.

Note that this module requires Linux kernel 4.4 or later (it is currently unknown which earlier kernels it will work with).

According to Apple the following models contain a Facetime HD camera and should be compatible with this driver:

iMac (21,5", since mid 2011) iMac (27", since mid 2011) MacBook Air (since mid 2011) MacBook Pro (15", since early 2011) MacBook Pro (17", since early 2011) MacBook Pro (13", since early 2011) Thunderbolt display

**input-wacom**, 0.44.0-1pclos2019, 5.3.7-pclos1, x86 64: installed

# Package-name - Version - PackageRelease: dkms-input-wacom-0.44.0-1pclos2019

# description: dkms drivers for a collection of graphics tablet

-- 0.44.0

This release adds support for the following new devices:

DTK-1660E Cintiq 22 2nd gen Mobile Studio Pro

It also contains numerous bug fixes.

Aaron Armstrong Skomra (16):

Add support for the DTK-1660E on older kernels Remove oVid from Cintig 16 and DTK-1660E

release.sh: remove references to Sourceforge from project

Add support for the Cintiq 22

HID: wacom: generic: add touchring adjustment for 2nd Gen Pro Small

HID: wacom: fix bit shift for Cintig Companion 2

HID: wacom: generic: add touchring adjustment for 2nd Gen Pro Small

HID: wacom: fix bit shift for Cintig Companion 2

backport: HID: wacom: generic: add touchring adjustment for 2nd Gen Pro Small

backport: HID: wacom: fix bit shift for Cintiq Companion 2 backport: HID: wacom: fix bit shift for Cintiq Companion 2

HID: wacom: support named keys on older devices HID: wacom: correct misreported EKR ring values

backport: HID: wacom: correct misreported EKR ring values backport: HID: wacom: support named keys on older devices

input-wacom 0.44.0

Benjamin Tissoires (1):

HID: wacom: do not call hid set drvdata(hdev, NULL)

Jason Gerecke (13):

travis: Scan every commit for style issues

travis: Properly handle commits pushed/merged to master

travis: Disable warnings about duplicate "Signed-off-by" statements

2.6.32: Remove execute permission from source files travis: Move the running of checkpatch to its own stage travis: Disable some of the noisier checkpatch warnings

2.6.32: Fix incorrect case fall-through

HID: wacom: Correct distance scale for 2nd-gen Intuos devices

backport: HID: wacom: Correct distance scale for 2nd-gen Intuos devices

HID: wacom: Fix several minor compiler warnings

backport: HID: wacom: Fix several minor compiler warnings Input: wacom\_w8001 - allocate additional space for 'phys'

backport: Input: wacom w8001 - allocate additional space for 'phys'

Peter Hutterer (3):

release.sh: drop sourceforge release bits

release.sh: don't release to github in dry-run mode

release.sh: pass the module name to the github release function

Ping Cheng (5):

HID: wacom: add new MobileStudio Pro support HID: wacom: add new MobileStudio Pro support

backport: HID: wacom: add new MobileStudio Pro support

HID: wacom: add new MobileStudio Pro 13 support

backport: HID: wacom: add new MobileStudio Pro support

Thomas Gleixner (2):

treewide: Replace GPLv2 boilerplate/reference with SPDX - rule 152

backport: treewide: Replace GPLv2 boilerplate/reference with SPDX - rule 152 --

0.43.0

This release adds support for the Cintiq 16, the Intuos Pro Small 2nd generation, the Pro Pen slim, and corrects button numbering for the Intuos Pro 2nd

generation devices over Bluetooth connections. It also contains many bug fixes and build script updates.

Aaron Armstrong Skomra (17):

Add support for Cintiq 16

HID: wacom: generic: only switch the mode on devices with LEDs

HID: wacom: generic: Correct pad syncing
HID: wacom: correct touch resolution x/y typo
HID: wacom: Add 2nd gen Intuos Pro Small support

HID: wacom: generic: read HID DG CONTACTMAX from any feature report

HID: wacom: generic: support the 'report valid' usage for touch

HID: wacom: generic: read the number of expected touches on a per collection

basis

backport: Add Intuos Pro 2 S Second Generation support

backport: HID: wacom: generic: only switch the mode on devices with LEDs

backport: HID: wacom: generic: Correct pad syncing backport: HID: wacom: correct touch resolution x/y typo backport: HID: wacom: Add 2nd gen Intuos Pro Small support

backport: HID: wacom: generic: read HID\_DG\_CONTACTMAX from any feature

report

backport: HID: wacom: generic: support the 'report valid' usage for touch

backport: HID: wacom: generic: read the number of expected touches on a per

collection basis input-wacom 0.43.0

Aaron Ma (1):

HID: Fix hid report len usage

Grant Grundler (1):

HID: remove use of DRIVER\_LICENSE

Gustavo A. R. Silva (2):

HID: wacom: Mark expected switch fall-through

backport: HID: wacom: Mark expected switch fall-through

Jason Gerecke (23):

Add support for kernel module signing and enforcement

2.6.32: Limit input-wacom to only provide "new" devices to RHEL 6.10

Only use AM\_EXTRA\_RECURSIVE\_TARGETS if defined

HID: wacom: Move HID fix for AES serial number into wacom\_hid\_usage\_quirk HID: wacom: Move HID fix for AES serial number into wacom\_hid\_usage\_quirk

HID: wacom: Add support for Pro Pen slim

backport: HID: wacom: Add support for Pro Pen slim

Remove module signing support from 2.6.32 and 2.6.38 directories

Use the kernel's built-in signing framework rather than our own

Re-organize module signing section of configure.ac

Read preferred module signing algorithm from kernel configuration

Search for more potential key and cert locations

Improve tests to see if module signing is required

HID: wacom: Don't set tool type until we're in range

HID: wacom: Don't report anything prior to the tool entering range

HID: wacom: Send BTN TOUCH in response to INTUOSP2 BT eraser contact

HID: wacom: Correct button numbering 2nd-gen Intuos Pro over Bluetooth

HID: wacom: Sync INTUOSP2\_BT touch state after each frame if necessary

backport: HID: wacom: Don't set tool type until we're in range

backport: HID: wacom: Don't report anything prior to the tool entering range

backport: HID: wacom: Send BTN\_TOUCH in response to INTUOSP2\_BT eraser

contact

backport: HID: wacom: Correct button numbering 2nd-gen Intuos Pro over

Bluetooth

backport: HID: wacom: Sync INTUOSP2\_BT touch state after each frame if

necessary

Kees Cook (1):

treewide: devm kzalloc() -> devm kcalloc()

Ping Cheng (2):

2.6.32: MobileStudio Pro 13/16 and Cintiq Pro 13FHD/16UHD support 10 fingers

Recognize Scientific Linux as a variant of RHEL

-----

0.42.0

A new release of the "input-wacom" driver is now available.

This driver backports support for modern Wacom tablets to older kernels.

This release in particular fixes an issue with the DTK-2451 and DTH-2452 that affects users of Linux 3.17 or later. It also adds support for the DTU-1141B to pre-3.17 kernels. If you use any of these tablets and experience issues with the stock



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kernel driver provided by your distribution, we recommend to install this driver as a substitute.

-----

0.41.0

Latest Kernel modules form Wacom tablets (DKMS). Useful if your wacom tablet is not supported upstream yet. After a quiet two-week RC period, version 0.38.0 of the input-wacom kernel driver has now been released.

This release includes support for the soon-to-be-released Cintiq Pro 24, Cintiq Pro 32, and the recently-released Pro Pen 3D.

Improvements for the Dell Canvas monitor are also available.

A number of important bug fixes have been integrated into this release: fixes to proximity tracking, AES serial number handling, data reporting for the MobileStudio Pro/Intuos Pro/Cintiq Pro, and more.

This release also marks the final time a "2.6.36" tree will be included with the input-wacom driver.

Distributions using impacted kernels have been end-of-life for many years and maintaining the code is difficult. For the next release, the "2.6.30" tree will be compiled instead for users who still use a 2.6.36 or 2.6.37 kernel.

ndiswrapper, 1.62-4pclos2019, 5.3.7-pclos1, x86\_64: installed

# Package-name - Version - PackageRelease: dkms-ndiswrapper-1.62-4pclos2019

# description:

DKMS ndiswrapper module: USUALLY NOT NEEDED

Ndiswrapper implements the Windows kernel APIs within the Linux kernel. This allows you to use a Windows driver for a wireless network card.

DKMS package for ndiswrapper kernel module.



```
{REALTEK USB DEVICE(VENDOR ID LENOVO, 0x720c)},
nvidia-current, 430.50-1pclos2019, 5.3.7-pclos1, x86 64: installed
                                                                     {REALTEK USB DEVICE(VENDOR ID LENOVO, 0x7214)},
                                                                     {REALTEK USB DEVICE(VENDOR ID LENOVO, 0x721e)},
# Package-name - Version - PackageRelease:
                                                                     {REALTEK USB DEVICE(VENDOR ID LENOVO, 0xa359)},
dkms-nvidia-current-430.50-1pclos2019
                                                                     {REALTEK USB DEVICE(VENDOR ID LENOVO, 0xa387)},
                                                                   /* TP-LINK */
# description:
                                                                     {REALTEK USB DEVICE(VENDOR ID TPLINK, 0x0601)},
NVIDIA kernel module for GeForce 635 and later cards.
                                                                   /* Nvidia */
NVIDIA kernel module for GeForce 635 and later cards. This is to be used with
                                                                     {REALTEK USB DEVICE(VENDOR ID NVIDIA, 0x09ff)}
the x11-driver-video-nvidia-current package.
                                                                   r8168, 8.047.04-1pclos2019, 5.3.7-pclos1, x86 64: installed
r8152, 2.12-2pclos2019, 5.3.7-pclos1, x86_64: installed
                                                                   # Package-name - Version - PackageRelease:
# Package-name - Version - PackageRelease:
                                                                   dkms-r8168-8.047.04-1pclos2019
dkms-r8152-2.12-2pclos2019
                                                                   # description:
# description:
                                                                   dkms package for r8168 driver
dkms package for r8152 driver
                                                                   for finetune read on README in /usr/share/doc...
A kernel module for Realtek RTL8152/RTL8153 Based USB Ethernet Adapters,
                                                                   This package provides the r8168 kernel
                                                                                                              module(s) for Realtek
with S5 WOL enabled.
                                                                   RTL8168/RTL8111,
                                                                                         RTL8168B/RTL8111B,
                                                                                                                  RTL8168C/RTL8111C,
                                                                   RTL8168D/RTL8111D, RTL8168E/RTL8111E and RTL8168F/RTL8111F Gigabit
/* table of devices that work with this driver */
                                                                   Ethernet NICs built for the Linux kernel using the x86 64 family of processors.
/* Realtek */
 {REALTEK USB DEVICE(VENDOR ID REALTEK, 0x8050)},
                                                                   RTL8111B/RTL8168B/RTL8111/RTL8168
 {REALTEK USB DEVICE(VENDOR ID REALTEK, 0x8152)},
                                                                   RTL8111C/RTL8111CP/RTL8111D(L)
 {REALTEK USB DEVICE(VENDOR ID REALTEK, 0x8153)},
                                                                   RTL8168C/RTL8111DP/RTL8111E
 {REALTEK USB DEVICE(VENDOR ID REALTEK, 0x8156)},
                                                                   RTL8168E/RTL8111F/RTL8411
                                                                   RTL8111G/RTL8111GUS/RTL8411B(N)
/* Microsoft */
 {REALTEK USB DEVICE(VENDOR ID MICROSOFT, 0x07ab)},
                                                                   RTL8118AS
 {REALTEK USB DEVICE(VENDOR ID MICROSOFT, 0x07c6)},
/* Samsung */
                                                                   {REALTEK USB DEVICE(VENDOR ID SAMSUNG, 0xa101)},
                                                                   rtl8188eu, 5.2.2.4-1pclos2019, 5.3.7-pclos1, x86 64: installed
/* Lenovo */
 {REALTEK USB DEVICE(VENDOR ID LENOVO, 0x304f)},
                                                                   # Package-name - Version - PackageRelease:
 {REALTEK USB DEVICE(VENDOR ID LENOVO, 0x3052)},
                                                                   dkms-rtl8188eu-5.2.2.4-1pclos2019
 {REALTEK USB DEVICE(VENDOR ID LENOVO, 0x3054)},
 {REALTEK USB DEVICE(VENDOR ID LENOVO, 0x3057)},
                                                                   # description:
 {REALTEK USB DEVICE(VENDOR ID LENOVO, 0x3062)},
                                                                   dkms package for stand-alone RTL8188EU realtek driver
 {REALTEK USB DEVICE(VENDOR ID LENOVO, 0x3069)},
 {REALTEK USB DEVICE(VENDOR ID LENOVO, 0x3082)},
                                                                   A kernel module for Realtek wireless network cards based on RTL8188EU
 {REALTEK USB DEVICE(VENDOR ID LENOVO, 0x7205)},
                                                                   chipset
 {REALTEK USB DEVICE(VENDOR ID LENOVO, 0x720a)},
 {REALTEK USB DEVICE(VENDOR ID LENOVO, 0x720b)},
```

+++ to find by search on synaptic :::

```
{USB DEVICE(USB VENDER ID REALTEK,
                                            0x8179),
                                                        .driver info
RTL8188E}, /* 8188EUS */
{USB DEVICE(USB VENDER ID REALTEK,
                                            0x0179),
                                                        .driver info
                                                                      =
RTL8188E}, /* 8188ETV */
  /***** 8188EUS ******/
{USB DEVICE(0x07B8, 0x8179), .driver info = RTL8188E}, /* Abocom - Abocom
{USB DEVICE(0x0DF6, 0x0076), .driver info = RTL8188E}, /* Sitecom N150 v2
{USB DEVICE(0x2001, 0x330F), .driver info = RTL8188E}, /* DLink DWA-125
REV D1 */
{USB DEVICE(0x2001, 0x3310), .driver info = RTL8188E}, /* Dlink DWA-123
REV D1 */
{USB DEVICE(0x2001, 0x3311), .driver info = RTL8188E}, /* DLink GO-USB-
N150 REV B1 */
{USB DEVICE(0x2001, 0x331B), .driver info = RTL8188E}, /* D-Link DWA-121
rev B1 */
{USB DEVICE(0x056E, 0x4008), .driver info = RTL8188E}, /* Elecom WDC-
150SU2M */
```

{USB DEVICE(0x2357, 0x010c), .driver info = RTL8188E}, /\* TP-Link TL-

{USB DEVICE(0x2357, 0x0111), .driver info = RTL8188E}, /\* TP-Link TL-

# Package-name - Version - PackageRelease: dkms-rtl8723bu-noc-4.3.9.3-7pclos2019

# description:

WN722N v2 \*/

WN727N v5.21 \*/

dkms package for realtek 8723bu driver

A kernel module for Realtek wireless network cards based on RTL8723BU (0bda:b720)chipset 802.11bgn USB 2.0 WLAN with Bluetooth 4.0 Single-Chip Controller

+++

This driver will NOT show two devices when you run the `iwconfig` command. If you do want two devices (station and an access point) \*simultaneously\*, then install the rpm dkms-rtl8723bu.

+++

The Realtek RTL8723BU is an 802.11bgn 2.4G single-chip that integrates Wireless LAN (WLAN) and a network USB interface (USB 1.0/1.1/2.0 compatible) controller with integrated Bluetooth 2.1/3.0/4.0 controller.

It combines a WLAN MAC, a 1T1R capable WLAN baseband, and WLAN RF in a single chip.

The RTL8723BU provides a complete solution for a high-throughput performance and low power consumption integrated wireless LAN device.

Features:

56-pin QFN 802.11bgn USB 2.0 for WLAN and Bluetooth Embedded Balun Wake on Wireless LAN Antenna Diversity Bluetooth Low Energy

rtl8821ce, 1.0.6-4pclos2019, 5.3.7-pclos1, x86\_64: installed

# Package-name - Version - PackageRelease: dkms-rtl8821ce-1.0.6-4pclos2019

# description:

dkms package for realtek 8821ce driver

802.11ac/abgn PCIe WLAN with Bluetooth 4.2 Single-Chip Controller

The Realtek RTL8821CE-CG is a highly integrated single-chip that supports 1-stream 802.11ac solutions with Multi-user MIMO (Multiple-Input, Multiple-Output) and Wireless LAN (WLAN) PCI Express network interface controller with integrated Bluetooth 2.1/3.0/4.2 USB interface controller. It combines a WLAN MAC, a 1T1R capable WLAN baseband, and RF in a single chip.

The RTL8821CE-CG provides a complete solution for a high-performance integrated wireless and Bluetooth device.

Features

TFBGA 5.2x5.2mm package 802.11ac/abgn 802.11ac 1x1, Wave-2 compatible with MU-MIMO Bluetooth 4.2

Host interface
PCI Express 1.1 for WLAN controller
USB2.0 for Bluetooth controller

Hint: many newer Laptops HP have this chip

PCIe Activate State Power Management

Your distribution may come with PCIe Active State Power Management enabled by default. That may conflict with this driver. To disable: sudo \$EDITOR /etc/default/grub

Add pci=noaer at the end of GRUB\_CMDLINE\_LINUX\_DEFAULT. Line should look like this: GRUB\_CMDLINE\_LINUX\_DEFAULT="quiet splash pci=noaer"

Then update your GRUB configuration:

sudo update-grub

Reboot.

Lenovo Yoga laptops. Some new Yoga laptops (like the Yoga 530) come with rtl8821ce as the Wi-Fi/Bluetooth chip. But the ideapad-laptop module, which may come included in your distribution, may conflict with this driver. To disable: sudo modprobe -r ideapad laptop

**rtl8821cu**, 5.4.1-3pclos2019, 5.3.7-pclos1, x86 64: installed

# Package-name - Version - PackageRelease: dkms-rtl8821cu-5.4.1-3pclos2019

# description:

dkms package for realtek RTL8811CU/RTL8821CU driver with bt and firmware

Realtek RTL8811CU/RTL8821CU USB wifi adapter driver version 5.4.1 for Linux 4.4.x up to 5.4.x.

Drivers for rtl8811CU and rtl8821CU Wi-Fi chipsets.

This repository is based on source code found on a CD shipped with a rtl8811CU based card. It's updated to build on newer kernel versions.

Note: This is a USB2 only adapter, which may have bluetooth support. For specialities on this device read at the end.

build/load/function tested with v4.18.7

CDROM emulation

The device exists in various flavours, including cdrom emulation for windows knowing USB id's doing this trick (after cold boot).

0x0bda 0x1a2b

You can do a scsi cdrom eject with usb\_modeswitch -v 0bda -p 1a2b -K or eject \$DEVICE.

Bluetooth support

named as btcoexist should be provided from rtlwifi-extended, install the dkms-rtlwifi-extended first.

rtl8822bu, 5.6.1-1pclos2019, 5.3.7-pclos1, x86\_64: installed

# Package-name - Version - PackageRelease: dkms-rtl8822bu-5.6.1-1pclos2019

# description:

dkms package for realtek 8822bu driver, for Edimax EW7822ULC USB3 and Asus AC53 Nano USB 802.11ac adapter.

Updated driver for rtl88x2bu wifi adaptors based on Realtek's source distributed with myriad adapters.

Edimax EW-7822ULC ASUS AC-53 NANO D-Link DWA-182 (Revision D1 only)

and more:

{USB\_DEVICE(0x0BDA, 0xB812), .driver\_info = RTL8822B},

/\*=== Customer ID ===\*/

{USB\_DEVICE\_AND\_INTERFACE\_INFO(0x13b1, 0x0043, 0xff, 0xff, 0xff), .driver info = RTL8822B}, /\* Alpha - Alpha\*/

{USB\_DEVICE\_AND\_INTERFACE\_INFO(USB\_VENDER\_ID\_EDIMAX, 0xB822,

Oxff, Oxff, Oxff), .driver info = RTL8822B}, //EDX

{USB\_DEVICE\_AND\_INTERFACE\_INFO(USB\_VENDER\_ID\_EDIMAX, 0xC822,

Oxff, Oxff, Oxff), .driver info = RTL8822B}, //EDX

{USB\_DEVICE(0x0BDA, 0xB812), .driver\_info = RTL8822B},

{USB\_DEVICE(0x0B05, 0x1812), .driver\_info = RTL8812}, /\* ASUS - Edimax \*/

{USB\_DEVICE(0x7392, 0xB822), .driver\_info = RTL8822B}, /\* Edimax - EW-7822ULC \*/

{USB\_DEVICE(0x0b05, 0x184c), .driver\_info = RTL8822B}, /\* ASUS USB AC53 \*/

{USB\_DEVICE\_AND\_INTERFACE\_INFO(0x0b05, 0x1841, 0xff, 0xff, 0xff), .driver info = RTL8822B}, /\* ASUS AC1300 USB-AC55 B1 \*/

 $\{USB\_DEVICE(0x7392, 0xC822), .driver\_info = RTL8822B\}, /* Edimax - EW-7822UTC */$ 

{USB\_DEVICE(0x2001, 0x331c), .driver\_info = RTL8822B}, /\* D-Link - DWA-182 Rev D \*/

{USB\_DEVICE(0x2357, 0x0115), .driver\_info = RTL8822B}, /\* Archer USB T4Uv3 \*/

 $\{USB\_DEVICE(0x0E66, 0x0025), .driver\_info = RTL8822B\}, /* Hawking Tech HW12ACU */$ 

rtl88xxau, 5.6.4.1-1pclos2019, 5.3.7-pclos1, x86\_64: installed

# Package-name - Version - PackageRelease: dkms-rtl88xxau-5.6.4.1-1pclos2019

# description:

dkms package for realtek 8811/12/14/21au driver

Realtek 88xxAU driver v5.3.4 with monitor mode and frame injection. This driver supports RTL8812AU/21AU and RTL8814AU chipsets wlan-only. Supports Realtek 8811, 8812, 8814 and 8821 chipsets

rtlwifi, 0.6-12pclos2019, 5.3.7-pclos1, x86\_64: installed

# Package-name - Version - PackageRelease: dkms-rtlwifi-extended-0.6-12pclos2019

# description :

This is the extended branch of lwfingers git-hub reportlwifi-new! dkms package for realtek-wifi.

A kernel module for Realtek wireless network cards in coexistmode, now support the ant sel module option for rtl8723be. It provides drivers for:

rtl8192ce, rtl8192cu, rtl8192se, rtl8192de, rtl8188ee, rtl8192ee, rtl8723ae, rtl8723be, rtl8821ae, rtl8822be and rtl8723de

Note: If your kernel is 4.17 or newer, AND your card is not an RTL8723DE, then you should NOT be using the external driver. The built-in one is the same.

hint:

do as root:

modprobe -r <<YOUR WIRELESS DRIVER CODE>> modprobe <<YOUR WIRELESS DRIVER CODE>>

If it turns out that your system needs one of the configuration options, then do the following:

vim /etc/modprobe.d/<<YOUR WIRELESS DRIVER CODE>>.conf

There, enter the line below:

`options <<YOUR WIRELESS DRIVER CODE>> <<driver\_option\_name>>=<value>`

!!!The ONLY option you are likely to need is "ant\_sel". The penny-pinchers at some laptop vendors, mostly HP, decided to save a few cents to install only one antenna. That would not have been a problem as the driver contains the logic necessary to handle this case; however, the idiots failed to correctly encode that information in the devices ROM. Accordingly, the driver follow the ROM setting and uses the WRONG antenna. Effectively, the device has NO usable antennas. To test if this is the case on your system, please run the following commands (set 1):

DEVICE=\$(iw dev | grep Interface | cut -d " " -f2)

sudo iw dev \$DEVICE scan | egrep "SSID|signal|\(on"

If the signal for the AP to which you wish to connect is -60 or less, then you have this problem. The fix is to supply the "ant\_sel" option. Run the following commands (set 2):

su(do) su -

echo "options rtl8723be ant\_sel=2" > /etc/modprobe.d/50-rtl8723be.conf exit

If you have an RTL8723DE, make the appropriate adjustments to the above command.

At this point, do a complete shutdown!

v4l2loopback, 0.12.2-2pclos2019, 5.3.7-pclos1, x86 64: installed

# Package-name - Version - PackageRelease: dkms-v4l2loopback-0.12.2-2pclos2019

# description:

A kernel module to create V4L2 loopback devices

This module allows you to create "virtual video devices" normal (v4l2) applications will read these devices as if they were ordinary video devices, but the video will not be read from e.g. a capture card but instead it is generated by another application.

Best regards from Dresden your Thomas Fröhlich (onkelho in the forum)







# ms\_meme's Nook: Texstar Taking Care Of Business

He gets up every morning From the 'larm clock's warnin' Writing his OS with love

He is a concentrating
The users are a waiting
Push has come to shove

If his brain's on time He'll be done by nine Working hard for no pay

The OS is a joy
A little toy
Working hard day by day

He's taking care of business on line
Taking care of business on time
Taking care of business on line
Taking care of business working overtime

He is a yearning

More money to be earning

He is a pro

He will travel far That dude Texstar Always on the go

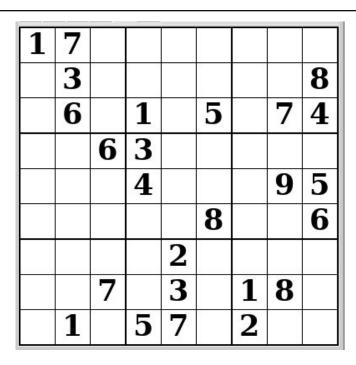
Work is never done
All the time he's having fun
Working hard for no pay

Work he won't avoid He is self-employed Working hard day by day

OGG

MP3

# PCLinuxOS Puzzled Partitions



SUDOKU RULES: There is only one valid solution to each Sudoku puzzle. The only way the puzzle can be considered solved correctly is when all 81 boxes contain numbers and the other Sudoku rules have been followed.

When you start a game of Sudoku, some blocks will be prefilled for you. You cannot change these numbers in the course of the game.

Each column must contain all of the numbers 1 through 9 and no two numbers in the same column of a Sudoku puzzle can be the same. Each row must contain all of the numbers 1 through 9 and no two numbers in the same row of a Sudoku puzzle can be the same.

Each block must contain all of the numbers 1 through 9 and no two numbers in the same block of a Sudoku puzzle can be the same.

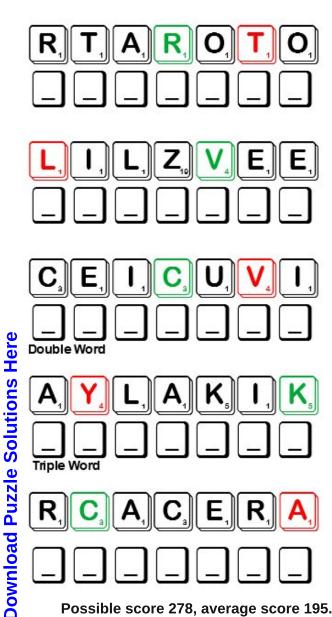


#### **SCRAPPLER RULES:**

- 1. Follow the rules of Scrabble®. You can view them here. You have seven (7) letter tiles with which to make as long of a word as you possibly can. Words are based on the English language. Non-English language words are NOT allowed.
- 2. Red letters are scored double points. Green letters are scored triple points.
- 3. Add up the score of all the letters that vou used. Unused letters are not scored. For red or green letters, apply the multiplier when tallying up your score. Next, apply any additional scoring multipliers, such as double or triple word score.
- 4. An additional 50 points is added for using all seven (7) of your tiles in a set to make your word. You will not necessarily be able to use all seven (7) of the letters in be able to use all seven (7) of the letters in your set to form a "legal" word.
- your set to form a "legal" word.

  5. In case you are having difficulty seeing the point value on the letter tiles, here is a list of how they are scored:

  0 points: 2 blank tiles
  1 point: F. A. L. O. N. R. T. L. S. U.
- 1 point: E, A, I, O, N, R, T, L, S, U
- 2 points: D, G 3 points: B, C, M, P
- 4 points: F, H, V, W, Y
- 5 points: K 8 points: J, X
- 10 points: Q, Z
- 6. Optionally, a time limit of 60 minutes should apply to the game, averaging to 12 minutes per letter tile set.
- 7. Have fun! It's only a game!



Possible score 278, average score 195.

# PCLinuxOS Word Find: November 2019 Palindromes

A palindrome is a word, phrase, or sequence that reads the same backward as forward.

Z	В	0	Р	D	S	S	U	Н	Р	N	R	٧	R	Ι	٧	R	0	Х	Υ	Α	0	Х	Т	F	Z	S	F	Р	W
																	-										Н		
В	С	Ι	F	Ν	Υ	L	Т	Н	Ι	Р	U	D	С	Χ	Α	Т	Α	J	В	Ν	0	J	W	С	0	L	J	Т	S
S	R	0	Т	Α	Т	0	R	Р	W	D	R	Υ	Н	Ν	Н	U	Ν	Ι	С	В	F	0	Q	S	R	Т	В	U	L
Т	J	Μ	D	U	Р	S	Μ	Α	S	W	Ι	Т	J	Μ	Ε	J	С	Р	Ι	K	W	R	W	Ζ	Т	Χ	С	В	Υ
S	Υ	K	F	S	R	Α	G	F	0	Μ	K	S	Ζ	Α	L	Ε	Μ	R	S	Ε	Ε	Н	Ε	0	В	Υ	Ν	F	Χ
J																											0		
																											L		
																											Ε		
																											M		
																											0		
							Τ																					X	
													-														N		
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0	Ε	S	Ν	0	Ŵ	I	W	0	Ν	Ζ	S	Χ	G	Ζ	W	Χ	R	S	Н	٧	Ν	Χ	L	0	С	W	D	Ι	D
I	Α	Q	U	N	U	U	Ι	В	R	٧	U	M	L	М	R	Р	L	S	R	F	Ε	С	G	U	Н	Р	Ι	S	С
D	S	Z	Т	Т	S	Z	G	R	Н	0	Ι	S	Ε	В	S	M	Н	R	Χ	K	Α	N	W	Ε	S	С	D	Z	M

bib civic did eve ewe eye level gag kayak madam peep noon radar refer redivider rotator sagas sees solos stats tenet toot Drawn inward wow

Dump mud Go dog I did, did I? I prefer pi.

Lepers repel Madam, I'm Adam.

Ma has a ham. My gym.

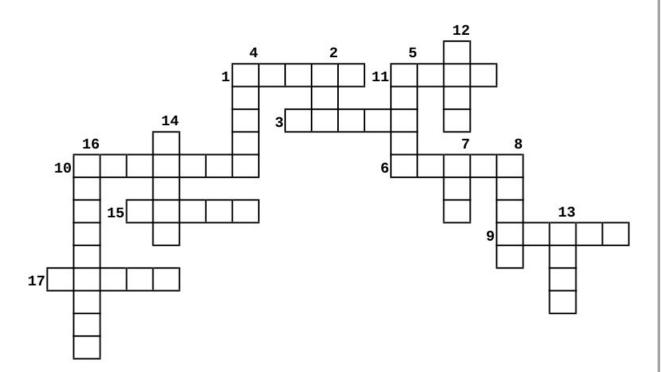
Never odd or even No lemon, no melon.

Now I won. Nurses run. Race car Top spot

Tuna nut Was it a cat I saw?

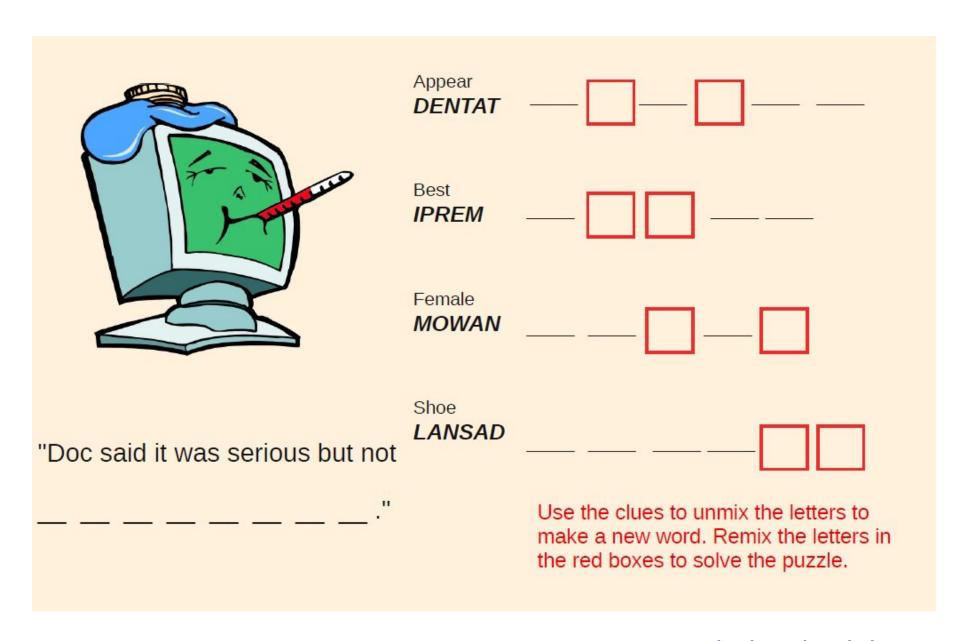
# Palindromes Crossword

A palindrome is a word, phrase, or sequence that reads the same backward as forward.



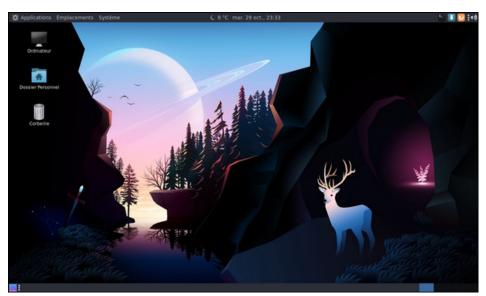
- 1. pass a matter to another person or group for a decision
- 2. a female sheep
- 3. having a flat and even surface without slopes or bumps
- a system for detecting the presence, direction, distance, and speed of aircraft, ships, and other objects
- 5. pieces of vocal or instrumental music or a dance for one performer.
- 6. a long, involved story, account, or series of incidents
- 7. a piece of cloth put in or over a persons mouth
- 8. short for statistics
- 9. a principle or belief, especially one of the main principles of a religion or philosophy
- 10. a muscle whose contraction causes or assists in the rotation of a part of the body
- 11. perceives with the eyes; discerns visually
- 12. to look quickly and furtively at something
- 13. midday
- 14. term used to address or refer to a woman in a polite or respectful way
- 15. a boat made of a light frame with a watertight covering having a small opening in the top to sit in
- 16. something that divides or apportions again
- 17. municipal, relating to a city or town, especially its administration

# Mixed-Up-Meme Scrambler



**Download Puzzle Solutions Here** 

# More Screenshot Showcase



Posted by dpascal on October 29, 2019, running Mate.



Posted by jogurtmen on October 16, 2019, running KDE.



Posted by francesco\_bat on October 23, 2019, running gtk3-mixed.



Posted by kalwisti on October 29, 2019, running Mate.