



Breaking open the Cage: the story behind your favorite (and *only*) Wayland kiosk

2020



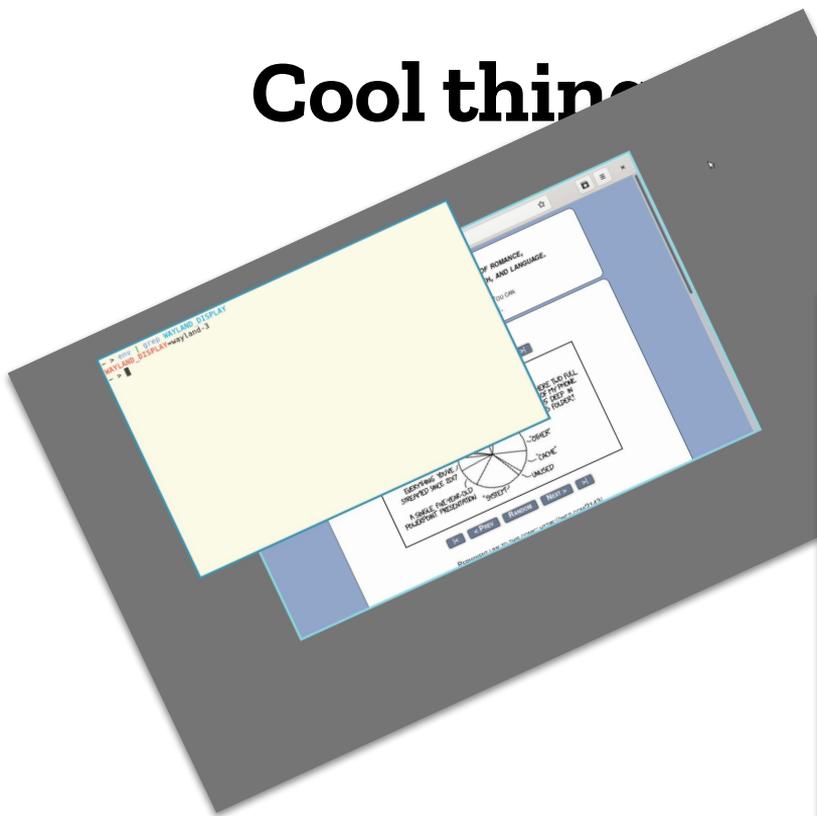
Rewind Time





– Carl Sagan

Cool things



Using Cage for a seamless remote Wayland session
April 23, 2019 on [Drew DeVault's blog](#)

Congratulations to Jente Hieskes on [the first release of Cage!](#) Cage is a Wayland compositor designed for kiosks, though, as you'll shortly find out, is useful in many unexpected ways. It launches a single application, in fullscreen, and exits the compositor when that application exits. This lets you basically add a DRM+KMS+libinput session to any Wayland-compatible application (or X application via XWayland) and run it in a tiny wroots compositor.

I actually was planning on writing something like this at some point (for a project which still hasn't really come off the ground yet), so I was excited when Jente [announced](#) it in December. With the addition of the [BSP-backend](#) in wroots, I thought it would be cool to combine these to make a seamless remote desktop experience. In short, I installed [FreeRDP](#) and [Cage](#) on my laptop, and [sway](#) on my desktop. On my desktop, I [generated TLS certificates per the wroots docs](#) and ran sway like so:

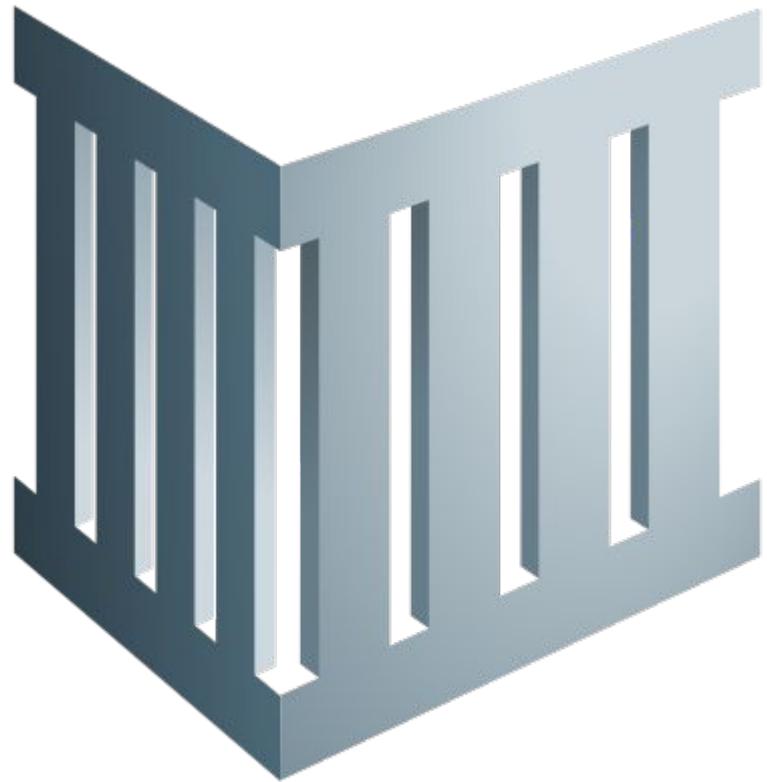
```
WLR_RDP_TLS_CERT_PATH=SHOME/tls.crt \
WLR_RDP_TLS_KEY_PATH=SHOME/tls.key \
sway
```

on my laptop, I can run this script:

```
#!/bin/sh
set -e
export XDG_RUNTIME_DIR=/tmp
cage sway-remote launch
set +e
freerdp \
-v hawura \
-dpp 32 \
-size 1280x800 \
%
```

on the first run, and it starts up cage and asks it to run this branch then starts up xfreerdp and connects to my desktop (its rdp is then fullscreened and all of my laptop's input events are an experience which is basically identical to running sway it's actually running on my desktop and using the remote rdp backend for wroots. And congrats again to Jente - everything back and forth.

It is a cool hack. It's definitely not network centric, but I wasn't aiming for that. It's just a neat thing you can think of any other novel use-cases, too!



Agenda

- Rewind time
- Who am I?
- What is Cage?
- Plans for Cage's future
- Philosophy behind Cage

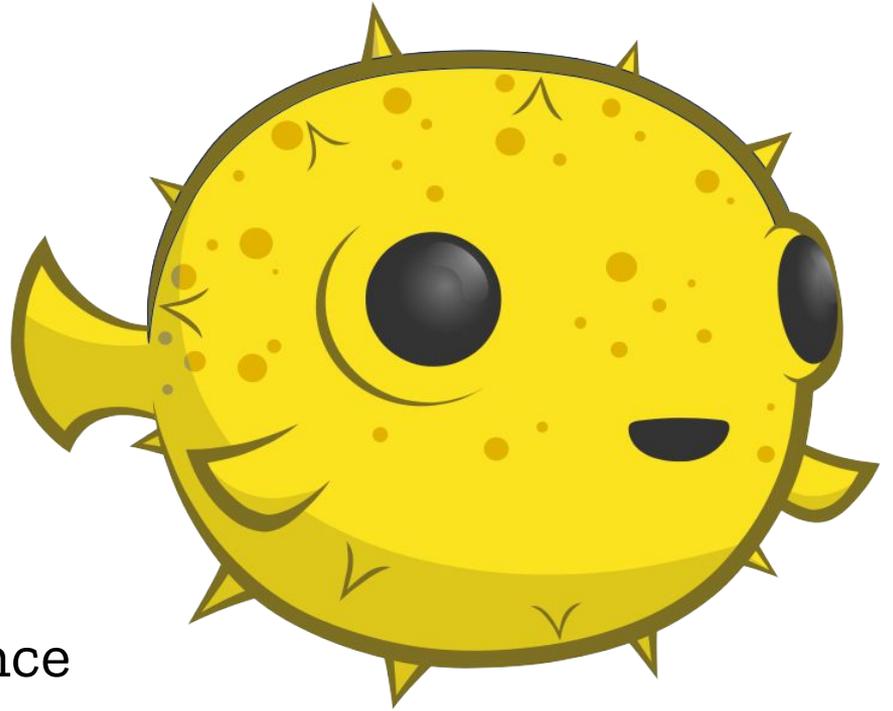
Who am I?

Jente Hidskes

Stockholm, Sweden

Master of Science in Computer Science

Software engineer in the streets, FLOSS contributor in the sheets



What is Cage?

Cage is

a *Wayland* compositor

for a *kiosk-style* user experience



What a kiosk?



Cage's future

Different use-cases are the same, but different

One-size-fits-all compositor, but stick to kiosk-style roots

A set of plug and play abstractions, composed into "strategies"

Cage on phones!

Want to help? Reach out!

Philosophy behind Cage

I'm not a graphics engineer...

... yet I managed to create this awesome compositor!

Can I inspire you to do the same?

Or *join me!* Willing to mentor!

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2020



Thank You



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