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From The Chief Editor's Desk...

After six months of dealing with this coronavirus pandemic, I’ve come to one HUGE conclusion. Americans SUCK at wearing masks! They also have zero concept of what social distancing means.

On August 28, we went for a bicycle ride. It wasn’t just an ordinary bicycle ride. We travelled from the Kansas City area, to our favorite trail just west of Des Moines, IA. Along the way, we had to make a couple of stops. We wore masks into each business we stopped at along the way. Some businesses mandated that masks be worn, and compliance was pretty good. Others, like a popular convenience store in a rural Iowa town, made no such mandate, and we were definitely in the minority. Most customers in the store were in the store without a mask. Social distancing? Fuggedaboutit! It wasn’t even a thought.

Then, the next evening, I needed to go to the grocery store to pick up a few items we had run out of or had run low on. While most customers wore masks at the grocery store, there were quite a few who wore them over their mouth, but left their nose exposed! So, yeah, they were wearing a mask, even if they were wearing it about as improperly as you can.

Wearing a mask with your mouth covered but your nose exposed is completely and utterly useless. One of my old bosses (a female) likened it to a woman wearing a brassière … with her boobs hanging out! It’s a very accurate description! Neither – the mask or the brassière – does one bit of good.

And, it’s not just what I see in stores where I witness this behavior. It’s no secret that I am an avid baseball fan. Specifically, a Kansas City Royals baseball fan, through good and bad, thick and thin. I see it among all of the participants in a baseball game, when I watch the televised games (which is most games). Managers, coaches and players are all guilty of wearing a mask over the mouth, but leaving their nose uncovered. Being a healthcare worker, it’s like the proverbial fingernails on the chalkboard for me.

I understand that wearing a mask is especially uncommon for most Americans. I understand that wearing a mask is uncomfortable and hot. I understand that wearing a mask is a real pain in the arse. I also understand that many laypersons have extreme difficulty trying to comply with recommendations to protect themselves from something they can’t even see. But can’t y’all just take a leap of faith and do what’s necessary to protect the people around you? Can’t y’all just take a leap of faith to protect yourself from an invisible threat that indiscriminately could take your life at worst, and could make your life very complicated at least? None of this is a forever thing. But for now, this is what we all need to do to soften the impact of this pandemic, and reel in the numbers of those infected.

**********

This month’s cover, created by Meemaw, celebrates September 19, 2020 as International Talk Like A Pirate Day, and September 9, 2020, as Teddy Bear Day. Tux the Pirate stands with his foot atop an open treasure chest filled with Teddy Bears.

**********

Until next month, I bid you peace, happiness, serenity, prosperity, and continued good health!

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PCLinuxOS Magazine
Linux 5.8 Kernel: Biggest Release In Years

by Paul Arnote (parnote)

“So I didn't really expect this, but 5.8 looks to be one of our biggest releases of all time,” said Linux headmaster Linus Torvalds on the Linux Kernel Mailing List when he made the announcement of the Linux Kernel 5.8 rc1 on June 14, 2020.

Later in his announcement, Torvalds went on to describe just how big of a release the 5.8 kernel was, by the numbers: over 14,000 non-merge commits (over 15,000 if you count merges), 800,000 new lines of code, and over 14,000 files changed.

Fast Forward to August 2, 2020, when Torvalds made this post to the Linux Kernel Mailing List:

So I considered making an rc8 all the way to the last minute, but decided it’s not just worth waiting another week when there aren’t any big looming worries around.

Thus, the Linux Kernel 5.8 was released. And the release is huge. Below are some of the changes and enhancements, as gleaned from multiple Linux news reports on the new kernel, and the Linux Kernel Mailing List.

Processors

• The AMD Energy Driver was merged, and exposes the Zen/Zen2 energy sensors on Linux.
• AMD Ryzen 4000 Renoir temperature and EDAC support.
• Nested AMD live migration with KVM now supported.
• PCIe NTB support for Ice Lake Xeon servers.
• New Arm SoC and platform support.
• Tightened Arm 64-bit security with now supporting Branch Target Identification (BTI) and the Shadow Call Stack.
• XSAVES supervisor states support, Memory Bandwidth Monitoring Counters, and other x86 (x86_64) updates.

Graphics

• Qualcomm Adreno 405 / 640 / 650 open-source support.
• AMDGPU TMZ support with Trusted Memory Zones for encrypted video memory.
• Intel Tiger Lake SAGV support and other Gen12 graphics updates.
• Radeon Navi/GFX10 soft recovery support.
• The Radeon driver also now better handles critical thermal faults.
• Nouveau support for NVIDIA format modifiers.

Miscellaneous Hardware Support

• Intel Tiger Lake Thunderbolt support as well as ComboPHY support for Intel's Gateway SoCs.
• Support for Thunderbolt on non-x86 systems.
• The possibility of significant power-savings for motherboards with PCIe to PCI/PCI-X bridges.
• Peer-to-peer DMA for AMD Raven and Renoir.
• Restoring the Intel Atom (AtomISP) camera driver.
• Numerous power management updates.

commandlinefu.com
Storage & File Systems

- A block device back-end for Pstore in saving oops/panic messages to disk.
- ERASE/Discard/TRIM support for all MMC hosts rather than being opt-in previously.
- F2FS LZO-RLE compression support is added for this flash optimized file-system.
- Microsoft exFAT driver improvements, courtesy of Samsung.
- SMB3 performance work for large I/O.
- Assorted fixes for EXT4.
- Improved DAX support for direct access on persistent memory storage.
- Various Btrfs improvements.

General Improvements/Enhancements

- Jitter RNG improvements and landing of the Arm CryptoCell CCTRNG driver. AMD PSP SEV-ES support is also part of the crypto updates.
- The Kernel Concurrency Sanitizer has been merged with KCSAN helping to detect race conditions in the kernel and has already been used for uncovering dozens of real bugs.
- Scheduler optimizations.
- A general notification queue initially wired up for notifying on key/keying changes.
- SELinux optimizations.
- Modernization improvements for Proofs, with it now supporting private proofs instances.

If you want to read more about what's in the new Linux 5.8 Kernel, you can look on Phoronix, ZDNet, TechRepublic, ItsFOSS, and other computing and Linux news outlets. News about the new kernel was/is everywhere.

More To Come

Closer to home, Texstar has already started working on making the new Linux kernel available to PCLinuxOS users. As of the time of the writing of this article, the new kernel is in the testing section of the PCLinuxOS repository. Most likely, it will be moved from testing to the regular repository by the time you read this.

Meanwhile, Linus Torvalds has already released Linux Kernel 5.9 (rc1) on August 16, 2020, just two weeks after releasing the 5.8 kernel to the masses.

Not resting on his laurels or accomplishments, work is continuing where work on 5.8 left off.
**Garlic Roasted Red Potatoes**

_Serves 2_

**INGREDIENTS:**

- 3/4 pound small red potatoes - about 6
- 1 tablespoon olive oil
- 2 teaspoons crushed or minced garlic - approximately 2 medium cloves
- 1 teaspoon kosher salt

**DIRECTIONS:**

- Start by preheating an oven. I use 400F (204C) convection but combine the oven with other dishes and adjust the cooking time accordingly.

- Scrub your potatoes and cut into quarters if using small red potatoes. If using bigger potatoes, keep the size about 1 inch or less.

- In a mixing bowl, combine the potatoes, 1 tablespoon olive oil, 2 teaspoons of crushed or minced garlic (2 medium cloves of fresh), and 1 teaspoon kosher salt.

- Spread evenly over a non-stick baking pan. Keep them separated so they can brown well. If you don’t have a non-stick tray then an oiled tray. I like to place the cut sides up.

- Bake for about 30 minutes until nicely browned.

**TIPS:**

For those on a reduced sodium intake you can substitute the salt for your favorite salt substitute.

Red skin potatoes are highly suggested. You can choose any potato you want, like Yukon Golds, but russets would be a poor choice.

For a bit of variety add some fresh or dried Rosemary or Thyme. Try adding some quartered red onions to the mix before roasting.

**NUTRITION:**

- Calories: 154
- Carbohydrates: 28g
- Fiber: 3g
- Sodium: 631mg
- Fat: 4g

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Screenshot Showcase

Posted by brisvegas, on July 31, 2020, running Mate.
Install OpenVPN On An Amazon Fire Stick

by Ramchu

In my last article, I showed you how to connect your PCLinuxOS computer to your Amazon Fire TV streaming device, using FileZilla and ES File Explorer.

In this article, I will show you how to install OpenVPN, and push your VPN configuration files onto your Fire TV, Fire TV Stick or Fire TV Cube.

If you search for OpenVPN on your Amazon device, you will ultimately find that there is not an OpenVPN App in Amazon’s app store.

So we are going to sideload the OpenVPN android app onto your Amazon device.

First fire up your Amazon device, and scroll across to settings.

Then scroll down and across to My Fire TV.

Click on My Fire TV, and scroll down to Developer Options.

Click Developer Options, and click ADB debugging to turn it on.
Click down to Apps from Unknown Sources.

Click, then click Turn On to confirm that you want to install outside apps.

Now click the HOME button on your remote to get back to the home screen.

Scroll to and click on the search icon.

Type in Downloader. As you type it in, search results will appear below. When you see Downloader, scroll down.

Click on Downloader, and you will be taken to this screen.

Click on Downloader, then click GET or Download.

Let it download and install. Then, click open when it appears.
When the downloader opens, you will be presented with a Quick Start guide. Give it a read, and then click the OK button to start using Downloader on your Amazon device.

At this point, I suggest that you open settings and enable Javascript, or some websites won't work correctly.

Scroll up to Home, click, then scroll up once again to get to the address bar.

Click and enter this address: http://plai.de/android/.

Scroll down and click Go.

You should then be taken to this website.
Select the APK file that you want to install. I installed the ics-openvpn-0.7.16.apk, and it works just fine.

When you click the file, the download will start.

Then you will be presented with an install prompt.

Let the install complete.

Scroll to delete and delete the apk file, to save/free up storage space.

You should now have Openvpn for Android installed on your Amazon Fire TV device.

You can open it LATER from your APPS & CHANNELS > SEE ALL.
Now on your PCLinuxOS computer...

Download your VPN service’s configuration file(s) (yourvpn.configuration.ovpn) for the server that you want to connect to for Android.

Open your favorite text editor. I used KWrite.

Create a new file, and name it login.conf.

This file will have only two lines.

On the first line Yourusername.

On the second line Yoursecurepassword.

Click Save or Save as.

Open it with your text editor and find the line auth-user-pass. Change it to auth-user-pass login.conf.

Save the changes.

Put both of these in the same directory.

Open FileZilla and connect to your Fire TV device: File > Site Manager > Fire TV Device (you may have to open ES File Explorer on your Fire TV device and re-enable View on PC).

I am sending the files to the Download folder on the Fire TV device

Open the download folder on the Fire TV Device by double clicking it.

Selecting the files in the left side of the screen are on your computer. Uploading them to your Fire TV Device should make them appear on the right side, which are the files on the device.

Go to your configuration file that you downloaded.
Now we will return to your Fire TV Device.

We now need to open the OpenVPN app.

On your Fire TV Home screen scroll down to **YOUR APPS & CHANNELS**, then across to **SEE ALL**.

Scroll down until you see the Openvpn Icon.

Click the icon to open the app.

Highlight the link in the line below **No VPN profiles defined**.

Then scroll across to **SETTINGS**, open settings.

Then scroll down to and click on **Use Internal File Browser**.

Scroll back to the top, and across to **PROFILES**.
Now we are going to import your configuration and login.conf files into Openvpn.

In the **PROFILES** window, scroll across and up to the folder icon and click it.

You should now be in the **FILE EXPLORER**.

Scroll down until you see the folder that you pushed the files into. I used the Download folder.

Click the folder to see the files.

Click the login.conf file, and in my case, the us-free-01.proton.com.ovpn files, and scroll down and click select.

This window should appear.
Scroll and **highlight the save icon** in the lower right (look close, because it's really hard to see the highlight on the icon) and click it. This saves the profile.

This window should appear.

Now you can edit the **PROFILE NAME** by scrolling to and clicking the pencil icon on the right.

You will be taken to this screen.
Now highlight and click on the profile name to CONNECT.

Notice that last line says Sequence Completed. You are now connected through your VPN service.

Use the back button on your remote to return to the Fire TV Devices home screen, and start STREAMING your favorite movies or TV shows.

To DISCONNECT from the service, just open the Openvpn app and click the profile. You will get a prompt to disconnect.
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Posted by Courageous Cat, on August 15, 2020, running Trinity.
It's a world of kernels a world of shells
A world of directories where root dwells
It is free for all easy to install
It's a Linux world after all

It's a Linux world after all
It's a Linux world after all
It's a Linux world after all
It's a Linux world

It's a world of many distros of great design
A world of the terminal with a command line
It has easy protocol with no shortfall
It's a Linux world after all

It's a Linux world after all
It's a Linux world after all
It's a Linux world after all
It's a Linux world
Short Topix: Use Secure Linux Kernel To Thwart Russian Hackers

by Paul Arnote (parnote)

Think A Smart Lock Should Be In Your Future?
Go Fish, Say Majority Of Security Experts

Are you considering using a “smart lock” to secure your house, shed, gate, etc.? You might want to reconsider, according to 73 percent of 549 responding security experts. In an article published by Forbes, their answer was clear: “Get in the seal”

The PCLinuxOS Magazine reported in the May 2020 Short Topix article about how insecure a “smart lock” was that relied on fingerprints. It has to do, mostly, with only a bare minimum of data points being employed when comparing the “unlocking” fingerprint to the one(s) stored in the device memory. So, when only checking five data points within a complex fingerprint, versus, say, comparing 10 or 20 data points, it becomes a trivial task to fool the fingerprint reader. Of course, when you increase the data points in the pattern, you make the lock more persnickety about granting access.

Locks that use fingerprints aren’t the only kind that exhibit vulnerabilities. Other “smart locks” rely on wifi or Bluetooth to lock or unlock. But what happens when your network goes down? What happens in the event of a prolonged power outage? What happens when the network you depend on is a victim of malware or ransomware? What if your “smart lock” depends on a connected smartphone app to work … and you lose your smartphone? In any/all of these cases, you are effectively locked out of your own house, shed, gate, belongings, etc. In the latter case, your smartphone in the hands of someone who may have taken it, also affords entry to areas you would prefer to keep secure.

Recently, one security expert discovered a vulnerability in a “smart lock” from U-Tec that allowed a hacker to gain access using a smartphone (which many, many people possess) and hacking the MAC address. U-Tec fixed the vulnerability as soon as they were informed, but the incident illustrates just how vulnerable a “smart lock” is.

Of course, there’s the other side of the equation, too. Most “dumb locks” (that is, those using a key and tumbler approach) aren’t necessarily the most secure things in the world, either. They are vulnerable to “lock bumping,” where a special key is used to “bump” the tumblers in a lock into yielding and unlocking. Some locks can easily be bypassed with just an aluminum pop can and a pair of scissors. Don’t believe me? Just look on YouTube, where there are TONS of videos showing and explaining the technique. And don’t think that lock picks are only available to locksmiths. In less than a minute, I can find over a thousand places on the internet to buy my own set of lock picks, and where they are more than happy and willing to sell me a set.

While “smart locks” represent some interesting and intriguing possibilities, I wouldn’t be so quick to jump on the bandwagon just yet. If it were me, I think I’d just let the technology mature a bit/lot more, and let others who adopt the technology in its early stages be the guinea pigs … and unfortunate victims.

NASA Releases New Batch Of Mars Images For Downloading

Image: NASA
Looking for some new wallpaper that is … literally … out of this world?
Short Topix: Use Secure Linux Kernel To Thwart Russian Hackers

NASA has released some stunning new images from the 15 year old Mars Reconnaissance Orbiter (MRO), and they certainly don't disappoint. Some of these images represent the most detailed shots we've ever seen of the Red Planet.

The MRO's primary mission is to study the temperatures in Mars' atmosphere, look underground using radar and detect minerals on the planet's surface. And while photography isn't necessarily a part of that primary mission, the spacecraft is probably best known for the awesome images it captures of Mars. Those images captured by the MRO have shaped and transformed our current knowledge of the planet, and what it looks like.

Included in the image collection released for the MRO's 15th anniversary is a closeup image of one of Mars' two moons, Phobos. Another image shows avalanches, while yet another shows the Mars rover, Curiosity, on the Martian surface.

U.S.: FBI, NSA Urge Linux Users To Use Secure Kernel To Thwart Russian Malware

We all know how reliable and secure Linux is, right? Well, before we go any further, let me explain one HUGE detail in this article that might not be quickly apparent: as a PCLinuxOS user, you are secure.

The vulnerability detailed in this report exists in Linux kernel 3.6 and lower/older. As a PCLinuxOS user, you are almost certainly using a much, much more recent kernel. The Linux kernel 3.7 was "retired" in March 2013, so we're talking about a quite old Linux kernel here.

The NSA and FBI issued a joint cybersecurity advisory (PDF), news release (HTML), and fact sheet (PDF) detailing the potential malware exploit, named DrovoRub, on August 13, 2020. The malware, from the state-sponsored Russian hacking group known as either Fancy Bear, Strontium, or APT 28 (take your pick ... it's the same group), gets its name from combining Drovo, which means wood or firewood, and Rub, which means to chop or cut.

The NSA and FBI have advised that Linux users should do three things to protect themselves from this malware. First, they should update to Linux Kernel 3.7 or later, "in order to take full advantage of kernel signing enforcement." Second, they should activate UEFI Secure Boot. Third, Linux users should "configure systems to load only modules with a valid digital signature, making it more difficult for an actor to introduce a malicious kernel module into the system."

So, see? As a PCLinuxOS user, you are most assuredly safe and secure. It's EXTREMELY unlikely that you are using a kernel that was retired over seven years ago. However, you know that in some dark, closeted server room somewhere in the world, sits a long forgotten Linux server that just happily keeps chugging along, day after day, year after year, without any updates being performed in years. Many server operators are reluctant to take a server down or offline that is performing its desired/assigned function for a kernel update. It's more of a "if it ain't broke, don't fix it" approach.

So, this "threat" represents the importance of two things for PCLinuxOS users. First, use the most recent kernel that functions with all of your hardware. Newer kernels resolve security vulnerabilities that might have gone unnoticed for quite some time (such as with DrovoRub). Second, keep your system as up-to-date as you possibly can, since many software updates close or resolve security vulnerabilities that are discovered after (sometimes long after) the release of the software. Do you still think it isn't a big deal? See here for all of the vulnerabilities discovered in the Linux Kernel.

The "takeaway" is quite simple. Keep. Your. Computer. Updated. Only by staying one (or a few) steps ahead of the hackers will you guarantee that your data and OS are safe.

Microsoft Tells Users They Can NEVER Uninstall Edge Browser

I remember a post in the PCLinuxOS forum several months back that stated Microsoft wanted to bring their new Chromium-based browser, Edge, to Linux. As you can imagine, the mere suggestion got a decidedly mixed reaction, with most being quite negative reactions. After all, most Linux users are Microsoft refugees, and want as little as possible to
do with the Goliath-like (some might argue Medusa-like or Hydra-like) corporation. Trust of Microsoft among Linux users is more shallow than a light coating of rain on pavement. Embrace, extend, and extinguish (EEE) is used by many, many Linux users to describe Microsoft’s recent “love” for Linux.

It seems that the negative reaction was probably the right one. Now, Windows 10 users (and even some Windows 7 holdouts) are being told by Microsoft that they will be unable to uninstall the new Edge browser, once installed. Here’s the information, directly from Microsoft’s support site:

The new version of Microsoft Edge gives users full control over importing personal data from the legacy version of Microsoft Edge. The new version of Microsoft Edge is included in a Windows system update, so the option to uninstall it or use the legacy version of Microsoft Edge will no longer be available.

According to an article from ZDNet, some users are describing the new Edge browser as malware, because of the move. Some users are fearing that the new Edge browser is stealing their Google Chrome browser information.

Does all of this sound familiar? It sure does to me. It harkens back to when Microsoft made Internet Explorer “uninstallable.” When was it? Windows 95? Windows 98? Windows XP? It’s all such a blur. Microsoft claimed it was an “integral part” of the operating system. There were court cases filed and fought, with Microsoft losing in almost every case. You would have thought that Goliath would have learned its lesson from that fiasco. It has me thinking that it’s a whole new group at Microsoft who either don’t know, weren’t around, weren’t born yet, or don’t know the history making these boneheaded moves.

Granted, Edge is a fine browser (or so I hear). It should be, based on Chromium, the open source version of Google Chrome. I actually used Chromium for a while when it was available in the

PCLinuxOS repository. Without a doubt, it’s a far cry better than Internet Explorer ever could be or was. But, to irrevocably impose the browser on unsuspecting users is an overreach of Microsoft’s near monopoly of the operating system market.

I don’t know about you, but since the announcement earlier in the month of August, my inbox has overflowed with links to articles about how to uninstall/remove the Edge browser from Window 10 systems.
Short Topix: Use Secure Linux Kernel To Thwart Russian Hackers

Do you ever wonder what will happen when there are no more people on the Earth? This article from LiveScience answers that question. It’s not a pretty picture, either, given all the trash mankind will leave behind. Just the lack of maintenance of critical infrastructure will bring about swift and sometimes catastrophic changes that will affect whatever comes after humans. We all know what happens, thanks to Chernobyl, when an area is abandoned and left to return to nature. Nature always seems to not only reclaim the area, but it also recharges and repairs the damage, sometimes quickly.

Scientists (think they) know how and when the universe comes to an end. Well, at least one scientist, anyways. No need to worry, however, as this Fox News report informs us that it won’t be for another few trillion years. The report is from the Monthly Notices of the Royal Astronomical Society journal. I know I’m just a lay person when it comes to the study of the cosmos, but the report seems, at least to me, to be lacking in what we know happens all of the time. Like, the theory of what happens to matter sucked into a black hole. Or, the fact that stellar nurseries exist all over the universe, continually giving birth to new stars and celestial bodies.

One new upstart company thinks it has come up with the world’s most comfortable N95 mask for daily use. The PurMe mask is made of soft silicone, and sports interchangeable filters, ranging from PM2.5 to N95 to P100 filters. It comes in three colors: white, black and clear/transparent. The company claims that the mask allows for use of facial recognition to unlock smartphones, is water resistant, and comfortable to wear. Wearing masks of varying types at my job in the hospital and since the beginning of the current pandemic, I do wonder how comfortable these would be to wear. I’ve worn N95, KN95, Level 3 surgical masks, Level 1 surgical masks, cloth masks, and neoprene masks. They are all H-O-T to wear, to varying degrees. I can’t imagine how hot a silicone mask would be to wear all day.

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

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

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

by Alessandro Ebersol (Agent Smith)

After almost 30 years (27 to be exact), a game is modified to work as it should, on the date it was released. Street Fighter 2 Remastered is a hack for the Megadrive/Genesis game, which was released on September 28, 1993 in Japan, on September 27 in the USA and October 29 in Europe.

But the product that hit stores in 93 was not Capcom's first Street Fighter product for Megadrive. In fact, it was the second, and even so, its production was quite tumultuous.

Now, let's take a walk down memory lane, back to the 90s, to understand why the cartridge for Megadrive came out as an inferior version.

The 1990s witnessed an unprecedented war

Yes, those were the years of the famous console wars, the war of video games, where companies like Sega and Nintendo fought for market shares.

And each small victory meant a lot, since the video game market, in the 90s, had already surpassed the traditional entertainment market, such as cinema and music.

At that time, Nintendo reigned supreme, in the 8-bit market, both in Japan and in the USA, which forced Sega to take the next step in the evolution of video games: launching a 16-bit machine, which would be better to port its arcade hits (arcade), and, would give a competitive technological advantage over rival Nintendo.

However, Nintendo did not sleep in its glories, and was famous for forcing draconian contracts with its licensed partner companies. Aiming to throw rocks at its rivals’ paths, Nintendo signed an exclusive contract with Capcom, yes, that Capcom from Street Fighter II. With this contract, Capcom could not port any of its original games to any other console from other manufacturers.

But it could license them to other companies, and it did so with Sega itself, which bought the rights to Strider and Ghouls' N 'Ghosts, and created versions for the Megadrive. The versions were great, and did not compromise Capcom's relationship with Nintendo. But, all of that would change in 1992, with Street Fighter II.

In 1991, Street Fighter II revived the arcades

Street Fighter II was responsible for revitalizing the arcade video game industry in the early 1990s, to a level of popularity not seen since the days of Pac-Man, in the early 1980s. Yes, the arcades were stagnant and had lost public interest. However, SF2 rekindled the passion for arcades: it sold more than 60,000 arcade machines, each costing around US $1,300. Counting all the elapsed time, it is estimated that the game has earned more than 1 billion and 300 thousand dollars, only on SF2 arcade machines.

And, of course, Capcom would profit much more.
with the upgrade, Street Fighter II: Champion Edition, which would sell more than 140,000 machines.

And, the whole success of SF2 coincided with the launch of the Super Nintendo. As Nintendo had an exclusive contract with Capcom, the timing was perfect for the newly launched big N console: The original Street Fighter II SNES version was the company’s best-selling individual game software, with over 6.3 million units sold, and remains its best-selling game software on a single platform to the present day. SNES was launched in the US in August 1991, and SF2 was launched for the platform in July 92, which boosted console sales and helped cement it to a prominent position in the console wars, despite the Megadrive being already in the market for two years, with a considerable library.

**Welcome to the next level**

With the revival of arcades and the boost SF2 gave SNES, the market for 1-on-1 fighting games was on fire. So much so that many games emerged because of SF2, the most obvious was Mortal Kombat, followed by many others, such as Killer Instinct, Art of Fighting, World Heroes and etc…

But, with the fierce battle of the consoles, the old Nintendo rules, from the time of the NES 8 bits, were no longer valid.

Nintendo had strict rules with its licensees: each third-party developer could only release up to five games a year (but some third parties worked around it using different names, like Konami’s “Ultra Games” brand), these games could not be released on another console within two years, and Nintendo was the exclusive manufacturer and supplier of the NES cartridges.

In 1991, Acclaim began releasing games for both platforms, with most of Nintendo’s other licensees following suit over the next few years.

Capcom was very reluctant about this, but it did license some games to Sega (as mentioned above).

Sega, eyeing to get a slice of that market, started to negotiate aggressively with Capcom, to have a Street Fighter II for its platform. Negotiations with Sega regarding bringing Street Fighter II to the Sega Mega Drive started around the 1992 Summer Consumer Electronic Show. Capcom in Japan was understandably against the idea of going against its relationship with Nintendo and was reluctant to work with Sega because of that.

**Sega Does What Nintendo don’t**

However, a deal was settled and Sega was going to receive its Street Fighter II. Not only would Sega receive Street Fighter II, Capcom would now become one of Sega’s official third-party licensees. To sweeten the deal, Capcom offered to port the then recently launched Champion Edition, which was a rebalanced version of Street Fighter II that allowed the player to play as the four “boss” characters that had not been released on any console before, and were a significant improvement over the Nintendo port.

Capcom found a way around the deal with Nintendo: It would bring a different version of the game it made for Nintendo.

![The first prototype of Street Fighter 2 for the Megadrive](image)

As Capcom was not prepared to handle the development of the Mega Drive, they decided to outsource this port to an unknown third-party software company under Capcom’s supervision.

The development of the port of the game began shortly after the deal was struck in 1992. Both Capcom and Sega were very sensitive about the port’s production, as well as the business itself. Given the rumors cited directly by Sega at the time, the game would be actually developed, completed and tested before that year’s holiday season. There were also rumors that Sega was intentionally fueling rumors about the possibility of the game appearing on a Sega console in an effort to slow Nintendo’s console sales and boost its own.

In the fall of that year, rumors began to spread about Sega’s offer of Street Fighter II, although it was never formally announced by the company itself. Many magazines were excited about the port, as the Mega Drive hardware could potentially facilitate the requirements needed to produce a very accurate port of the game. Ports on home consoles generally
had to deal with the architectural limitations and differences of the hardware itself and this generally produced very different results compared to the originals. The dream of many players at that time was to have “perfect arcade versions” of high-quality, high-budget arcade games produced on much more expensive hardware. With the Zilog Z80 as a secondary processor for sound and the immensely superior Motorola 68000 CPU (which coincidentally were the same processors used on the original CP-1 System arcade board) inside the Sega Mega Drive, there was a lot of anticipation with this port.

Cheap (was it?) is expensive

The first mention of a potential Street Fighter II port for the Mega Drive that could be found is a brief mention in the November 1992 edition of Mean Machines Sega. Most of those early rumors were consistent in detailing three specific things about this port: first, all the rumors claimed that the game would be based on Champion Edition. Two, it would be in a 16 Mbit cartridge. And finally, a special six-button controller and an arcade controller would be produced specifically because of that port.

From December 1992 to April 1993, there was a festival of rumors circulating in the publications of the time.

Some “pearls” of that time stated that “the game would be bundled with the Mega CD to boost sales, and it would be a completely new edition programmed by Capcom itself.”

With all the pressure around this port growing, in March 1993 there was an official announcement by the two companies.

There was a public event at the Accord Sofitel hotel. At the event, Tom Kalinske, of Sega of America and Joe Morici, of Capcom USA announced Capcom’s third-party licensee status. The Street Fighter II: Champion Edition port for Mega Drive was announced and a prototype of the six-button game controller was shown at the event. The June 1993 release date was announced and a 16 Mbit cartridge was announced as well. At the conference, Capcom itself brought some Street Fighter II: Champion Edition arcade cabinets and even some playable prototypes from the Mega Drive port for people to play as well.

However, not everything was rosy...

When evaluation copies were sent, the press reported some sound quality problems for the voice samples. But in general, many non-Japanese journalists admitted that the Champion Edition was superior compared to the SNES version. Surprisingly, Japanese journalists were more critical, but in the end they were still in favor of the new Mega Drive port (Dengeki Mega Drive in issue #3 pointed to the infamous black bars, for example). Despite everything mentioned by the media so far, it seemed that things were going well for Sega!

Oh, well, no, because Capcom, as a great dealer it always was, after announcing the partnership with Sega, announced the 20Mbit Street Fighter II: Turbo Hyper Fighting cartridge, scheduled for launch on July 11 in Japan, just one month following the launch of Sega’s Champion Edition. The Turbo Hyper Fighting version featured all the changes made in the Champion Edition, but also included the fastest game speed that became popular with an unofficial/unsupported bootleg hack, from the arcade version “Rainbow Edition”, created by pirates from Taiwan.

If you want something well done, do it yourself

In this context of extreme anxiety and expectation, the prototype arrived for Akira Nishitani, the production supervisor for Street Fighter. And, he was horrified: “I remember when the Genesis’ version first appeared. I checked the ROM and basically said: This is terrible. Get rid of everything.”

It was a 16Mbits cartridge, with black bars and a much smaller screen space, to accommodate all the characters and scenarios, and even so, a lot was cut.

Capcom was very disappointed with the quality of the port for the Megadrive, made by the mysterious third party company. And while it’s not clear why Capcom decided to completely discard almost all of the work done for the Champion Edition, considering
Street Fighter Remastered on PCLinuxOS

Even the art and price of the cartridge had already been defined, but the game was no more.

that it oversaw the port throughout its development, the port was unceremoniously eliminated, just about a month after the official announcement of the partnership with Sega. And, the game was officially announced at CES in 1993, in June, for a release in September of the same year. Now, as the prototype was discarded, Capcom had 2 months to create a new version, almost from scratch, for the Mega drive.

What helped this almost impossible task, was that the team working in the Megadrive port was able to have assets from the versions of the PC Engine and SNES, which were being developed at the same time, being then adapted to the hardware of the Mega drive.

Well, the quality of the prototype was not a consensus among Capcom executives at the time, so much so that Joe Morici, an executive at Capcom USA, said the prototype was good enough to launch as soon as possible, but Akira Nishitani was against it. And having to remake the entire cartridge in-house took long enough for the release of Street Fighter 2: Special Champion Edition, to coincide with its biggest rival: Mortal Kombat, which would be released on Mortal Monday, September 13, 1993. But that's another story...

They sound hoarse and unintelligible, and that’s where the Genesis version really falters.

Still, the game sold very well, and it was an impressive port.

But, both the graphics and the voices were criticized a lot. Now, the question that does not want to remain silent: Was the Hardware of the Megadrive that bad? Could a better version be? Or, was this port a victim of Capcom's hustle and bustle? Well, that answer would take 27 years to answer.

27 Years later ...

On July 17, 2020, Brazilian ROM hacker Rafael Pyron released, at https://www.romhacking.net/hacks/5273/, a patch for the original game, the one released in September 93, which fixes all the things that Capcom left half baked for the Sega Megadrive on this port:

Street Fighter would face his biggest enemy: Mortal Kombat

Haste is the enemy of perfection

With a rushed production, the version of Street Fighter II: Special Champion Edition, for the Sega Megadrive/Genesis left something to be desired.

Criticism focused on graphics and sound. Genesis' limited color palette makes many stages look faded ... the characters are very small, the backgrounds are of very low quality and when compared side by side with the SNES versions it is easy to see why the SNES was considered the superior system visually.

And, its audio was highly criticized: The music is of very grainy quality and the voices are just horrible.

“Everything related to art and presentation has been redone,” says Pyron. “All the features were used intelligently to tap the potential of the console. Nor is
it a port restricted to the original work, Street Fighter 2 has always been updated in arcades and ports. Therefore, part of the job was to revise the game with modern elements present in the SF series itself to give an updated look to the game.

The changes include a new HUD design, as well as new text. The player selection map has been revised, as well as the portraits of the characters on the player selection screen. The animation frames have been revised and the artwork has been updated to make use of more colors and details. Even the final sequences of the game have been updated to be closer to the ones in the original arcade game. Pyron didn't just make cosmetic changes either; there are numerous game fixes that rebalance the gameplay.

How to play Street Fighter 2: Remastered on PCLinuxOS?

We got to the most interesting point in the article: How to play Street Fighter 2: Remastered on PCLinuxOS. Just follow this easy, easy recipe.

1) You will need a dump of the ROM Street Fighter 2: Special Champion edition. The version should be: Street Fighter II ~ Special Champion Edition (U) [f1], otherwise it will not work.

2) You will need an IPS patcher. I packaged three for PCLinuxOS: Lazy_IPS, EWingIPSLabel and Jips.

I advise you to use one of the first two, which are more updated. Jips doesn't work very well with current patches.

3) Go to the patch link: https://www.romhacking.net/hacks/5273/ and click on Download.

4) Download the ZIP file containing the patch.

5) Now, here's a very important detail: The Street Fighter 2: Special Champion Edition ROM must have R/W attributes, otherwise the patch cannot be applied. Then, set the ROM attribute for Read and Write.

6) Unzip the ZIP file, and, you will have the IPS file, of the patch, which will be applied in ROM.

7) Open your favorite IPS patcher (any of the above).

8) Click on choose ROM, point to the folder where the Street Fighter 2: Special Champion edition ROM
is. Then, click Choose IPS Patch, point to where the IPS patch was unzipped and click apply.

9) And done, the patch will be applied and the resulting ROM will be Street Fighter 2 Remastered. If you have an Everdrive, you can copy the updated ROM to a memory card and play it on a real Megadrive. Or you can have fun with the various Megadrive emulators that are in the PCLinuxOS repos.

Here, a video review of the patching process and the updated game review.

I hope you enjoy it, and play a game that, after 27 years, is as it should have been, if Capcom hadn't been so messed up.
Inkscape Tutorial: Inkscape 1.0 New Features, Part 2

by Meemaw

Inkscape 1.0 came out a bit ago, and I thought I'd show you a few more of the new features.

Y-Axis Inversion

In this version of Inkscape, the zero measurements on the canvas are now in the UPPER left hand corner of the window, rather than the lower left as it has always been. This makes it more compatible with other programs that use the svg file format. You can change it back in Settings.

Canvas Mirroring

The canvas can now be flipped horizontally or vertically, to make sure that your drawing is absolutely straight, and looks good either way. You can access it from View > Canvas orientation > Flip horizontally / Flip vertically as shown below. I didn't do anything very fancy but you can see it can be flipped easily. If you had done a very involved project but wanted to flip to see if it looked good, it would be easier to flip the whole canvas than to try to select everything and flip it.

Calligraphy Tool

A new option to add dots has been added to the tool. Click in place without moving the mouse to create a dot, and use Shift + Click to create a larger dot.

Measurement Tool

Hovering over a path with the tool now displays the length, height, width, and position of the path. If you hover over a group, it will show the width, height, and position of the group. Holding Shift switches to showing info about the parts of the group (top, right).

New Live Path Effects

The new window lists the Live Path Effects (LPE) in alphabetical order, so if you don't see some of these, scroll down.
Dashed Stroke LPE

This new LPE creates uniformly dashed paths, optionally by subdividing the path's segments, or including dashes that are symmetrically wrapped around corners.

Measure Segments LPE

This new path effect adds DIN and custom style measuring lines to "straight" segments in a path (center).

Offset

Use this to add an offset to your paths, shapes and groups (right). Compared with the 'Dynamic Offset' available from the menu, this allows you to:

- define the offset distance numerically and to choose the unit, for example, to offset an object by 3 mm.
- keep sharp corners sharp (or to make them round, or beveled, if you want to), by using different methods for calculating the corners (right, center).
- same on-canva control handle for changing the offset when using the node tool.
As told to MrCrankyPants-YouCanToo

What is your name/username?
David Thompson. I go by wdt on the forum.

How old are you?
70

Are you married, single?
Married.

How about kids, grandkids (names and ages)?
Two children, and a grandchild.

Do you have pets, what is your favorite?
No pets. Well, honeybees are hardly "pets."

Are you retired, still working and if working, what do you do?
I am retired. I like to fix things as a hobby. Anti-entropic.

Where do you call home? What is it like? IE: weather, scenery
SW Ontario, Canada, a small town.

Where did you go to school and what is your education level?
Ontario. I am a high school graduate, with a little university.

What kind of things do you like doing? hobbies, travel, fishing, camping?
Computers, bees, and mechanics.

Why and when did you start using Linux?
Maybe '96-'97, after OS/2 Warp3.

What would you like to see happen within PCLinuxOS that would make it a better place.
What are your feelings?
I am pleased with the no systemd, the forum seems OK. PCLinuxOS is, after all, a minority distro.

PCLinuxOS Family Member Spotlight is an exclusive, monthly column by YouCanToo, featuring PCLinuxOS forum members. 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, panote or Meemaw in the PCLinuxOS forum expressing your interest.
PClinuxOS

Available in the following desktops:
- KDE
- LXDE
- Xfce
- Openbox
- Gnome
- Enlightenment e17

Screenshot Showcase

Posted by jogurtmen, on August 15, 2020, running Mate.
Skillet Lasagna  
**Serves 6**

**INGREDIENTS:**

- 1 lb extra-lean (at least 93%) ground beef
- 1 small onion, chopped (1/3 cup)
- 2 cloves garlic, finely chopped
- 1 jar (25.5 oz) organic Italian herb pasta sauce
- 1 1/2 cups water
- 1 tablespoon ketchup
- 3 cups (6 oz) uncooked mini-lasagna noodles (malfalda)
- 1/2 cup chopped green bell pepper
- 1 teaspoon dried basil leaves
- 1 cup shredded reduced-fat Italian cheese blend (4 oz)

**DIRECTIONS:**

1. In a 12-inch nonstick skillet, cook ground beef, onion and garlic over medium-high heat for 5 to 7 minutes, stirring occasionally, until beef is thoroughly cooked; drain.

2. Stir in remaining ingredients except cheese. Heat to boiling. Reduce heat to low; simmer uncovered 10 to 12 minutes, stirring occasionally. Sprinkle with cheese.

**NUTRITION:**

- Calories : 310  
- Carbohydrates : 43g  
- Fiber : 7g  
- Sodium : 740mg  
- Fat : 13g

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**Want To Help?**

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

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

Join us on our [Google Group mailing list.](mailto:googlegroup@pclinuxosmagazine.com)
ms_meme's Nook: It Ain't Necessarily So

It ain't necessarily so
It ain't necessarily so
The things Bill is tellin'
'Bout Windows he's sellin'
It ain't necessarily so

Windows what high prices
Extra for devices
Whatever he's saying
You'll aways be paying
Windows what high prices

It ain't necessarily so
It ain't necessarily so
The things Bill is tellin'
'Bout Windows he's sellin'
It ain't necessarily so

Don't be a Windows flunky
Surf the web carefully
It's always a trying
On you to be spying
Don't be a Windows flunky

You'll always be out of date
New versions they create
Your money it goes
Where nobody knows
You'll always be out of date

It ain't necessarily so
It ain't necessarily so
The things Bill is tellin'
'Bout Windows he's sellin'
It ain't necessarily so

MP3

OGG
Text
Phone
Web Surf
Facebook
Tweet
Instagram
Video
Take Pictures
Email
Chat

While Driving.

Put Down Your Phone & Arrive Alive.
GIMP Tutorial: Blending Multiple Images

by Meemaw

I saw this the other day, and had thought about combining some photos. I have grandchildren and it seems like a neat way to show them at different ages. However, I'm going to practice with other photos. This is a pretty quick process.

To blend multiple images together, you will need to erase the background of one of the top layers in order to reveal what's underneath. You can do this very quickly using Masks.

Open your two images on separate layers in the same file. What I did was to open my main image in one layer, then created a white layer in the same drawing. I then copied and pasted my other photos to the bottom layer layer.

Select the top layer and click the Masks button at the bottom of the Layers dock. When the window comes up, leave the default - White (Full Opacity), then click Add.

Select the Brush tool and set the color to black.

Now start painting onto the top layer. Where you paint black, the top layer will be erased and the bottom layer will become visible.

If you make a mistake, change the brush color to white. Now paint over the black areas of the mask and that will make the top layer visible once again. If it's a stroke you just made, you can always undo it using <CTRL> + Z.

Hint: If you want your background color different, you can always change that layer's color by using Bucket Fill before you open the photo for that layer. In the photo above, I made my bottom layer blue so it would show through around the photo. Remember also, you can make a straight line with your brush by holding down Shift and clicking each end of where you want your line. GIMP will draw a straight line between those two points.

I also did a sort of collage of some of our ATV riding photos from last summer (top, right).

The hardest thing is remembering where your photos are to uncover them! Have fun!
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 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 you 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 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: 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 314, average score 220.
Camping Crossword

1. A piece of material used especially for protecting exposed objects or areas
2. An area of special scenic, historical, or scientific importance set aside and maintained by a national government
3. A bag strapped on the back and used for carrying supplies or personal belongings
4. A light narrow boat with pointed ends. usually propelled by paddling
5. Forest
6. Bag for belongings carried with straps over the arms
7. A light narrow boat that has both ends tapered to a point, and often has a closed top except for an opening for the paddler.
8. A flask for carrying liquids (as on a hike)
9. A perpendicular or very steep descent of the water of a stream
10. Living things and especially mammals, birds, and fishes that are neither human nor domesticated
11. A lotion applied to the skin to prevent sunburn
12. A bag that is warmly lined or padded for sleeping outdoors or in a camp or tent
13. The pursuit of game
14. A device for determining directions by means of a magnetic needle
15. A swinging couch or bed usually made of netting or canvas
16. A mixture of seeds, nuts, and dried fruits eaten as a snack

Download Puzzle Solutions Here
Mixed-Up-Meme Scrambler

"I miss the old

Use the clues to unmix the letters to make a new word. Remix the letters in the red boxes to solve the puzzle.

Image Hosting."

Chart
RAGDAMI

Image
IRELCPA

Likeness
TEPUCIR

Profile
HSCKTE

Download Puzzle Solutions Here
More Screenshot Showcase

Posted by parnote, on August 6, 2020, running Xfce.

Posted by scoundrel, on August 27, 2020, running KDE.

Posted by Upgreyed, on August 22, 2020, running Mate.

Posted by Yankee, on August 3, 2020, running LXDE.