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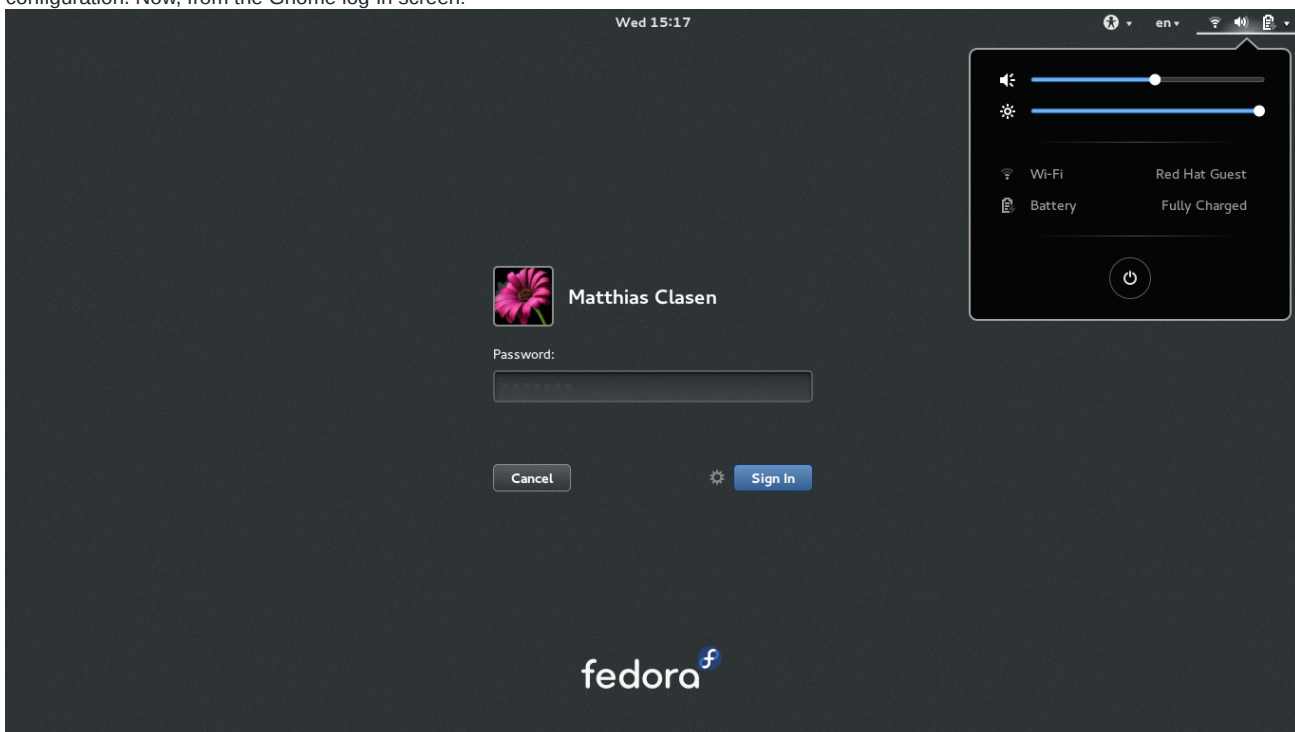
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How to know whether Wayland or X11 is being used

So I just installed the latest Kali Linux on my laptop which was based on Debian 7 (oldstable). I then dist-upgrad-ed the whole thing to Debian 8.

I've always wanted Wayland instead of X11, so I installed the necessary packages. Then created a minimal `~./config/weston.ini` configuration. Now, from the Gnome log-in screen:

I can boot to `Gnome on Wayland` or `LXDE` (among others). The previous with very limited success and the latter (LXDE) almost perfectly, though the panel needs setting up (I have to look up freedesktop).

Anyways, in LXDE, the GUI is more responsive than it was on the oldstable and possibly as fast when it was running windows 7. I was pleased.

But I want to know if this is because of all the library/module upgrades from Debian 7 to 8 or from using Wayland (if I really am using Wayland at all). I skimmed through htop and found a `/usr/bin/Xorg` running and no process named "wayland". So which one am I currently running?

/ x11   / kali-linux   / lxde   / wayland

edited Dec 28 '17 at 10:09   asked May 12 '15 at 4:53

SilverlightFox   Dehbop
201   1   4   13   **496**   1   4   6

run xprop, this tool will work on xapplications running under emulation but not wayland or gnome-shell on wayland. – Mike Mestnik Aug 10 '15 at 1:40

7 Answers

The best thing I found working for Fedora is

```
loginctl show-session <YOUR_NUMBER> -p Type
```

The number to pass in is the one you get by issuing just

```
loginctl
```

Use the one with your user name.

Refer to: https://fedoraproject.org/wiki/How_to_debug_Wayland_problems

So, for me it is:

```
$ loginctl show-session 2 -p Type
Type=wayland
```

edited Nov 25 '16 at 11:33   answered Nov 25 '16 at 9:59

Andreas
879   6   5

2   Thanks for the great answer. Please add that OP should run `loginctl` first to see the sessions. – Ho1 Nov 25 '16 at 10:33

2   `loginctl show-session `loginctl|grep <YOUR_USER_NAME>|awk '{print $1}'` -p Type` – solsTiCe Dec 7 '17 at 7:06

        confirmed working on ubuntu 17.10 with gnome-session... surprisingly I'm getting x11 – Ray Foss Dec 24 '17 at 4:38

How to know whether Wayland or X11 is being used?

on X11 systems:

```
$ echo $XDG_SESSION_TYPE
x11
```

on some wayland system:

```
$ echo $XDG_SESSION_TYPE
wayland
```

edited Apr 2 '17 at 19:20   answered Apr 2 '17 at 19:01
Stephen Rauch   **Ayush Shanker**
3,101   9   12   25   **911**   8   8

9   What does it mean if this variable is unset? – g.rocket May 26 '17 at 6:03

Give the command

```
ps aux | grep gnome-shell
```

It will give the output

```
/usr/bin/gnome-shell --wayland --display-server
```

If Wayland is active.

answered Nov 19 '15 at 4:30
rksomayaji
101   1   3

3   And what if `wayland` is the default? – anatoly techtonik Sep 21 '16 at 11:34

        My "gnome-shell" process was not running with the --wayland option, but when I ran `ps aux | grep wayland`, I found that /usr/bin/Xwayland was running. – user2016290 Nov 5 '16 at 2:15

        Often you have two `gnome-shell` processes: one used for gdm, and one used for the user session. Often gdm's gnome-shell uses wayland but the user session's gnome-shell uses X11. – Marius Gedminas Nov 23 '16 at 8:38
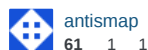
        Xwayland is a process that bridges between X11 applications and the Wayland display server. Its presence implies that you are running Wayland already -- but check the above caveat, it's possible Wayland is only used for the login screen. – Marius Gedminas Nov 23 '16 at 8:39

        `gnome-shell` only works if you are using gnome as DM. – Sebastian Mar 27 '17 at 19:55

This works on fedora

```
loginctl show-session $(loginctl | grep $(whoami) | awk '{print $1}') -p Type
```

answered Jun 14 '17 at 19:13

antismap
61   1   1

(try to) Run the command 'r' in the Alt+F2 menu. It will restart the environment in Xorg (without losing windows and processes) but in wayland it will give the message "Restart is not available in Wayland".

answered Apr 21 '17 at 2:02

owen
46   4

No, I've noticed a pid called Wayland in htop, when I've switched to Wayland for giggles. Unless it's changed that's what one should see. Update: Here is a screengrab showing Wayland process.

```
1359 root      20   0  317M 11240  9984 S  0.0  0.1  0:00.00 /usr/lib/packagekit/packagekitd
1574 stephen   20   0 35768  3952  3344 S  0.0  0.0  0:00.01 /lib/systemd/systemd --user
1575 stephen   20   0 53416  2596     0 S  0.0  0.0  0:00.00 (sd-pam)
1580 stephen   20   0  309M 10180  8688 S  0.0  0.1  0:00.00 /usr/bin/gnome-keyring-daemon --daemonize --login
1808 stephen   20   0  309M 10180  8688 S  0.0  0.1  0:00.00 /usr/bin/gnome-keyring-daemon --daemonize --login
1810 stephen   20   0  309M 10180  8688 S  0.0  0.1  0:00.00 /usr/bin/gnome-keyring-daemon --daemonize --login
1813 stephen   20   0  309M 10180  8688 S  0.0  0.1  0:00.00 /usr/bin/gnome-keyring-daemon --daemonize --login
1579 stephen   20   0  309M 10180  8688 S  0.0  0.1  0:00.03 /usr/bin/gnome-keyring-daemon --daemonize --login
1585 stephen   20   0 15952   152     0 S  0.0  0.0  0:00.00 dbus-launch --exit-with-session gnome-session --session=gnome-wayland
1586 stephen   20   0 42504  2872  2072 S  0.0  0.0  0:00.12 /usr/bin/dbus-daemon --fork --print-pid 4 --print-address 6 --session
1608 stephen   20   0  205M  6404  5768 S  0.0  0.0  0:00.00 /usr/lib/gvfs/gvfsd
1607 stephen   20   0  205M  6404  5768 S  0.0  0.0  0:00.01 /usr/lib/gvfs/gvfsd
```

edited May 12 '15 at 14:01   answered May 12 '15 at 13:48

SD Allen
76   6

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4   I don't see a `wayland` process in your screengrab; the line you've highlighted is a `dbus-launch` process, starting a session called `gnome-wayland` . – Stephen Kitt May 16 '15 at 21:30

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if you want a visual hint, I wrote a simple GNOME Shell extension that shows an icon that tells you whether you are running Wayland or Xorg

http://www.fepede.net/blog/2017/04/gnome_shell_extension_xorwayland/

answered Apr 22 '17 at 6:51

Federico Pedemonte
11   1