

# Manjaro Linux, trouble creating additional XScreen

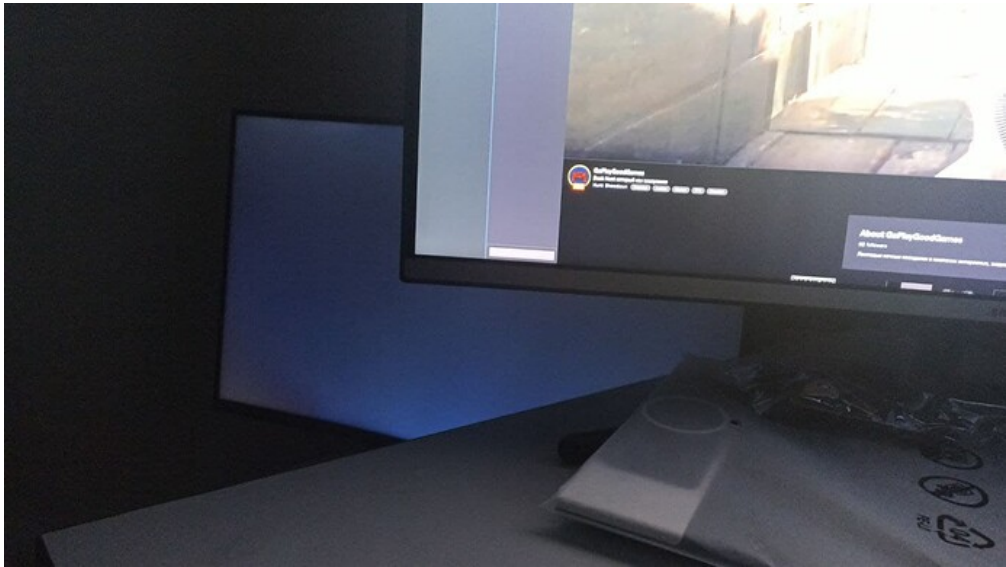
omniverse\_extension

Xeizzeth #1 January 13, 2022, 2:36pm

There are numerous topics everywhere on the internet including manjaro forums and superuser stackexchange and so far none of the solutions provided work.

I have four monitors and two GPUs (1050ti and t400 quadro), and on the first one there are 3 monitors connected, and on the t400 there is additional 4th monitor connected.

The nvidia-settings utility does detect both GPUs without problems, as well as all 4 monitors. Also it is obvious that the monitor is working since it is led up and reacting to the events in the system, such as booting up:



Well when I try to enable 4th screen it gives the only option to create additional XScreen. Then also it asks to save the config and I do just that by also enabling Xinerama since I think it should be enabled anyway, and save it. And I tried to save it to multiple locations, including the default one, but I believe it uses `/etc/X11/mhwd.d/nvidia.conf` since before only updating that file made any effect.

Anyway. Here is the content of Xorg.0.log file:

```
[      7.289]
X.Org X Server 1.21.1.2
X Protocol Version 11, Revision 0
[      7.289] Current Operating System: Linux xeizzeth-h470mds3h 5.13.19-2-MANJARO #1 SMP
[      7.289] Kernel command line: BOOT_IMAGE=/boot/vmlinuz-5.13-x86_64 root=UUID=9995d664
[      7.289]
[      7.289] Current version of pixman: 0.40.0
[      7.289]    Before reporting problems, check http://wiki.x.org
to make sure that you have the latest version.
[      7.289] Markers: (--) probed, (**) from config file, (==) default setting,
(++) from command line, (!!) notice, (II) informational,
(WW) warning, (EE) error, (NI) not implemented, (??) unknown.
[      7.289] (==) Log file: "/var/log/Xorg.0.log", Time: Thu Jan 13 18:56:51 2022
[      7.305] (==) Using config file: "/etc/X11/xorg.conf"
[      7.305] (==) Using config directory: "/etc/X11/xorg.conf.d"
[      7.305] (==) Using system config directory "/usr/share/X11/xorg.conf.d"
[      7.321] (==) ServerLayout "layout"
[      7.321] (**) |-->Screen "Screen0" (0)
[      7.321] (**) |   |-->Monitor "Monitor0"
[      7.321] (**) |   |-->Device "Device0"
[      7.321] (**) |   |-->GPUDevice "Device1"
[      7.321] (**) |   |-->GPUDevice "Device0"
[      7.321] (**) |   |-->GPUDevice "Device1"
```

And here is the content of xorg.conf file nvidia-settings utility generates:

```
# nvidia-settings: X configuration file generated by nvidia-settings
# nvidia-settings:  version 495.44

Section "ServerLayout"
    Identifier      "Layout0"
    Screen          0  "Screen0" 0 0
    Screen          1  "Screen1" RightOf "Screen0"
```



I would REALLY appreciate any help since I’m struggling with it for a couple weeks at least, and went for the great lengths to make it work.

TL;DR - unable to create additional XScreen which I believe the only thing I need in order to make this setup work.

[generix](#) #2 January 13, 2022, 3:03pm

Please try deleting xorg.conf, reboot, check  
xrandr --listproviders  
that two providers are available, NVIDIA-0 and NVIDIA-G0, then run  
xrandr --setprovideroutputsource NVIDIA-G0 NVIDIA-0

[Xeizzeth](#) #3 January 13, 2022, 3:17pm

Thank you for your help but deleting xorg.conf and nvidia.conf files didn’t provide anything, or it’s not the ones that being used.  
And yes, I need to remark that I didn’t delete them but simply renamed them.

And yes - xrandr --listproviders does output this:

```
Providers: number : 2
Provider 0: id: 0x1b7 cap: 0x1, Source Output crtcs: 4 outputs: 4 associated providers: 1 r
Provider 1: id: 0x3df cap: 0x2, Sink Output crtcs: 4 outputs: 6 associated providers: 1 nam
```

And the command “setprovideroutput source” does something, since it forces my window manager to reset, but besides that no effect. I still have a single XScreen, and 4th monitor is still not being used.

[Xeizzeth](#) #4 January 13, 2022, 3:31pm

Update on the issue.  
Actually deleted all the xorg.conf files I could find in the system and created new config setting all the monitors to the lower resolution and I can confidently say it uses /etc/X11/xorg.conf

Yet, it fails to create additional XScreen and enabling 4th monitor.

[Xeizzeth](#) #5 January 13, 2022, 3:44pm

Yet another update.  
Tried different options, including disabling 3 primary monitors and enabling 4th secondary one, where I tried to create an additional XScreen on primary monitors and and it doesn’t work.  
So far the only thing the utility successfully does is lighting up the monitor, yet failing to send a picture to it as well as creating an additional xscreen.

Looks like we need something else for this to work.  
I appreciate your help anyway.

[Ubuntu - Dual GPU Configuration - Black Screen with X](#)

[Xeizzeth](#) #6 January 13, 2022, 4:49pm

📎 [nvidia-bug-report.log.gz](#) (515.4 KB)  
Adding nvidia bug report just in case.

Also tried to make this work using xrandr. It fails with **xrandr: Configure crtc 4 failed**.

[generix](#) #7 January 13, 2022, 8:06pm

Please check if it works when you set as kernel parameter  
nvidia-drm.modeset=1

[Xeizzeth](#) #8 January 13, 2022, 9:54pm

Added.  
**sudo cat /sys/module/nvidia\_drm/parameters/modeset** outputs **Y**

But of course it doesn't solve the problem, since XScreen is still haven't been created.

The current contents of xorg.conf file:

```
# nvidia-settings: X configuration file generated by nvidia-settings
# nvidia-settings:  version 495.44

Section "ServerLayout"
    Identifier      "Layout0"
    Screen          0  "Screen0" 0 0
    Screen          1  "Screen1" RightOf "Screen0"
    InputDevice     "Keyboard0" "CoreKeyboard"
    InputDevice     "Mouse0" "CorePointer"
    Option          "Xinerama" "1"
EndSection

Section "Files"
EndSection

Section "InputDevice"
    # generated from default
    Identifier      "Mouse0"
    Driver          "mouse"
    Option          "Protocol" "auto"
    Option          "Device" "/dev/psaux"
    Option          "Emulate3Buttons" "no"
    Option          "ZAxisMapping" "4 5"
EndSection
```

[Ubuntu 20.04 - not able to run 6/7 monitor setup with one X screen](#)

[generix](#) #9 January 13, 2022, 10:45pm

I meant trying the xrandr approach again.  
I don't think you really want separate Xscreens as the desktop won't expand to it, you won't be able to move windows there. If the monitor is lit, you'll likely already have an xscreen :x.1 there, with a black background and you will be able to move the mouse there if you move it to the right.

[generix](#) #10 January 13, 2022, 10:47pm

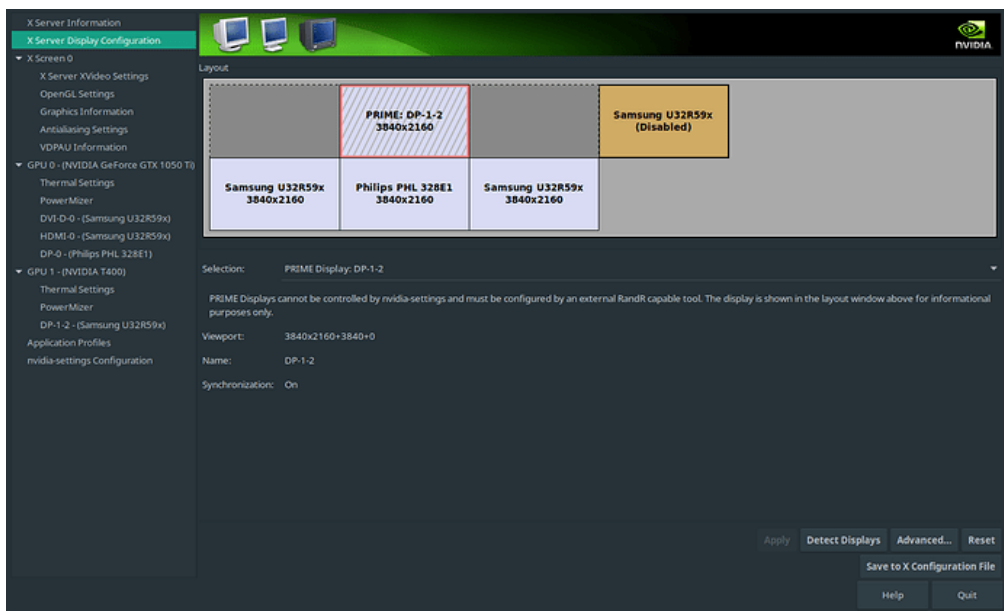
<https://forums.developer.nvidia.com/t/problem-installing-nvidia-driver-on-red-hat-8-4/195163/9?u=generix>

[Xeizzeth](#) #11 January 13, 2022, 11:55pm

Holy sh!t!!! It works!!! Finally.



But!!! It does create some abnormalities, like this one:



And I believe those abnormalities foreshadow the problems yet to come when I'll continue adding monitors (planning to get 6\*4k displays).

I must point that out because nvidia devs must be aware of this and also it'd be perfect if such scaling were supported by a nvidia drivers.

But anyway, thank you for help, @generix and if you want, you can send me a paypal in DM, if this forum supports it, so I could “buy you a cup of coffee”.

**generix** #12 January 14, 2022, 9:00am

Zeizzeth:

## External Media

And I believe those abnormalities

That's normal, the 4th monitor is added using PRIME functionality, so nvidia settings always says "prime display"

Zeizzeth:

## External Media

foreshadow the problems yet to come when I'll continue adding monitors (planning to get 6\*4k displays).

My advice: don't do that. If you want a monitor to display more than just the desktop background, you'll need about 1.3GB video memory per 4k monitor (FHD:350MB) on the primary graphics card, with three enabled monitors, you were at 3.1GB/4GB already. if

you run out of VMEM, the gpu will start using system memory and everything will come down to a crawl. I guess you will already notice slowdowns now, depending on the amount of applications you’re starting.

Xeizzeth:

[External Media](#)

I must point that out because nvidia devs must be aware of this and also it’d be perfect if such scaling were supported by a nvidia drivers.

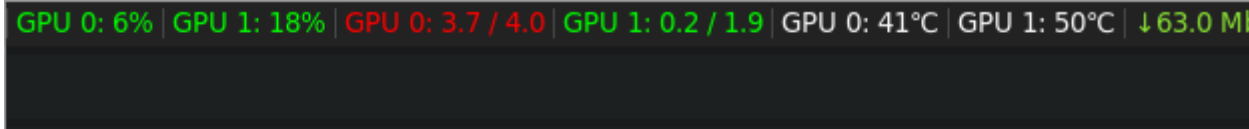
The nvidia way would be using “Mosaic” which is limited to pairs of identical gpus, mostly Quadro type.  
The nvidia2nvidia prime functionality was just added in driver 470.

[Xeizzeth](#) #13 January 14, 2022, 4:41pm

generix:

if you run out of VMEM, the gpu will start using system memory and everything will come down to a crawl. I guess you will already notice slowdowns now, depending on the amount of applications you’re starting.

It’s ok. I’m fine with GPU consuming system memory and I don’t notice slowdowns actually.  
But yes, you’re right. The current situation with the memory is following:



Mind you - the 3 4K displays already connected to GPU 0, which is 1050ti.

But anyway, I always can go and get yet another quadro. T600 or T1000.

And again - thank you greatly for the help. You’re the hero man. My offer of “cup of coffee” still stands.

[Xeizzeth](#) #14 January 14, 2022, 6:10pm

Actually I read your reply twice and if all that memory is required to be present on the primary vcard and not on the secondary one then I’ll just get 3060 with 12 gb of memory and problem solved.

I say that because you said “primary graphics card”. Where looks like the whole desktop is being stored.

This is again if I understand you right.

[generix](#) #15 January 14, 2022, 6:13pm

Correct, the primary needs to store everything to get a consistent, continuous desktop...

[system](#) Closed #16 January 28, 2022, 6:14pm

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