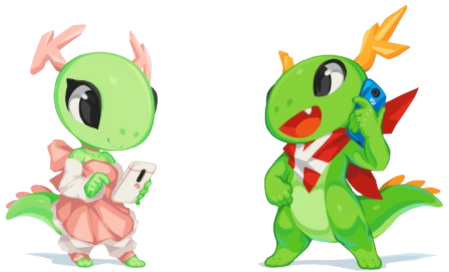


Plasma Mobile in 2022

Akademy

About Us

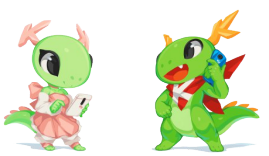
- Bhushan Shah
  - KDE contributor since 2013,
  - Working in automotive industry as a day job.
  - Release co-ordination, development and maintainence
- Devin Lin
  - KDE contributor since 2020
  - 3rd year CS undergrad student in Canada
  - Started as application developer, now does work all around the stack

Overview

1. The Shell
2. The Stack
3. The Ecosystem (Apps)
4. Running Plasma Mobile on Hardware
5. Future Developments

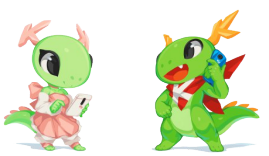
What is Plasma Mobile?

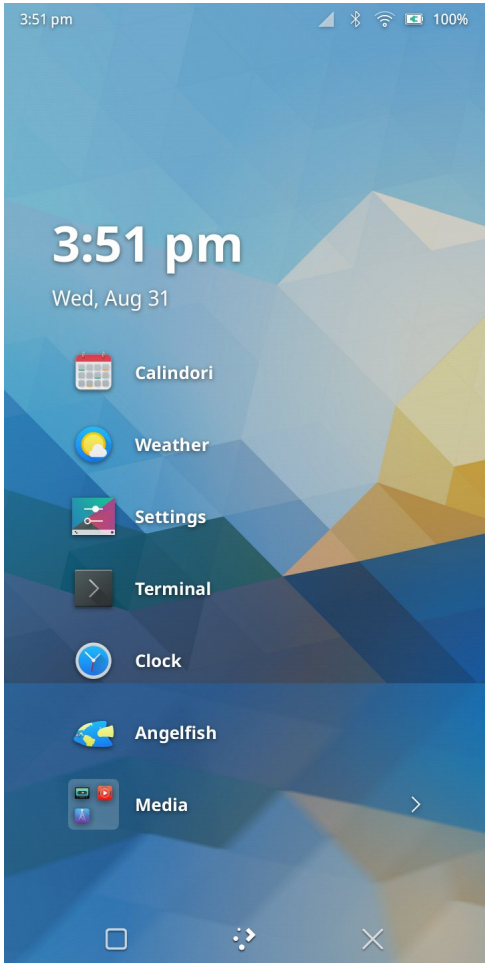
- Can refer to the **ecosystem** or the **shell**
- Plasma “shell” for mobile usecases
- Use mobile versions of certain shell components
- Mostly done through the “look-and-feel” or Global Theme

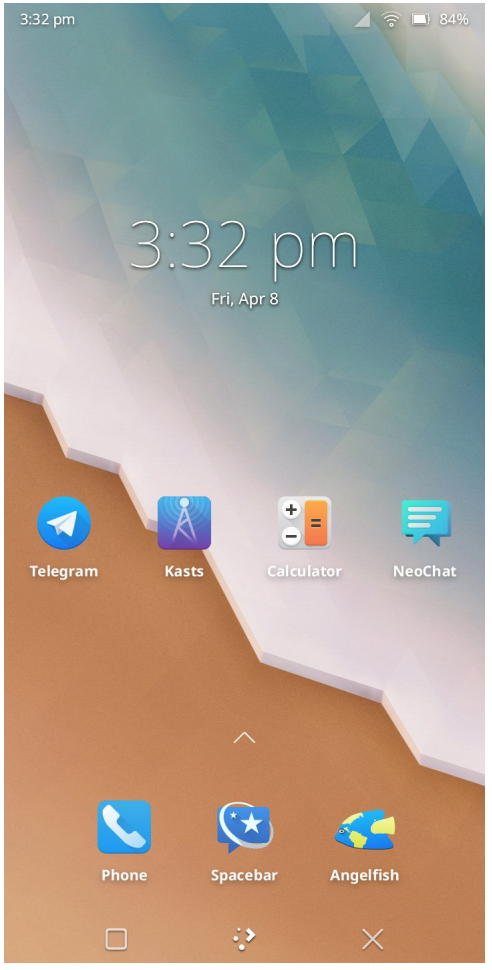


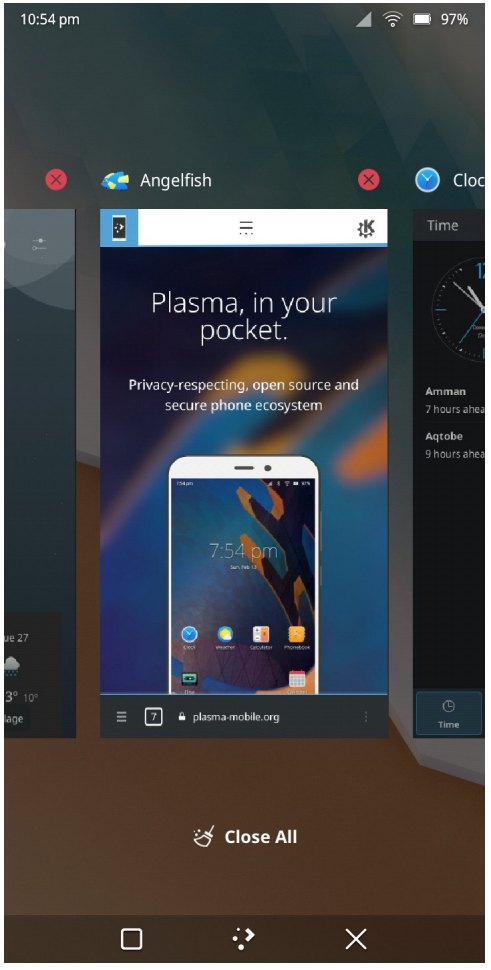
Plasma Mobile in numbers

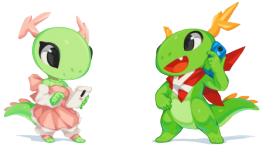
- **2000+** total merge requests
- **40+** projects
- **300+** tickets (includes open + closed)
- **6+** active downstreams

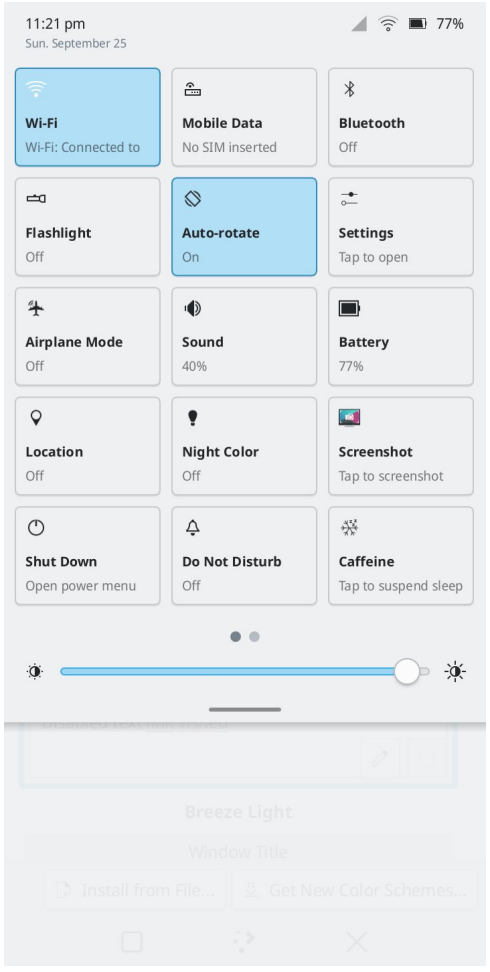


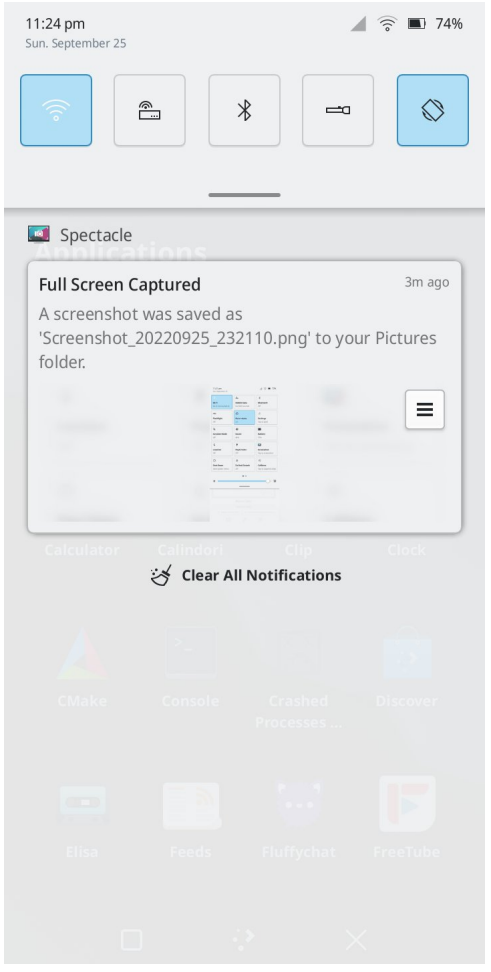

3:51 pm
100%
3:51 pm
Wed, Aug 31
Calindori
Weather
Settings
Terminal
Clock
Angelfish
Media

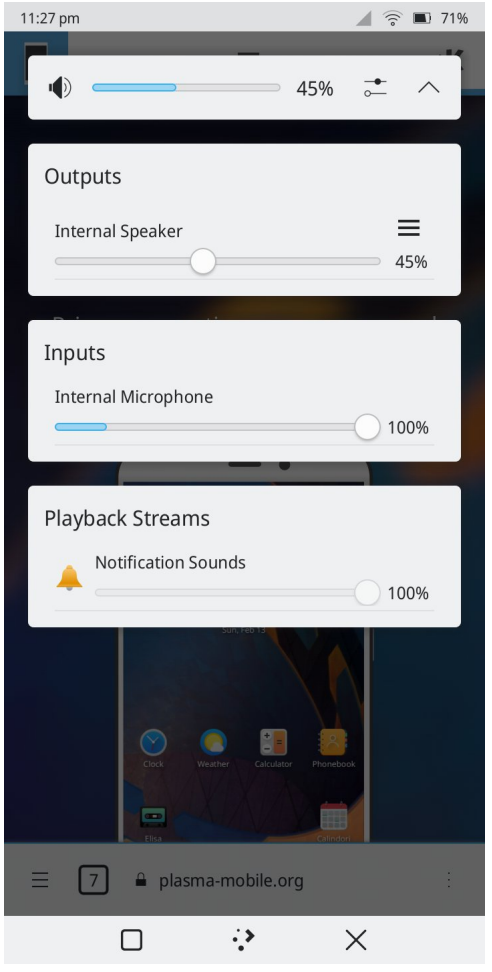

3:32 pm
84%
3:32 pm
Fri, Apr 8
Telegram
Kasts
Calculator
NeoChat
Phone
Spacebar
Angelfish

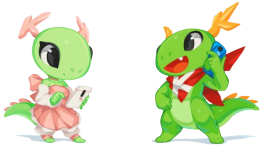

10:54 pm
97%
Angelfish
Plasma, in your pocket.
Privacy-respecting, open source and secure phone ecosystem
7:54 pm
plasma-mobile.org
Time
Close All

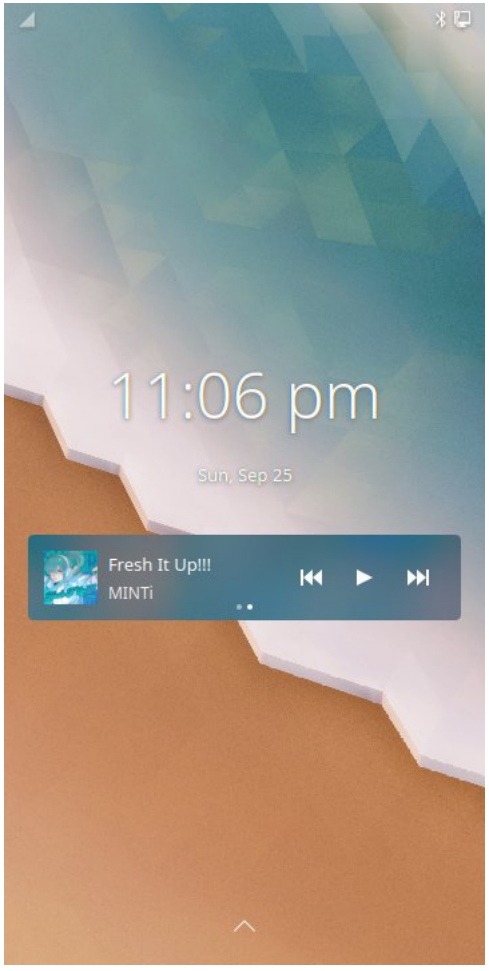


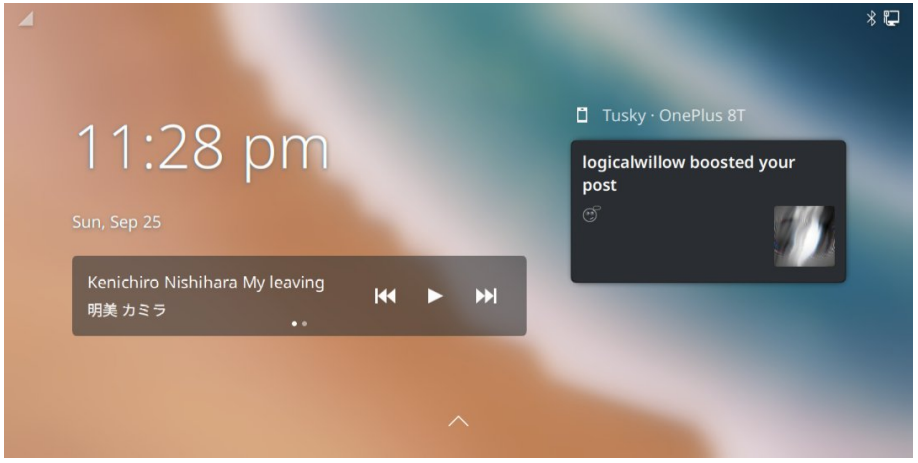

11:21 pm
Sun. September 25
77%
Wi-Fi
Wi-Fi: Connected to
Mobile Data
No SIM inserted
Bluetooth
Off
Flashlight
Off
Auto-rotate
On
Settings
Tap to open
Airplane Mode
Off
Sound
40%
Battery
77%
Location
Off
Night Color
Off
Screenshot
Tap to screenshot
Shut Down
Open power menu
Do Not Disturb
Off
Caffeine
Tap to suspend sleep

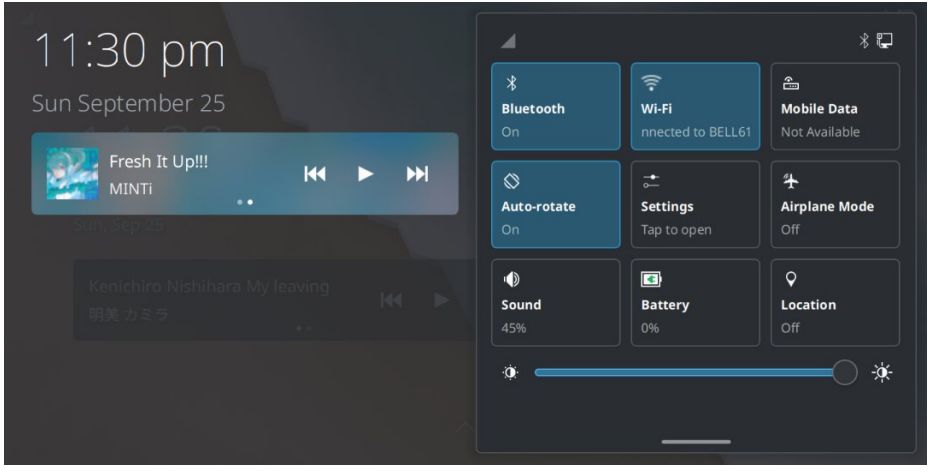

11:24 pm
Sun. September 25
74%
Spectacle
Full Screen Captured
3m ago
A screenshot was saved as 'Screenshot_20220925_232110.png' to your Pictures folder.
Clear All Notifications

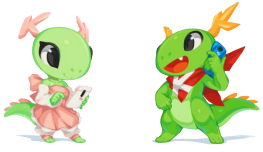

11:27 pm
71%
45%
Outputs
Internal Speaker
45%
Inputs
Internal Microphone
100%
Playback Streams
Notification Sounds
100%
plasma-mobile.org



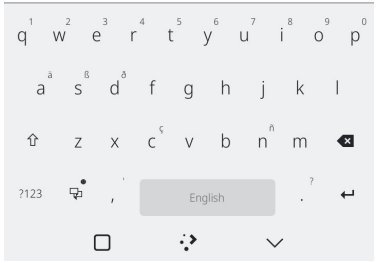

11:06 pm
Sun, Sep 25
Fresh It Up!!!
MINTi


11:28 pm
Sun, Sep 25
Kenichiro Nishihara My leaving
明美 カミラ
Tusky · OnePlus 8T
logicalwillow boosted your post

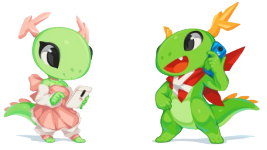

11:30 pm
Sun September 25
Fresh It Up!!!
MINTi
Kenichiro Nishihara My leaving
明美 カミラ
Bluetooth
On
Wi-Fi
nnected to BELL61
Mobile Data
Not Available
Auto-rotate
On
Settings
Tap to open
Airplane Mode
Off
Sound
45%
Battery
0%
Location
Off



Our Stack

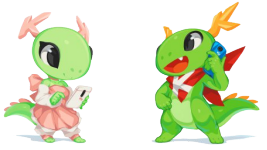


- Qt
- KWin Wayland
- maliit-keyboard
- ModemManager
- hfd-service
- pulseaudio and pipewire
- … what you are accustomed to on desktop



Telephony

- Switched from ofono to ModemManager
- Plasma Dialer for calls
- Spacebar for SMS/MMS
- callaudiod from Mobian for audio routing



Plasma Mobile stack evolution

- Ofono to ModemManager migration and telephony improvements
- Major improvements in KWin compositor
  - Window overlay support for lockscreen
  - Virtual keyboard input improvements
  - Support for Xwayland clients in virtual keyboard
- Performance enhancements

Applications

- Several convergent applications
  - Example: Discover, Elisa, Koko, Kasts, Neochat, KClock....
- Some mobile equivalents of desktop apps
  - Example: Angelfish (Browser), QMLKonsole, Index
- Released as
  - **Plasma Mobile Gear**
  - **KDE Gear (Release service)**
  - **Maui applications**
  - Available as Flatpaks on Flathub

Alligator
Feed Reader

Angelfish Web Browser
Web Browser

AudioTube
Convergent YouTube Music client

Calculator
A feature rich calculator

Calindori
Calendar

Clock
Set alarms and timers, use a stopwatch, and manage world clocks

Elisa
Music Player

GCompris
Educational Game for Children

Index
File Manager

Kaidan
Jabber IM Client

Kalendar
Calendar application

KAlgebra Mobile
Pocket Graph Calculator

Kasts
Podcast Application

KDE Itinerary
Itinerary management

Keysmith
Two-factor code generator for Plasma Mobile and Desktop

Kirogi
Drone ground control

Koko
Image Gallery

Kongress
Conference Companion

Kontrast
A Color Contrast Checker

KTrip
Public transport navigator

NeoChat
Matrix Client

Okular
Document Viewer

Peruse
Comic Book Reader

Phone
Send and receive phone calls

Phonebook
View and edit contacts

Pix
Image Gallery

Plasma Camera
Camera Application

PlasmaTube
Watch YouTube videos

QMLKonsole
Terminal

Recorder
Audio recorder

Spacebar
SMS/MMS Application

Tokodon
Mastodon Client

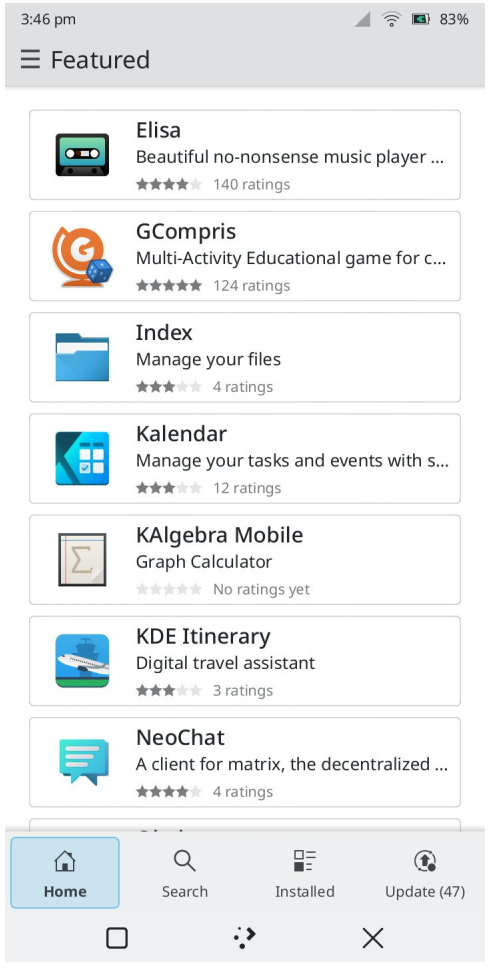
Vakzination
Manage your vaccination certificates

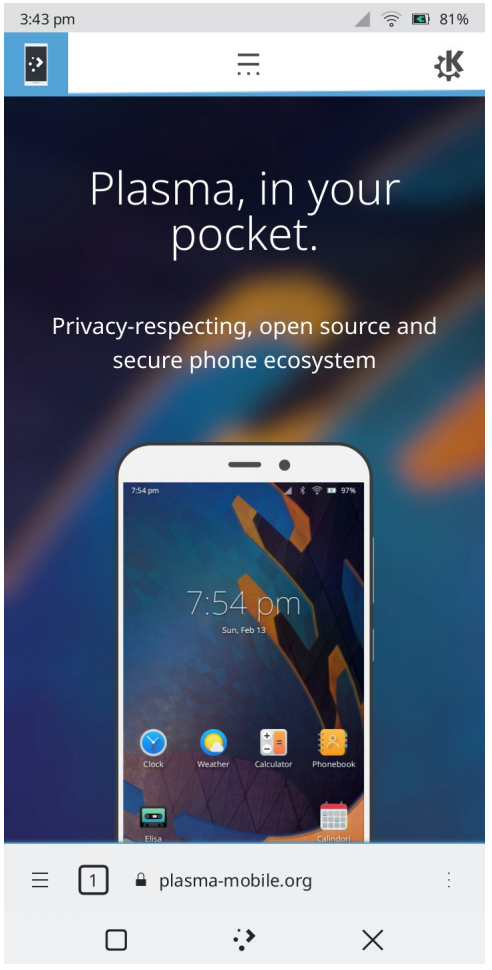
Vvave
Audio Player

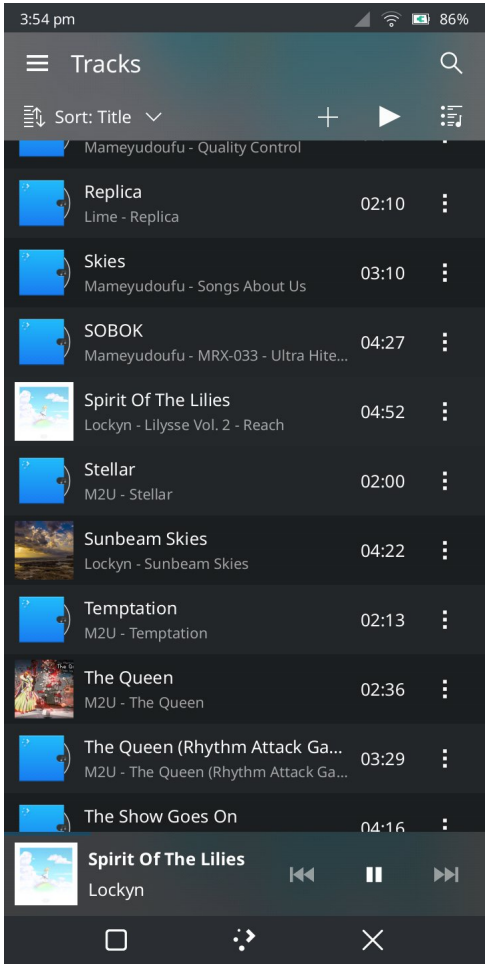
Weather
View real-time weather forecasts and other information

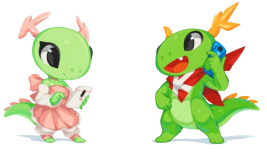
Kirigami

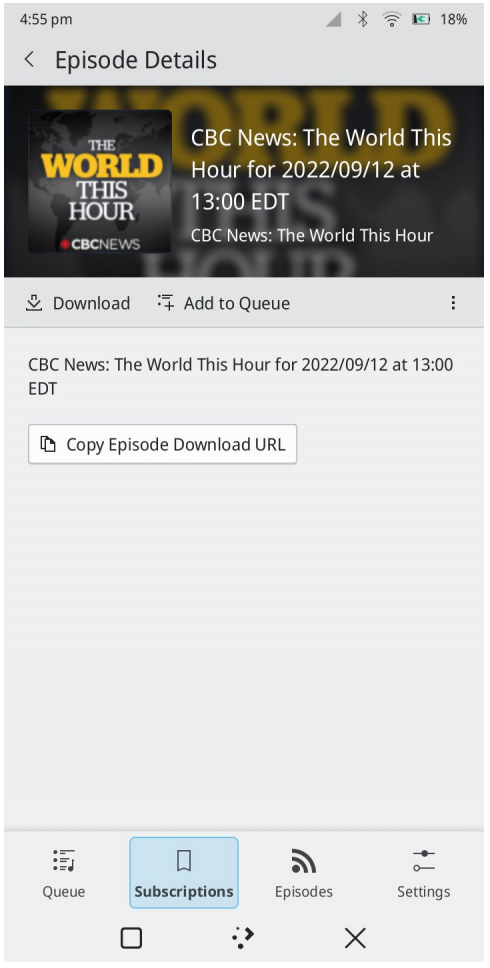
- Primarily developed using **Qt Quick**
- New components
  - NavigationTabBar
  - Dialog
  - Form components

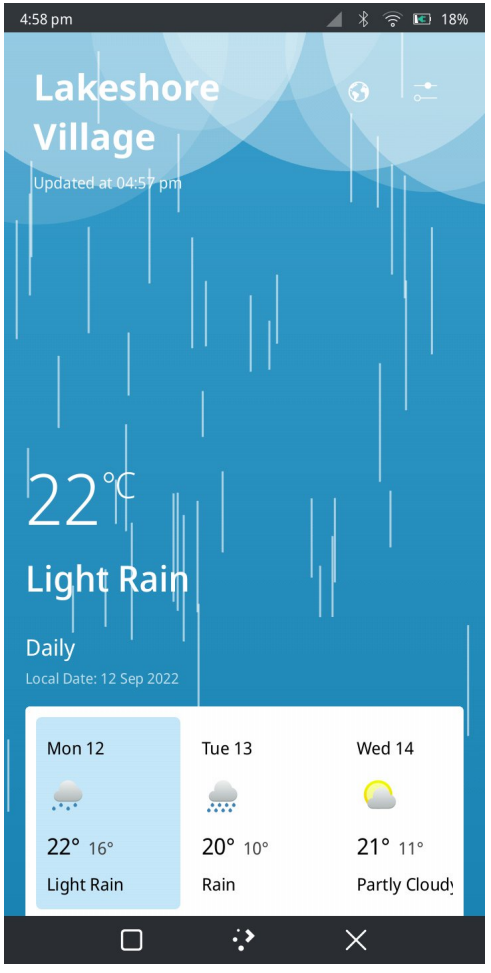

3:46 pm
83%
Featured
Elisa
Beautiful no-nonsense music player ...
140 ratings
GCompris
Multi-Activity Educational game for c...
124 ratings
Index
Manage your files
4 ratings
Kalendar
Manage your tasks and events with s...
12 ratings
KAlgebra Mobile
Graph Calculator
No ratings yet
KDE Itinerary
Digital travel assistant
3 ratings
NeoChat
A client for matrix, the decentralized ...
4 ratings
Home
Search
Installed
Update (47)

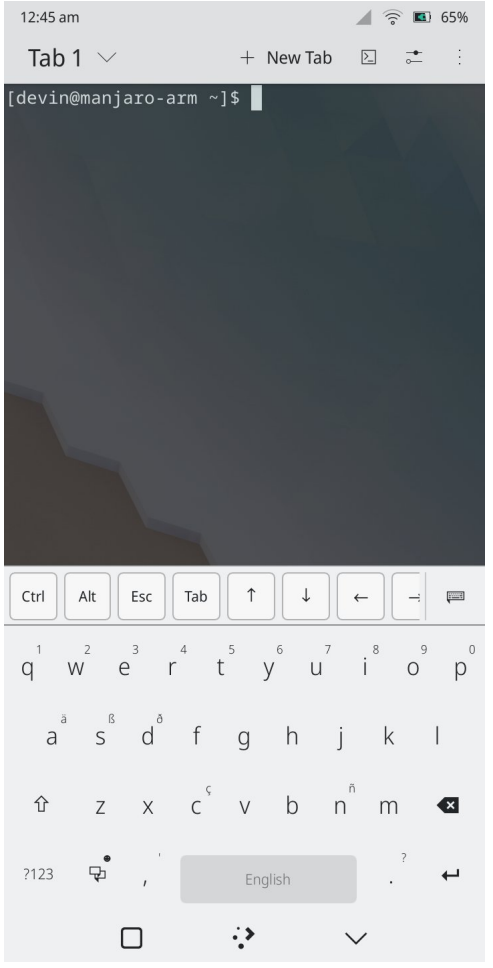

3:43 pm
81%
Plasma, in your pocket.
Privacy-respecting, open source and secure phone ecosystem
7:54 pm
Sun, Feb 13
Clock
Weather
Calculator
Phonebook
plasma-mobile.org

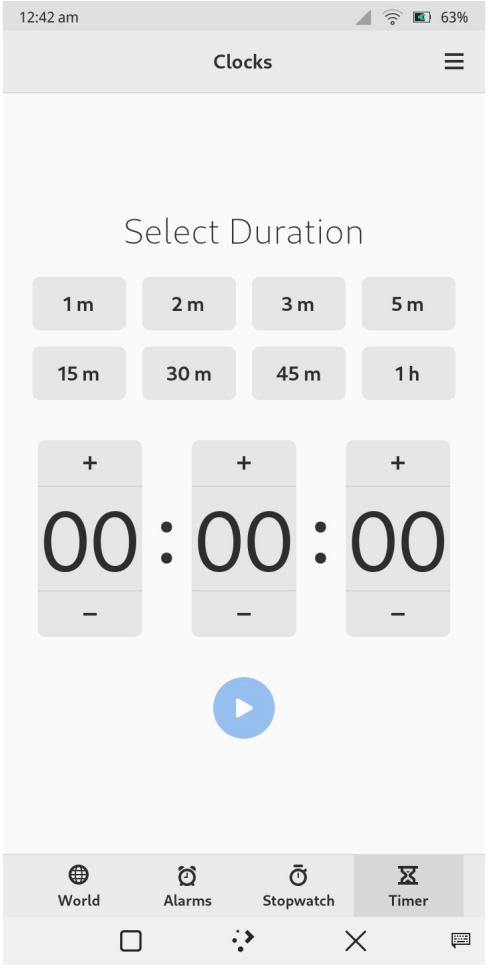

3:54 pm
86%
Tracks
Sort: Title
Mameyudoufu - Quality Control
Replica
Lime - Replica
02:10
Skies
Mameyudoufu - Songs About Us
03:10
SOBOK
Mameyudoufu - MRX-033 - Ultra Hite...
04:27
Spirit Of The Lilies
Lockyn - Lilysse Vol. 2 - Reach
04:52
Stellar
M2U - Stellar
02:00
Sunbeam Skies
Lockyn - Sunbeam Skies
04:22
Temptation
M2U - Temptation
02:13
The Queen
M2U - The Queen
02:36
The Queen (Rhythm Attack Ga...
M2U - The Queen (Rhythm Attack Ga...
03:29
The Show Goes On
Spirit Of The Lilies
Lockyn

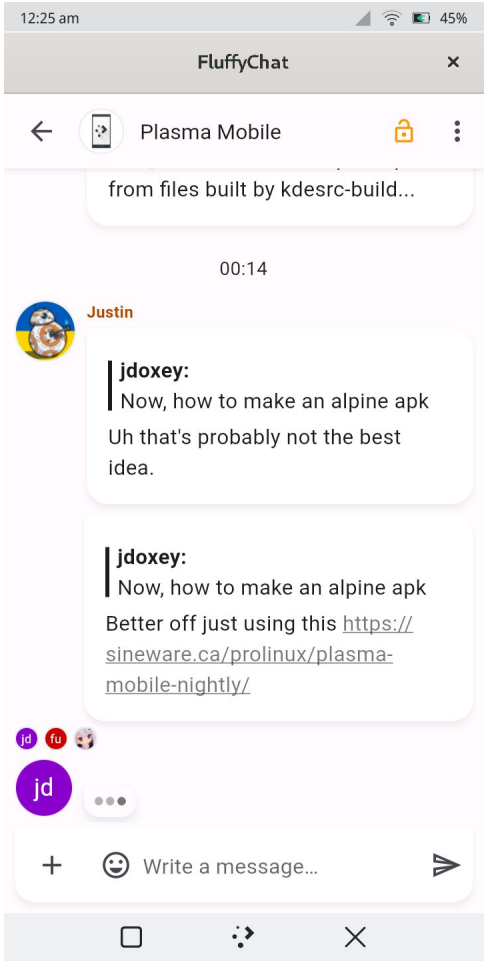


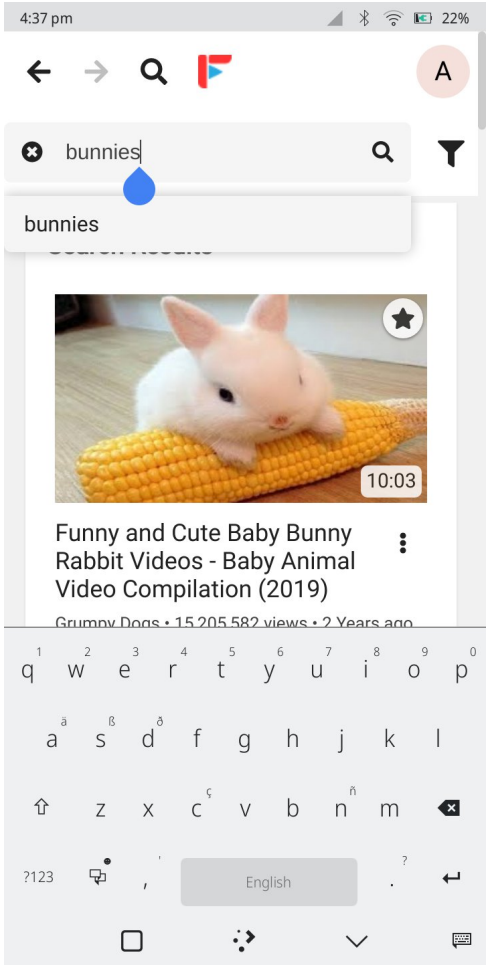

4:55 pm
18%
Episode Details
CBC News: The World This Hour for 2022/09/12 at 13:00 EDT
CBC News: The World This Hour
Download
Add to Queue
CBC News: The World This Hour for 2022/09/12 at 13:00 EDT
Copy Episode Download URL
Queue
Subscriptions
Episodes
Settings


4:58 pm
18%
Lakeshore Village
Updated at 04:57 pm
22°C
Light Rain
Daily
Local Date: 12 Sep 2022
Mon 12
22° 16°
Light Rain
Tue 13
20° 10°
Rain
Wed 14
21° 11°
Partly Cloudy


12:45 am
65%
Tab 1
New Tab
[devin@manjaro-arm ~]$
Ctrl
Alt
Esc
Tab
?123
English

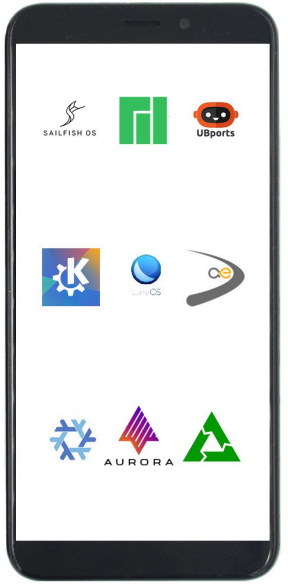

12:42 am
63%
Clocks
Select Duration
1 m
2 m
3 m
5 m
15 m
30 m
45 m
1 h
00 : 00 : 00
World
Alarms
Stopwatch
Timer

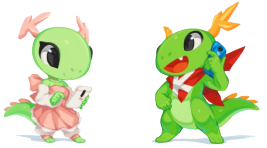

12:25 am
45%
FluffyChat
Plasma Mobile
from files built by kdesrc-build...
00:14
Justin
jdoxey:
Now, how to make an alpine apk
Uh that's probably not the best idea.
jdoxey:
Now, how to make an alpine apk
Better off just using this https://sineware.ca/prolinux/plasma-mobile-nightly/
Write a message...


4:37 pm
22%
bunnies
bunnies
10:03
Funny and Cute Baby Bunny Rabbit Videos - Baby Animal Video Compilation (2019)
English

Using on hardware

- Halium support was dropped, only mainline devices supported
- Pine64 PinePhone and PinePhone Pro
- Various devices supported, see pmOS
  - Ex. OnePlus 6
- Can be installed as regular packages too!
  - Packaged in Alpine, Fedora, Manjaro ARM, postmarketOS, Arch Linux ARM, openSUSE, Fedora





Major challenges for future

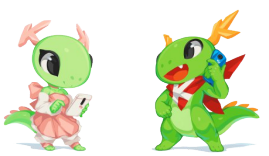
- More and more vendor lock-in
- Lack of more generalized adaption of open mobile projects
- Fragmentation and lack of collaboration between open mobile communities

Looking forward to 2023 and beyond

- Improved **stability** and **performance**
  - Create better workflows to find performance issues, track regressions
- KDE **PIM** (calendars, email, contacts...)
  - Bring the stack to mobile
- Improved **tablet support**
  - Make it easy to install and use on x86 devices
- **Convergence**
  - Better support for multiple displays, multi-window mode

Looking forward to 2023 and beyond

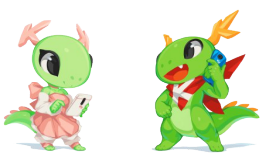
- More mainline devices, shoutout to postmarketOS!
- More active contributors
- Hoping that Plasma Mobile becomes a stepstone for people looking to contribute to KDE
- More hardware vendors that support Linux Mobile

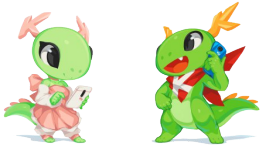


Contribute!

- We want more contributors!
- Application development: https://develop.kde.org
- Design and UX improvements
- More testing
- Join us on **Matrix**: https://matrix.to/#/#plasmamobile:matrix.org

Website: plasma-mobile.org



Questions?

Meet us in Plasma Mobile BoF at Room 2 on Monday @ 17:00