oslo-wall on GNOME / Ubuntu (2.0.15 to 2.0.18)

Built first, then tested on a fresh Ubuntu 26.04.1 LTS desktop (GNOME Shell 50.1, Wayland) in a VM with 4 vCPU, 6 GB RAM and a 40 GB disk, 12 October 2026.

> **Verdict:** it works. After one log out and back in, the live Oslo scene is the desktop background on Ubuntu. The dock, top bar, desktop icons, notifications and lock screen keep working, and the editor drives the scene live. It survives a reboot and an update, and it pauses when nobody can see it. Uninstall leaves an empty diff against the pre-install manifest. The test found four bugs, and all four are fixed and published. The limits are listed below.

How it works on GNOME

GNOME Shell has no layer-shell, so other programs cannot draw on the wallpaper layer. oslo-wall 2.0.15 adds a small GNOME Shell extension, `oslowall@kingtalgo.com`, for GNOME 45 to 50. The extension starts the existing WebKitGTK renderer as a Wayland client that it owns. It then turns that renderer's click-through window into a *desktop window*, which sits at the bottom of the stack, under DING's desktop icons. That window is on every workspace and fills the work area. It does not show in the dock, Alt+Tab or the overview. Every 2 s the extension tells the renderer when a fullscreen or maximised window covers the monitor, the overview is open or the screen is locked; the scene then pauses. After 5 idle minutes the scene drops to 5 fps. The installer detects GNOME by itself from `XDG_CURRENT_DESKTOP` (`ubuntu:GNOME`) or from a running gnome-shell. It asks before installing packages: here only `python3-gi-cairo` and `fonts-inter` were missing. Then it installs the extension and turns it on.

Method

The VM ran the official ISO; its SHA256SUMS signature was checked with GPG and the image's checksum matched. The install was the installer's default selection, automated with autoinstall. The only addition was openssh-server, so the test could be driven from outside. The user was a throwaway account called `tester`, and a "clean" disk snapshot was taken. Keyboard and mouse input went in through QEMU, as a person would use them. Before each install a manifest was recorded: the home tree with hashes, /etc, /usr, the package list, systemd units, crontab and `dconf dump /`. Two full runs were made from the clean snapshot.

- **Run 1** used `curl -fsSL …/install.sh | bash` with 2.0.15. It covered the whole checklist, and the update went 2.0.15 to 2.0.16.
- **Run 2** used `wget -qO- …/install.sh | bash` with 2.0.18, to repeat the install and the clean-uninstall diff after the fixes.

Results

Check	Result
Public one-liner, no flags	OK. It detected GNOME, asked [y/N] for 2 packages and installed the extension. It then offered to log out, because GNOME only loads a new extension at login. After logging back in, the scene was there.
Visible day and night	OK: night (live time), and 12:30 day plus snow from the editor. The scene fills the work area beside the dock and under the top bar.
Editor (app grid "Oslo Wall")	OK. It opens from search, and weather, time and the other changes apply to the wallpaper live. Stop and Start work.
Ubuntu dock, top bar, Alt+Tab, overview	OK. There is no extra dock icon and no window in Alt+Tab. The top bar is unchanged. The overview shows GNOME's own background (a limit, see below).
Desktop icons (DING)	OK. The Home icon sits on top of the scene, and the desktop right-click menu works.
Notifications	OK: they show over the scene.
Settings → Appearance, back to a normal wallpaper	OK. Picking a background works. `oslowall off` (or Stop in the editor) brings that picture back at once, and `on` brings the scene back.
Lock screen	OK. It locks and unlocks normally. While locked the scene is paused (0.1 % CPU), and it carries on after unlock without a restart.
Reboot	OK. It starts by itself at login.
Update (`oslowall update`)	OK: 2.0.15 to 2.0.16, sha256 verified. The renderer restarted with the new version without a re-login.

CPU / RAM	Visible: about 20 % of the 4 vCPUs in total, measured over 60 s. Covered, overview or locked: 0.1 %. RAM: about +200 MB used. This VM has no GPU, so everything is rendered on the CPU. KDE on the same kind of VM used 28 %.
Journal	No errors from oslo-wall or the extension, and no JS errors. The renderer's output goes to `~/.cache/oslo-wall/host.log`, not to the journal. The error lines that were there (gkr-pam, snap-userd, polkit, RDSEED) also appear on boots without oslo-wall.
Uninstall	Run 2: **empty diff**. No oslo-wall files are left, the extension is gone, `enabled-extensions` is unset again, no packages differ and no processes or runtime files remain. What does differ is not from oslo-wall: the terminal's own settings (Ptyxis), gvfs and session caches, and CUPS.

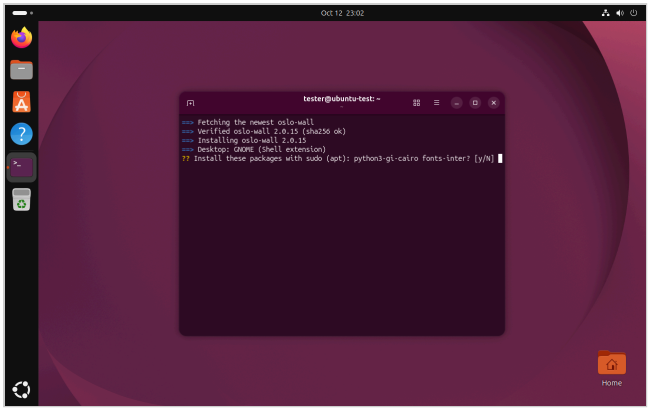
Bugs found and fixed during the test

- **One core at 100 % (all desktops, 2.0.15).** A power check registered on map re-ran forever as an idle callback. This was also most of the high CPU use seen on sway. With it fixed, the renderer's own process uses about 5 % CPU instead of 100 %.
- **Virtual GPUs.** WebKit's GPU compositing on llvmpipe cost about 5x more CPU. On virtio, std, QXL or VMware graphics the renderer now uses WebKit's software path. `"render": "gpu"|"cpu"` in config.json overrides it.
- **A fresh Ubuntu has no curl**, so the curl one-liner stops at "command not found". The installer now also runs with wget, and the install page shows the wget line (2.0.16).
- **Uninstall ran `apt-get autoremove`**, which in run 1 also removed an old kernel. This bug was in the Debian/Ubuntu path since 2.0.14. 2.0.17 records exactly which packages apt added and removes only those. 2.0.17 itself stopped installs on Debian/Ubuntu (a sort-order bug) and was live for about 5 minutes. 2.0.18 fixed it, and run 2 confirmed the fix.

Limits (honest)

- **One log out and in after the first install.** GNOME on Wayland cannot load a new extension while it runs. The installer says so and offers to log out. After that it starts by itself.
- The overview, the workspace switcher and the lock screen show GNOME's own background, not the live scene. The scene is paused there. Changes to the extension itself take effect at the next login; scene and renderer updates apply at once.
- While oslo-wall runs, the picture chosen in Settings is hidden behind the scene. `oslowall off` shows it again.
- Tested only on Ubuntu 26.04.1 with GNOME 50.1 (Wayland), on one monitor, in a VM without a GPU. The code paths for GNOME 45 to 49 and for several monitors are written but untested. The extension is not on extensions.gnome.org; it is installed locally by the installer.

Screenshots



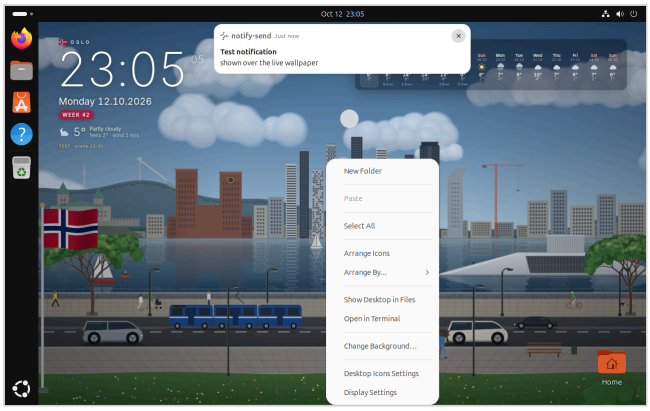
The one-liner detects GNOME and asks before installing packages



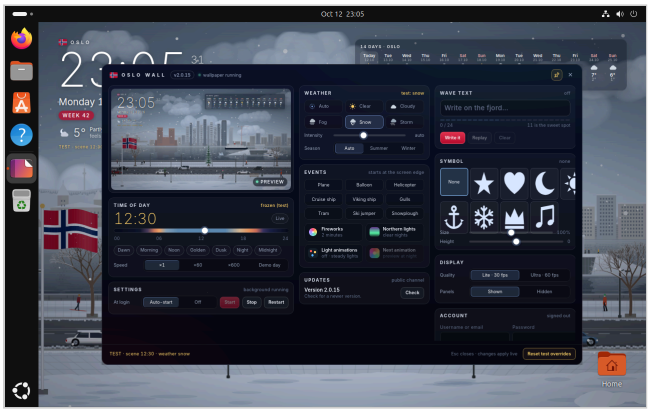
After logging back in: the live scene at night, with the dock, top bar and Home icon



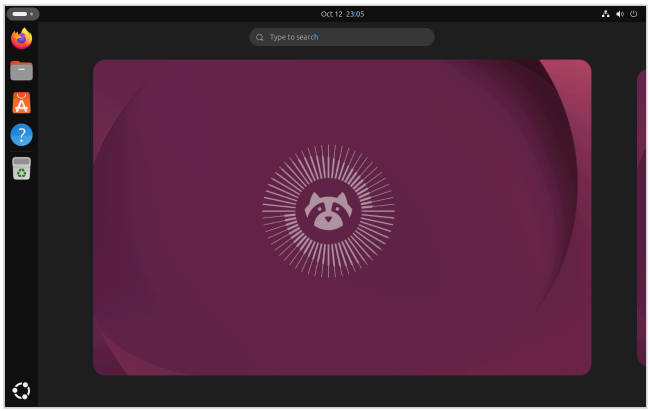
Day (12:30, from the editor)



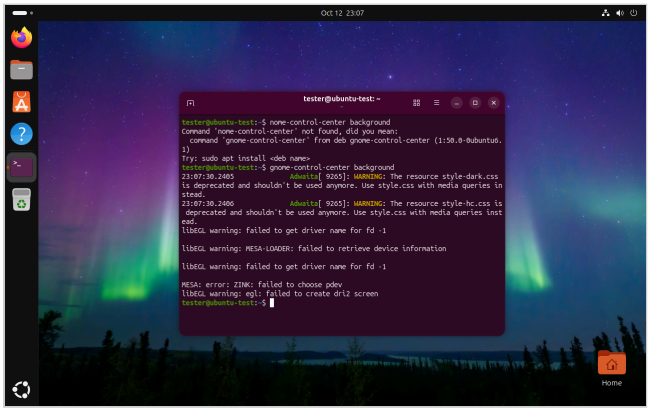
The DING desktop menu and a notification over the scene



Editor: snow applied live



The overview shows GNOME's background, and the scene pauses



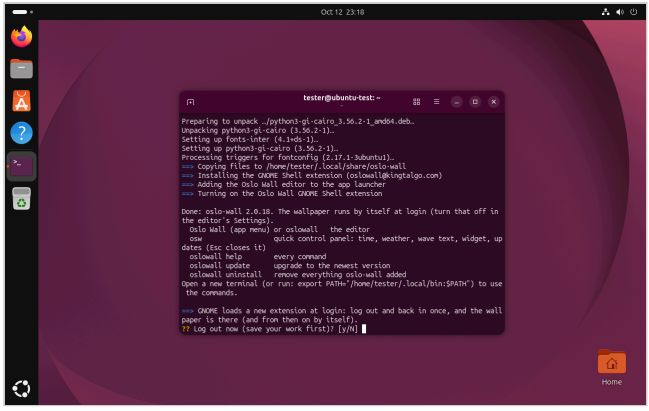
`oslowall off`: the Settings background is back



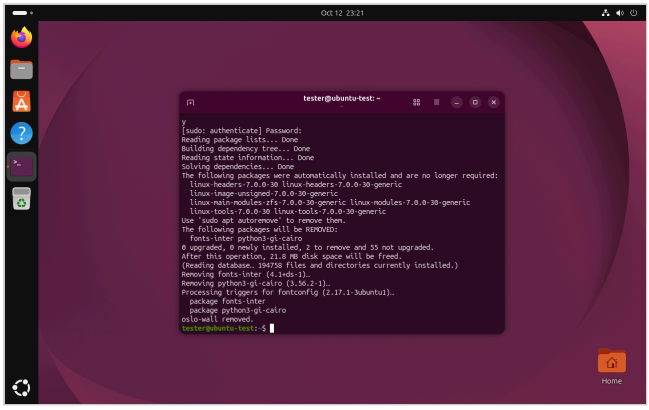
After a reboot it starts by itself



Update 2.0.15 to 2.0.16



Run 2: the wget one-liner on a fresh Ubuntu (2.0.18)



Uninstall removes only its 2 packages; the old kernels stay