

ParticleOS

Can we make Lennart run an image-based distribution?

Dogfooding

“Eating your own dog food, or 'dogfooding', is **the practice of an organization using its own product internally**. It's a great opportunity to view your product from the perspective of customers or clients, and by extension, ensure your user experience is exactly as you want it to be.”



State Of Dogfooding

December 23

Like this comment if you're using run0 and have uninstalled sudo from your laptop



← 1 21:23:24 ✓✓

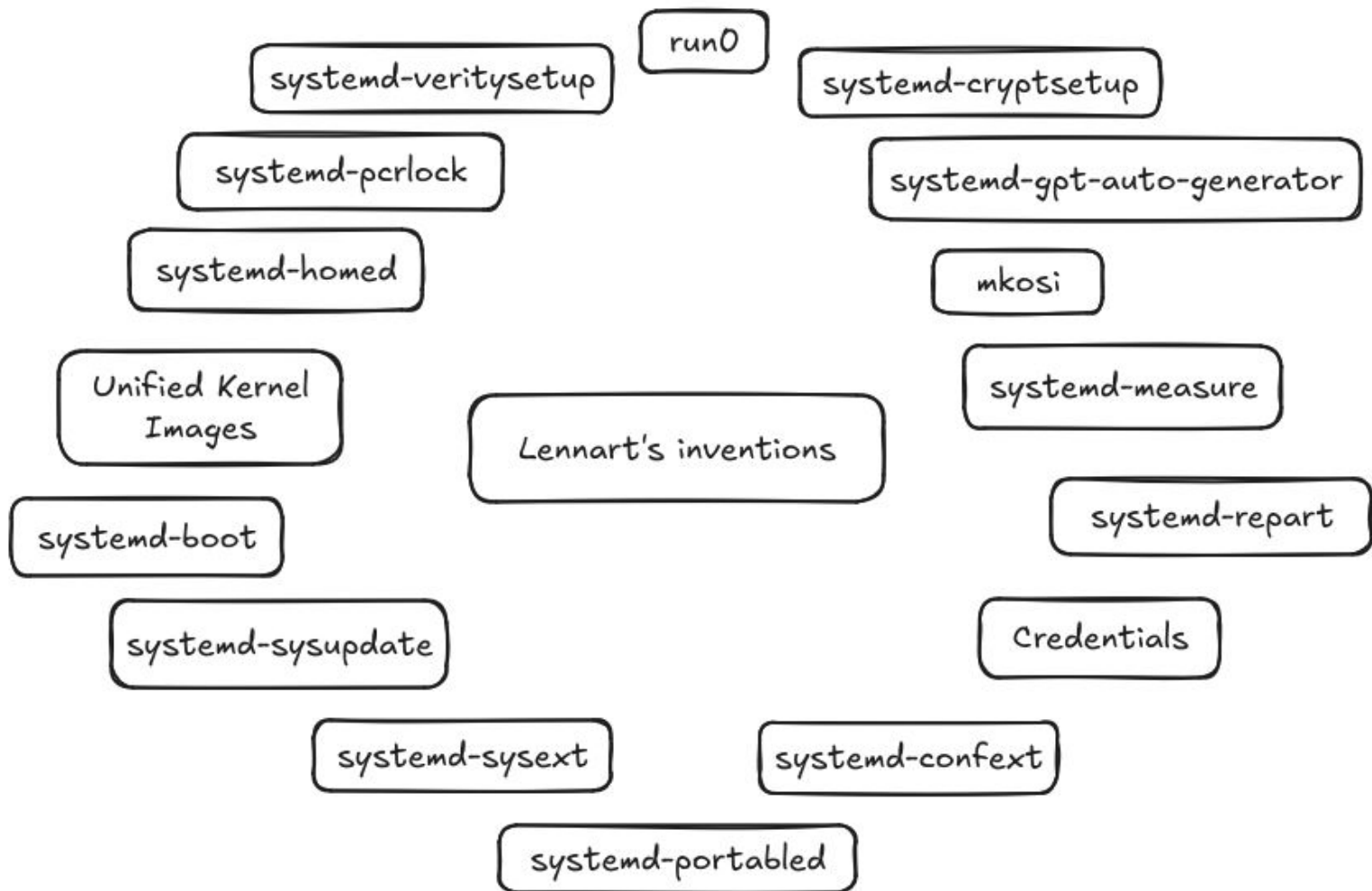


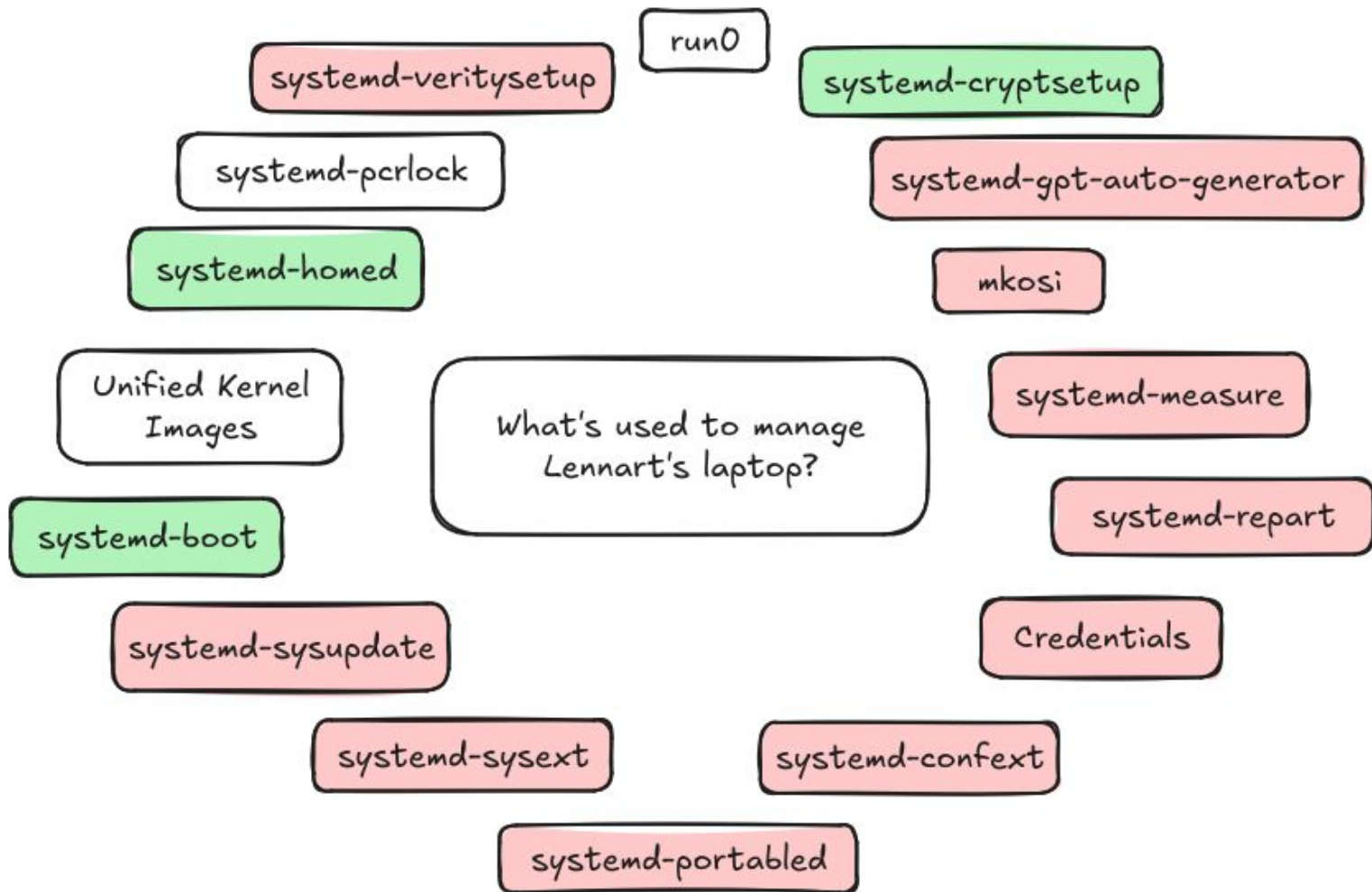
Select

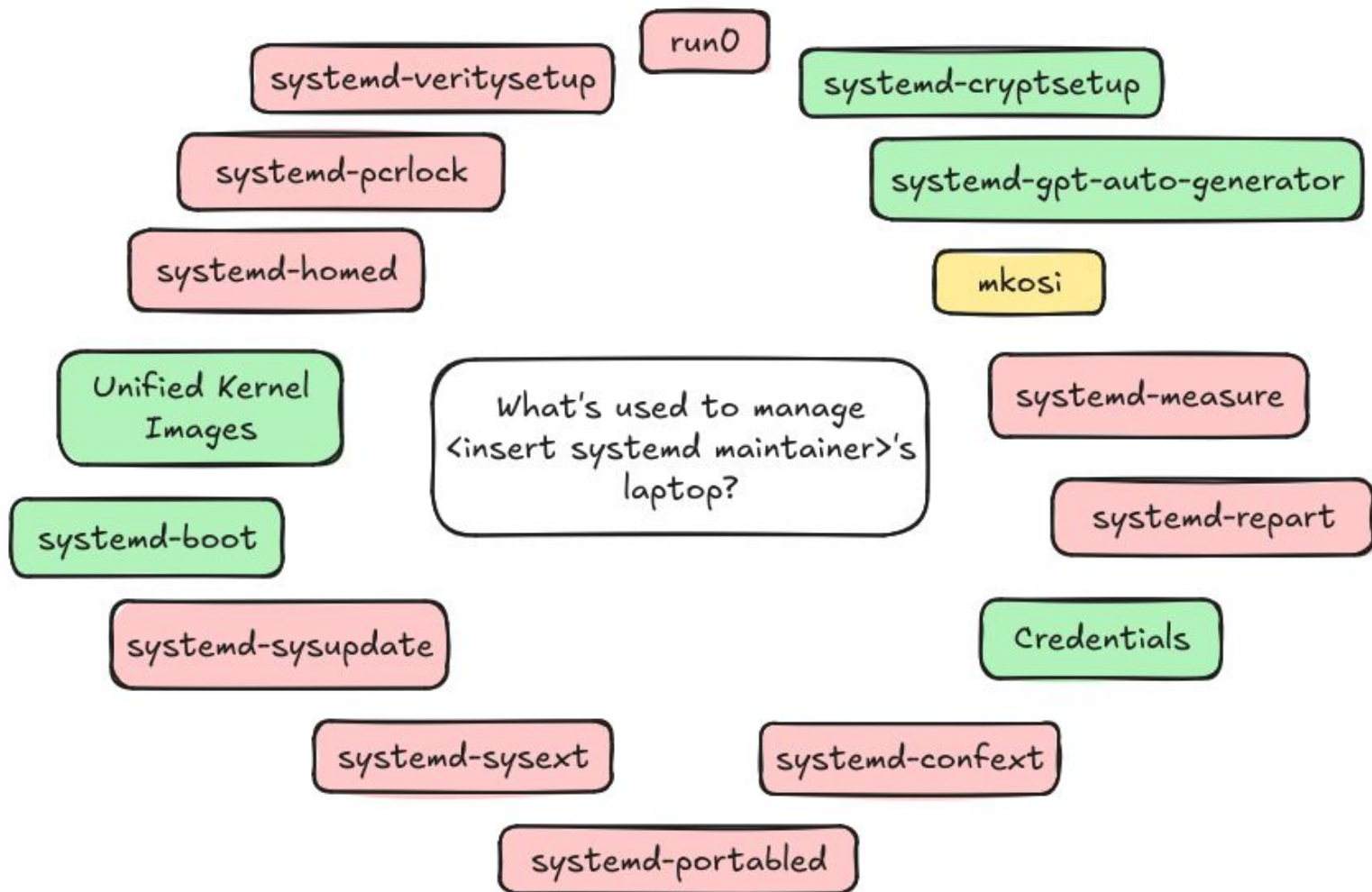


1/18 Reacted









Why is this a problem?

1. We merge lots of **public APIs** without an immediate consumer
2. These **public APIs** end up in a systemd stable release
3. ...
4. Someone tries to use the interface
5. They find out the interface doesn't do exactly what they need
6. We have to figure out how to complete/fix the interface

Why is this actually a problem?

1. ~~We~~ Lennart merges lots of **public APIs** without an immediate consumer
2. These **public APIs** end up in a systemd stable release
3. ...
4. ~~Someone~~ **I try** to use the interface
5. ~~They~~ **I** find out the interface doesn't do exactly what ~~they~~ **I** need
6. ~~We~~ **I** have to figure out how to complete/fix the interface

How do we make
Lennart dogfood
systemd?

How do we make
Lennart his own
consumer?

Create systemd's own
distribution!

Requirements

- Don't reinvent the (entire) wheel
- Gnome
- Use as many systemd tools as possible
- Run systemd from git main
- Enable easy hacking on systemd and the distribution
- Customizable
- Secure + Measured Boot

ParticleOS

- Immutable image-based distribution
- mkosi
- Arch / Fedora
- KDE / Gnome
- Self-signed
- Build it yourself
- <https://github.com/systemd/particleos>

mkosi

git clone <mkosi>



ln -s ~/.local/bin/mkosi
\$PWD/mkosi/bin/mkosi

Pre deployment

git clone <particleos>



\$EDITOR
mkosi.local.conf



mkosi build



DDI

esp

usr-verity

usr



mkosi burn <USB>

Deployment

Set UEFI password



Secure Boot => Setup mode



Boot from USB



Select "Enroll secure boot keys"



Select Installer UKI profile



`systemd-repart --dry-run=no
--empty=force <DRIVE>`



`systemctl reboot`

DRIVE

esp

usr-verity

usr

usr-verity

usr

swap

root

home

First Boot

Select regular UKI profile



systemd-firstboot



homectl firstboot



login



Fix up homed



systemctl enable --now gdm

systemd

git clone <systemd>



mkosi -f sandbox
meson setup build



mkosi -f sandbox
meson compile -C build



mkosi qemu

Update

git clone <particleos>



\$EDITOR
mkosi.local.conf



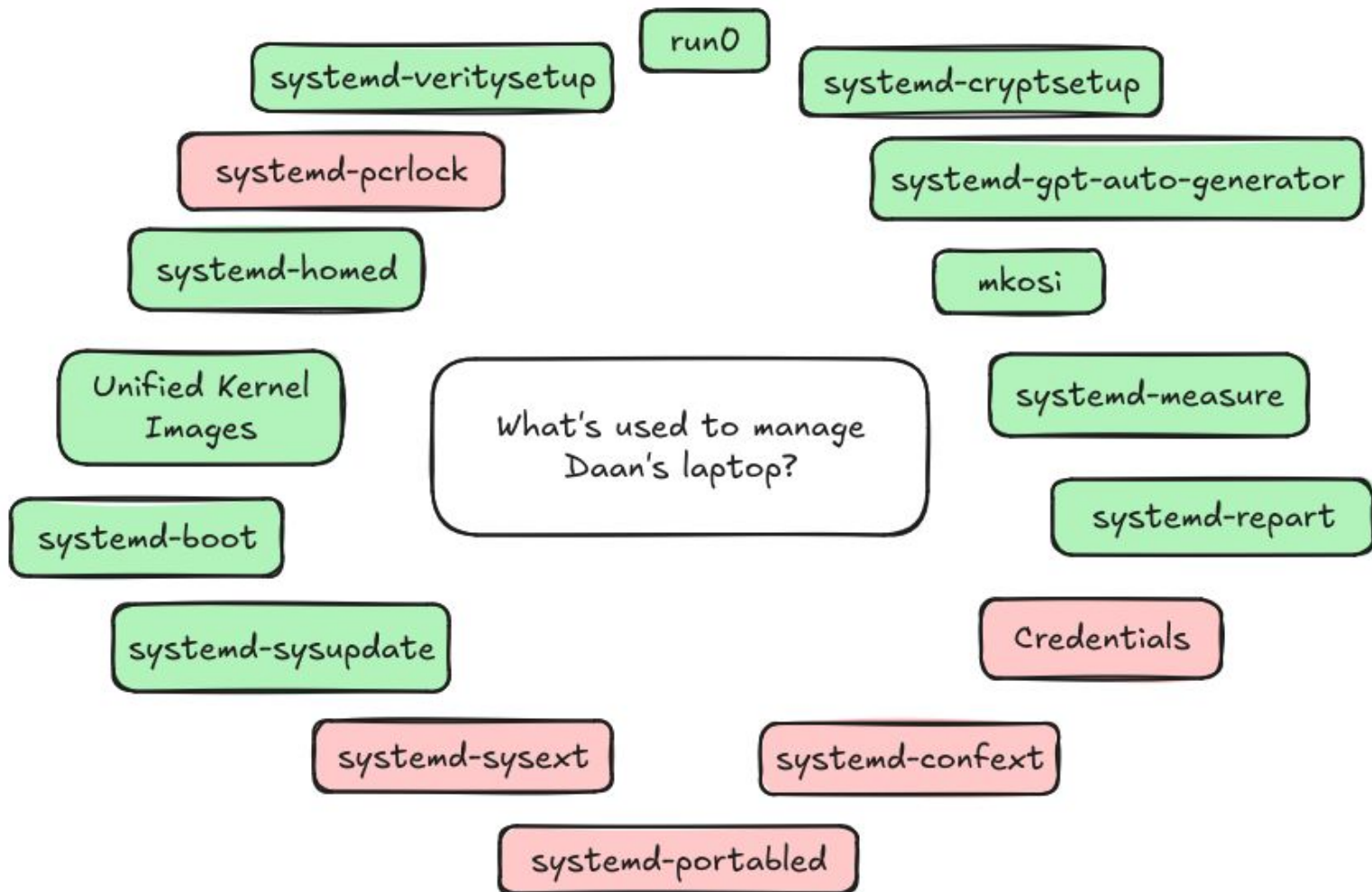
mkosi -f



mkosi sysupdate update



systemctl reboot



It works!

run0 /usr/lib/systemd/systemd-pcrlock gets stuck in do_shovel() #35746



Closed

DaanDeMeyer opened this issue 2 weeks ago · 2 comments · Fixed by [#35752](#)



DaanDeMeyer commented 2 weeks ago

Member



systemd version the issue has been seen with

main

Assignees



yuwata

Labels

Timed out waiting for device dev-tty0.device. #36166



Closed



[#36171](#)



DaanDeMeyer opened 2 days ago

systemd version the issue has been seen with

v258~devel

Kinda?

Add option for `systemctl preset [-all]` to preset units under `/usr/lib`
#33373



Open

septatrix opened this issue on Jun 17, 2024 · 2 comments

Updates made with `homectl` update don't apply immediately or on logout/login
#34529



Open

DaanDeMeyer opened this issue on Sep 23, 2024 · 2 comments

Can't update home if `systemd-homed` can't resize home
#34527



Open

DaanDeMeyer opened this issue on Sep 23, 2024 · 0 comments

Failure to resize home locks the user out of account
#34526



Open

DaanDeMeyer opened this issue on Sep 23, 2024 · 1 comment

Call to ~~action~~ Lennart!

- Let's focus on building **end-to-end** solutions
- Let's always have an immediate **consumer** of any public APIs
 - Either ourselves or a user
- Let's **dogfood** systemd by switching to ParticleOS

What's missing?

- OpenSUSE Build System (OBS) => OBS Profile
 - Will force dogfooding of sysext, credentials, portable services, ...
- systemd-pcrlock
- More distributions (OpenSUSE, Debian, Ubuntu, CentOS Stream)
- More desktop environments
- Dual boot?
- **Somehow get Lennart to adopt ParticleOS**

The End