

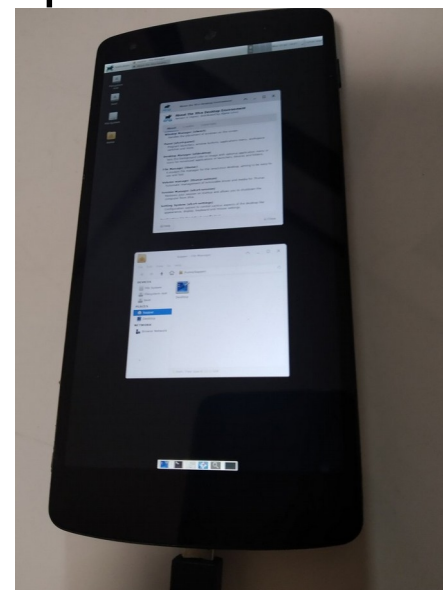
第三款智能手機操作系統黑客和各種小工具改造了 COSCCUP 2019的最新信息

Hacking the third Smartphone OS and Some Mobile device in COSCCUP 2019

Nexus5+XFCE4+
+postmarketOS

- 1、 Self introduction
- 2、 Recently my activities
- 3、 The third Smartphone OS hacking
- 4、 The processor and OS hacking
- 5、 Recently Intel devices
and the recently my hacking

This presentations will be in Slideshare
[@kapper1224](#)



This Presentation:
Slideshare & PDF files
publication of my HP
<http://kapper1224.sakura.ne.jp>

台灣COSCCUP 18/8/2019 10:35~11:05
Place: 國立臺灣科技大學
ROOM : IB202

Tokaido Linux User Group
Gadget Hacking User Group
Speaker : Kenji Shimono

自己紹介 Self Introduction

- My pen name: Kapper
- Twitter account: [@kapper1224](https://twitter.com/kapper1224)
- HP: <http://kapper1224.sakura.ne.jp>
- Slideshare: <http://www.slideshare.net/kapper1224>
- ニコナレ: <http://niconare.nicovideo.jp/users/59379263>
- Facebook: <https://www.facebook.com/kapper1224/>
- My Hobby: Linux, *BSD, and Mobile Devices
- My favorite words: The records are the more important than the experiment.
- Test Model: Netwalker(PC-Z1,T1)、Nokia N900、DynabookAZ、RaspberryPi
Nexus7(2012、2013)、Nexus5、OpenPandora、Chromebook、
Fx0 (FirefoxOS)、台湾Android電子辞書 無敵CD-920、CD-928
GPD-WIN、GPD-Pocket、Windows Tablet、SailfishOS、UBPorts
- Recent my Activity:
Hacking Linux on Windows10 Tablet (Intel Atom) and Android Smartphone.
Hacking NetBSD and OpenBSD on UEFI and Windows Tablet.
I have been exhibiting in NT Nagoya, NT Kanazawa, Oogaki Mini MakerFaire.
I have over 160 Windows Tablet and 80 ARM Android, and test it now.



後、最近小説家になろうで異世界で製造業と産業革命の小説書いていますなう。

Recently my activities



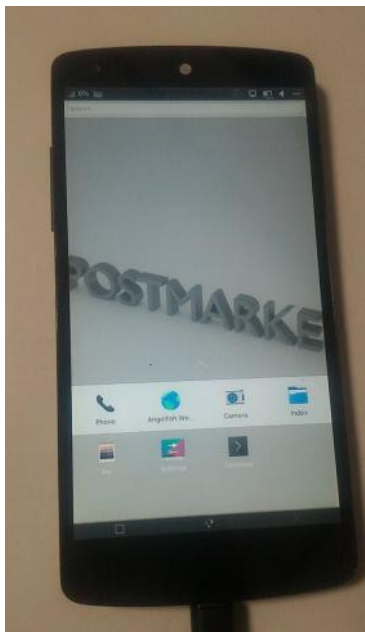
Sailfish X on Xperia X



UBPorts on Nexus5
Nexus7 2013



NetBSD、OpenBSD、FreeBSD
Some Linux on Windows Tablet



postmarketOS on
Nexus5, Nexus7 2012



Reports Linux on
Windows Tablet in Amazon



My Activities on OSC,NT, MakerFaire,
Fossasia and Taiwan

Inexpensive Windows Tablet

- Recently Intel Tablet is too inexpensive, in Japan and Akihabara. Let's install any Linux distributions.
- Because Old Windows tablet is not supported driver after **Windows 10 Creators Update**. So They will be not supported, and selling 「JUNK」 grade.

Android(JUNK!)

ジャンク Android
タブレット各種

マウスコンピューター MCJ LuvPad
AD701 / AD702TV / AD705C
AD708 / MID407 / MID407W

本体のみ(電源アダプタ無し)、動作保証無し

1,000円税込
税別価格 926円

US\$9

Windows (JUNK!)

Diginnos DG-D08IWB 16GB
(Z3735F/2GB/16GB/8インチ)

完品 保証期間:なし

シリアル番号:81460000186841
在庫店舗:神戸三宮(中古)
出荷予定日:入金確認後、3営業日以内
※「中古通販センター」からの出荷は平日のみとなります。

ドスパラ特価: **1,690円(+税)**

ドスパラ会員ポイント還元: 0ポイント
PS会員ポイント還元: 37ポイント
[▶PS\(プレミアムサービス\)の加入はこちら](#)

カートに入れる

画像以外の写真はイメージです。実際の商品状態を保証するものではありません

US\$15

Reuse Tablet and SmartPhone on Linux

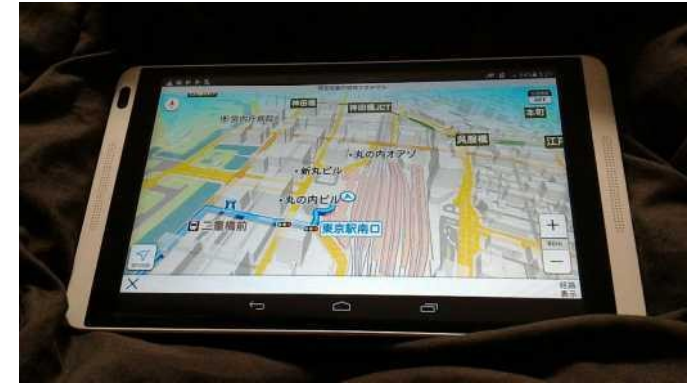
Desktop and Mobile, A lot of application use Debian and Android-x86



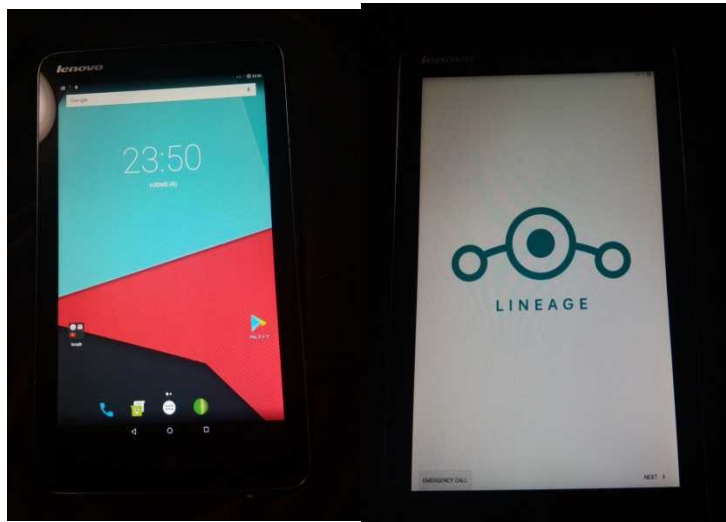
Computer school



AI/IoT, Thinclient, monitor



TV, Car navigations



Android-x86 and multi-boot
Qemu and virtualbox emulations



Wine and Steam, Windows Game
Exagear and x86Wine Emulations
Antimicro Keyboard Emulations



Desktop、Office
Server、Terminal、Develop
Music、3D、CAD

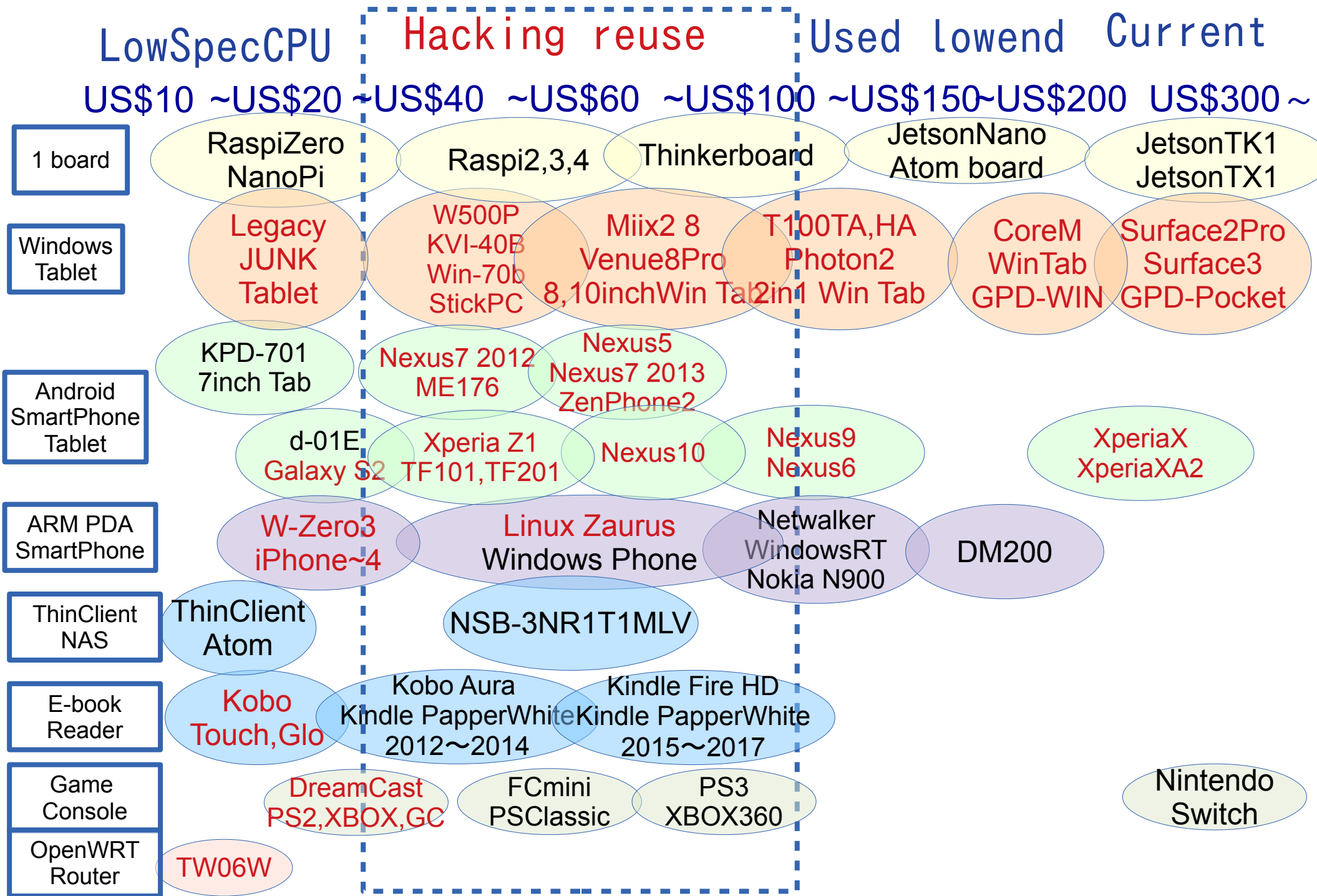
What's OS can install in some devices?

6

Distributions	iphone 5~	Android	Windows Tablet	Rasp berryPi	Windows Phone	Kobo	Linux Zaurus	Nintendo Switch	Comments
Windows 10 ARM	×	×	×	△	△	×	×	×	ARM
Ubuntu	×	△	◎	◎	×	×	×	△	Desktop
Debian	×	△	◎	◎	×	△	?	△	Desktop
ArchLinux	×	△	◎	◎	×	×	△	△	Desktop
CentOS	×	△	△	○	×	×	×	×	Desktop
FreeBSD	×	×	△	◎	×	×	×	△	Desktop
NetBSD	×	×	△	◎	×	△	◎	×	Desktop
Android-x86	—	—	◎	—	—	—	—	—	x86
ChromeOS	×	×	◎	◎	×	×	×	?	x86、ARM
LineageOS	×	◎	◎	◎	△	△	×	△	ARM、x86
SailfishOS	×	◎	?	○	×	×	×	×	ARM
PlasmaMobile	×	◎	○	△	×	×	×	×	ARM、x86
Maemo	×	○	?	◎	×	×	×	×	ARM、x86
Armbian	×	△	—	◎	×	×	×	×	ARM
postmarketOS	×	◎	◎	◎	△	×	×	×	ARM、x86
UBPorts	×	◎	×	×	×	×	×	×	ARM

Official supported◎、 Official reported○、 User reported△、 No reported ×

Used and JUNK Devices on Japan in 2019



The third SmartPhone OS hacking

Attentions Please!

- Detailed OS Install processes are my slideshare and PDF... I'm sorry, Please read it...
- This session is **introducing OS hacking methods.**
- 「Hacking with **x86 Windows Tablet** and mobile devices on Linux **#FOSSASIA**」
 「Hacking with **x86 Windows Tablet** and mobile devices on Debian **#debconf18 台湾**」
 「**NetBSD8.0** on UEFI Bootloader and Windows Tablet」
 「Beginner for install **Ubports on Nexus5**」
 「Beginner for install **Sailfish X on Xperia X**」
 「Beginner for install **postmarketOS in Smartphone**」
 「Beginner for install ArchLinux and NetBSD in **LinuxZaurus** in 2019」
 ...and more from 2002.

Be the first to clip this slide

はじめてのUbports16.04インストール Nexus5
Beginner for install Ubports on Nexus5

1. 自己紹介 Self introduction
2. Hacking Nexus5
3. UBportsとは?
4. Supported Devices
5. UBports OTA Changelog
6. Installer on Desktop
7. Operation System
8. Terminal
9. Install Anbox
10. Extend SWAP.img
11. Desktop Applications

詳しい話はSlideshareで公開中
@kapper1224

発表未定
Place:

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Slideshare & PDF files
publication of my HP
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ガジェットハッキング
ユーザーグループ(改名)
Speaker: Kapper

1 of 16

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Beginner for install Ubports on Nexus5 はじ 8,968 views
 じめてのUbports16.04インストール Nexus5
 #UBports

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はじめてのSailfish Xインストール「Xperia X (輸入版)」
Beginner for install Sailfish X on Xperia X

1. 自己紹介 Self introduction
2. Recently my activities
3. Do you know SailfishOS?
4. What's Sailfish X?
5. Install Sailfish X on Xperia X
6. Hacking Nexus5 about USS 40.
7. Known issues

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小江戸らぐ 2019年3月9日 14:00~
Place:東京 サイオステクノロジー 9F

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Gadget Hacking
User Group
Speaker: Kapper

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Beginner for install Sailfish X on Xperia X 5,556 views
 はじめてのSailfish Xインストール「Xperia X (輸入版)」 #koedolug

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はじめてのpostmarketOSインストール スマートフォン
Beginner for install postmarketOS in Smartphone

1. 自己紹介 Self introduction
2. Recently my activities
3. What's postmarketOS?
4. Supported devices
5. Install postmarketOS on Nexus5
6. Hacking Nexus5 about USS 40.
7. pmbootstrap.py
8. Known issues

詳しい話はSlideshareで公開中
@kapper1224

東海道らぐ横浜 2019年5月18日 13:00~
Place: 神奈川県横浜市西区富島2-6-32
株式会社ジェイエスピー 会議室Red

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Gadget Hacking
User Group
Speaker: Kapper

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Beginner for install postmarketOS in Smartphone 3,478 views
 はじめてのpostmarketOSインストール スマートフォン

Be the first to clip this slide

はじめてのArchLinux,NetBSDインストール in Linux Zaurus
Beginner for install ArchLinux and NetBSD in LinuxZaurus

1. 自己紹介 Self introduction
2. Recently my activities
3. Linux Zaurus in 2019
4. Supported Mainline Kernel
5. Install Arch Linux in Linux Zaurus.
6. Install NetBSD in Linux Zaurus.
7. Conclusion

詳しい話はSlideshareで公開中
@kapper1224

LILO&東海道らぐ 関西2019年8月10日 13:00~
Place: 西宮市立中央公民館403集会所

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Gadget Hacking
User Group
Speaker: Kapper

1 of 19

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Beginner for install ArchLinux and NetBSD in LinuxZaurus in 2019 はじめての ArchLinux,NetBSDインストール in Linux Zaurus 581 views

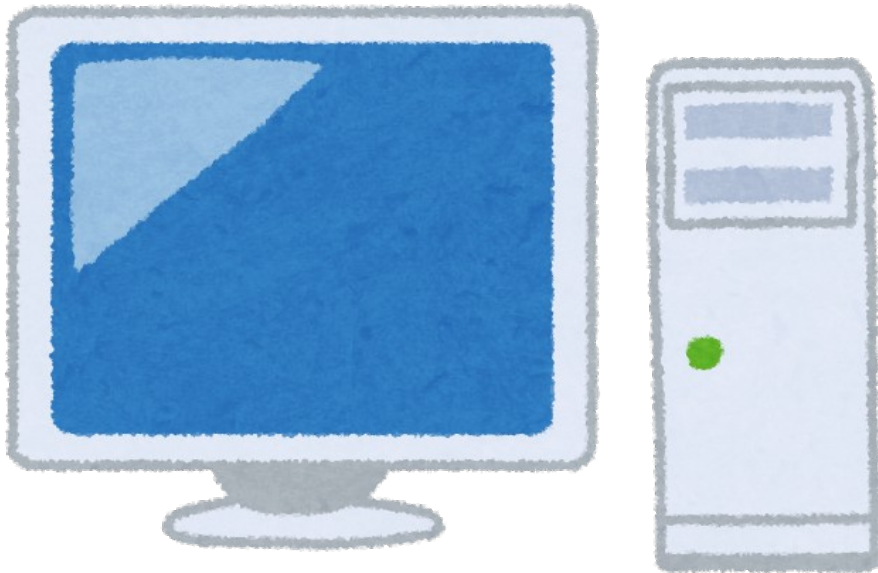
Some old smartphone and tablet

- A lot of old smartphone and tablet don't have been using now.
- **The old devices are very inexpensive** and still left over.
- They can use the server, desktop and reuse.
- But **ARM mobile devices are difficult to install Linux.**
- The Android Custom ROMs may fail to install it.
- The **windows tablet are easy to install Linux**, but the prices still does not down...
- The **Nexus5 is more inexpensive and attractive devices**, Let's hacking it.

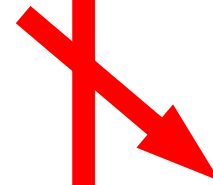
Low cost PC VS High cost PC?

- High cost PC need perfect specs.
- But Low cost PC is good if the one is better... like RaspberryPi, I think it.

High Spec PC = Perfect!?



Low Spec PC = the one is better



The recently inexpensive devices

- The Old **Galaxy and Xperia are very hackable devices**, because they were sold a lot around the world.
- The SmartPhone OS have a lot of underground OS, So they are dangerous and interesting, I think it.

Galaxy S2、 S3



US\$18 ※画像はイメージです
1,980円 (税込)

Xperia Z



US\$28 ※画像はイメージです
2,980円 (税込)

Galaxy Tab 10.1



US\$28 ※画像はイメージです
2,980円 (税込)

The Custom ROMs limitations

- The Android customROMs are **recommended ver 4.4.4 or ver 7.1.2**. They are faster than the other versions.
- The Smartphone device **models selling in the world**, have much more informations and ROMs. I recommended it. But recently models are difficult to hack.

Galaxy S2、S3



US\$18 ※画像はイメージです
1,980円 (税込)

Galaxy S II Android Development		Sort	Forum Tools	Search this Forum	Views: 6,387,248
Announcement: Forum Rules by MikeChannon (Forum Admin)					
Sticky: Samsung International Moderation Team Thread by The-Captain				16th February 2013 03:06 AM by The-Captain	Replies: 0 Views: 25,441
Sticky: [For Developers] Reviewing the Thread Tittle Thread by daniel_costa_rj				1st April 2012 08:09 PM by TheATHEIST	Replies: 9 Views: 26,015
XDA.DEVDB [ROM][UNOFFICIAL][9.0.0][r40][i9100] LineageOS 16.0 [BETA]	1 2 3 »			Yesterday 02:53 PM by pippone121263	Replies: 551 Views: 110,656
[ROM][Unofficial][4.4.4] LineageOS 11.0 based for Galaxy S2 GT-I9100 [2019-06-10]	1 2 3 »			5th July 2019 07:37 AM by TriboDoP	Replies: 250 Views: 49,689
XDA.DEVDB [ROM][i9100][OFFICIAL][7.1.2] LineageOS 14.1	1 2 3 »			1st July 2019 09:16 PM by andreide	Replies: 2,576 Views: 489,503
XDA.DEVDB [ROM] AICP - 11.0 - MM 6.0.1_r72 i9100 Official Weeklys	1 2 3 »			22nd June 2019 10:44 PM by zmyslo	Replies: 794 Views: 123,858
XDA.DEVDB [ROM][OFFICIAL][9.0][i9100] Pixel Experience GO [AOSP][r40][20190605]	1 2 3 »			22nd June 2019 01:10 AM by lanzdave	Replies: 108 Views: 24,293
XDA.DEVDB [9][UNOFFICIAL][20190609] CarbonROM cr-7.0 [i9100]				9th June 2019 06:41 PM by linsudan	Replies: 3 Views: 494
[MOD][GUIDE][NOOB-FRIENDLY]Increase system partition size	1 2 3 »			9th June 2019 04:44 PM by Shamim0242	Replies: 472 Views: 347,296
[ROM][i9100][UNOFFICIAL][8.1.0] LineageOS 15.1 [WIP][BETA]	1 2 3 »			9th June 2019 01:18 PM by Fraxel	Replies: 862 Views: 258,297
Poll: [ROM][4.1.2][DualBoot]Precious Serie V3[“Ok Google” activated][S-VOICE is back!]	1 2 3 »			7th June 2019 11:47 AM by Pauliulia	Replies: 125 Views: 27,077
XDA.DEVDB [ROM][EOL][8.1.0][i9100] Pixel Experience ASB[AOSP][r65][2019/06/04]	1 2 3 »			5th June 2019 09:08 PM by linsudan	Replies: 55 Views: 13,191
XDA.DEVDB [ROM][UNOFFICIAL][8.1.0][i9100] RESURRECTION REMIX V6.2.1[r52][FINAL][2018/12/10]	1 2 3 »			31st May 2019 07:46 AM by Andrey Swift	Replies: 51 Views: 16,127

LineageOS

The LineageOS is a lot of devices Android Custom ROM.

The recently devices supported **Motorola and Google devices?**

Add supported Xiaomi devices, But supported devices are the much less than the ago. **The old drivers are dead?**

LineageOS Wiki
DEVICES
CONTRIBUTE
DEVELOPERS
[WEBSITE](#)
🔍 Search

Devices

Rows with a lower opacity are no longer officially supported and the pages exist for reference only.
You can hide them by unchecking the following checkbox:

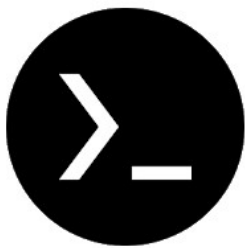
Show discontinued devices

Select a vendor to jump to:

ARK	Huawei	Nvidia	Xiaomi
Asus	LeEco	OnePlus	YU
BQ	Lenovo	OPPO	ZTE
Essential	LG	Samsung	ZUK
Fairphone	Motorola	Sony	
Google	Nextbit	Wileyfox	
HTC	Nubia	Wingtech	

The generation of Android Chroot Linux applications has changed

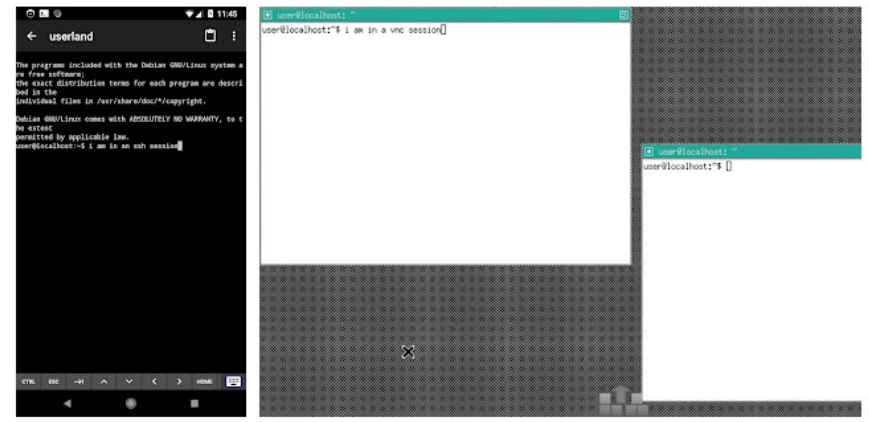
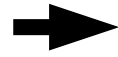
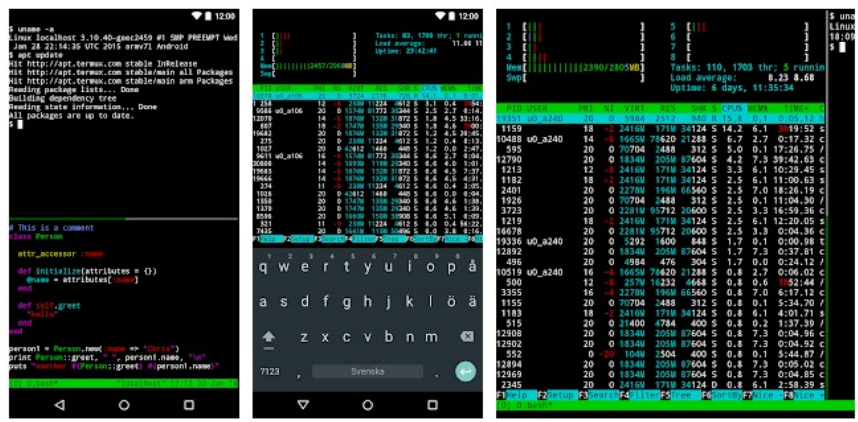
- After **Android 8.0** can't operate the **proot** environments. (The proot is non root chroot linux userspaces.)
- Before Android 7.1.2 can operate Debian noroot and termux. But After Android 8.0 are non supported?
- After **Android 8.0** can use **UseLAnd** applications.



Termux
 Fredrik Fornwall ツール
 ★★★★★ 29,067
 ⓘ このアプリはお使いの一部のデバイスに対応しています。
 インストール済み



UserLAnd
 UserLAnd Technologies, LLC ツール
 ★★★★★ 1,278
 ⓘ このアプリはお使いの一部のデバイスに対応しています。
 インストール済み



The thirds SmartPhone OS

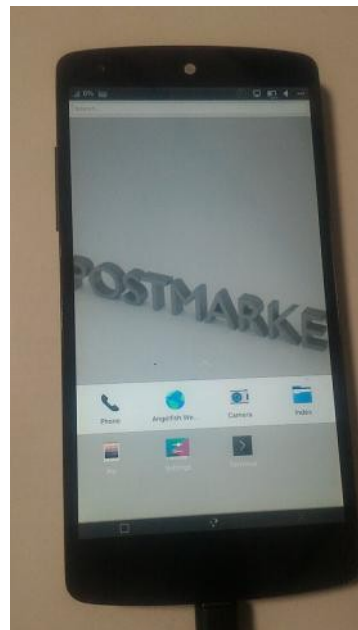
- The Android OS are the much more heavy environments and have not supported now. The Old devices have not been using now.
- The users would like to use the thirds SmartPhone OS.
- Let's Install Linux and *BSD in Smartphone and Tablets.



Sailfish X
on Xperia X



UBPorts on Nexus5
Nexus7 2013



postmarketOS on
Nexus5, Nexus7 2012



NetBSD、OpenBSD、FreeBSD
Some Linux on Windows Tablet

Hack inexpensive Nexus5 US\$30

- Nexus5 is operated some Linux distributions.
- SailfishOS, UBPorts, PostmarketOS and the others can play Nexus5.
- Linux Mainline Kernel has been supported Nexus5, like postmarketOS.



※画像はイメージです

3,980円 (税込)

1

カートに入れる



【白ロム】 【中古スマホ】 【中古携帯】 【良い】 【送料無料】

白ロム 中古 Nexus 5 LG-D821 16GB ブラック 本体のみ [Cランク]
IMEI:359250050574639

中古 - 良い

商品番号 359250050574639



























価格3,500円 (税込) ←

Ⓟ 262ポイント (7.5倍) 内訳を見る ⓘ

3,238円
(US \$ 30)

Mainline Kernel Supported Nexus5 now

- A few Android devices supported Mainlinekernel.
- postmarketOS developer's making kernel patches?

Age	Commit message (Expand)	Author
2019-05-14	backlight: lm3630a: Add firmware node support	 Brian Masney
2019-04-18	arm64: dts: qcom: pmi8998: add gpio-ranges	 Brian Masney
2019-04-18	arm64: dts: qcom: pmi8994: add gpio-ranges	 Brian Masney
2019-04-18	arm64: dts: qcom: pm8998: add gpio-ranges	 Brian Masney
2019-04-18	arm64: dts: qcom: pm8005: add gpio-ranges	 Brian Masney
2019-04-17	drm/panel: simple: add lg,acx467akm-7 panel	 Jonathan Marek
2019-04-17	dt-bindings: drm/panel: simple: add lg,acx467akm-7 panel	 Brian Masney
2019-04-09	ARM: dts: qcom: pma8084: add gpio-ranges	 Brian Masney
2019-04-09	ARM: dts: qcom: msm8660: add gpio-ranges	 Brian Masney
2019-04-09	ARM: dts: qcom: mdm9615: add gpio-ranges	 Brian Masney
2019-04-09	ARM: dts: qcom: apq8064: add gpio-ranges	 Brian Masney
2019-04-09	ARM: qcom_defconfig: add options for LG Nexus 5 phone	 Brian Masney
2019-02-15	Merge tag 'qcom-dts-for-5.1' of git://git.kernel.org/pub/scm/linux/kernel/git...	 Arnd Bergmann
2019-02-06	Input: add new vibrator driver for various MSM SOCs	 Brian Masney
2019-01-24	spmi: pmic-arb: revert "disassociate old virq if hwirq mapping already exists"	 Brian Masney
2019-01-24	arm64: dts: qcom: pmi8998: add interrupt controller properties	 Brian Masney
2019-01-24	arm64: dts: qcom: pmi8994: add interrupt controller properties	 Brian Masney
2019-01-24	arm64: dts: qcom: pm8998: add interrupt controller properties	 Brian Masney
2019-01-24	arm64: dts: qcom: pm8005: add interrupt controller properties	 Brian Masney
2019-01-24	ARM: dts: qcom: pma8084: add interrupt controller properties	 Brian Masney
2019-01-24	ARM: dts: qcom: pm8941: add interrupt controller properties	 Brian Masney
2019-01-24	qcom: spmi-gpio: add support for hierarchical IRQ chip	 Brian Masney
2019-01-24	spmi: pmic-arb: disassociate old virq if hwirq mapping already exists	 Brian Masney
2019-01-24	spmi: pmic-arb: convert to v2 irq interfaces to support hierarchical IRQ chips	 Brian Masney
2019-01-22	ARM: dts: qcom: msm8974-hammerhead: add USB OTG support	 Brian Masney
2019-01-22	ARM: dts: qcom: msm8974-hammerhead: add WiFi support	 Jonathan Marek

Hacking Sailfish X

- Sailfish OS 3.0.1 supported Xperia X, XA2, GeminiPDA.
- The kernel is 3.10.84 based Android.
- Supported Android app like blackberry.
- Supported EU version Xperia only.



	Sailfish X Free	Sailfish X Beta: 29,90€	Sailfish X: 49,90€
Sailfish OS to flash to your Xperia device	✓	✓	✓
Clear instructions and support for downloading, installation & use	✓	✓	✓
Android 8.1 apps support for Xperia XA2 range devices	-	free beta	-
Android 4.4 apps support for Xperia X only	-	-	✓
Predictive text input	-	✓	✓
MS exchange support	-	✓	✓
Software updates as long as device is supported	-	✓	✓
Customer support as long as device is supported	-	✓	✓

Unofficial Sailfish OS Ports

- Unofficial supported in Community Build.
- **Nexus5**, Xperia X Compact, ONDA V820W V3 (Intel), Sony Z3 Compact Tablet, Motorola Droid 4...

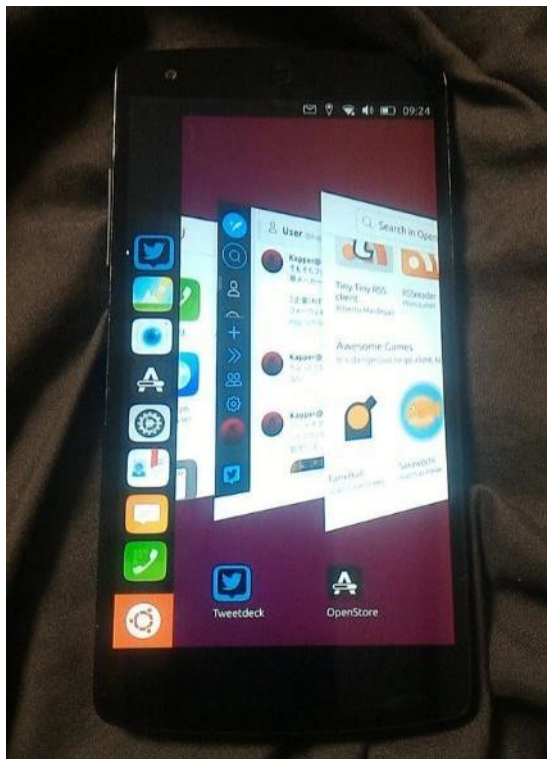
The screenshot shows the maemo.org forum interface. The top navigation bar includes links for INTRO, DOWNLOADS, COMMUNITY, DEVELOPMENT, NEWS, and TALK. The current page is titled "maemo.org > Talk > OS / Platform > SailfishOS". The forum displays a list of threads with their titles, authors, reply counts, and view counts. The threads are sorted by title.

Thread Title	Author	Replies	Views
Sticky: Sailfish OS Roadmap (1 2 3 ... Last Page)	by: nodevel	55	87,537
Sticky: Extra softwares in Sailfish using CLI, repositories, etc (1 2 3 ... Last Page) ★★★★★	by: rcolistete	102	173,483
Sticky: Sailfish(Jolla): Ideas/Qns & Concerns/Criticisms (1 2 3 ... Last Page)	by: jalyst	879	358,201
Sailfish OS on Sony Xperia X Compact (community build) (1 2 3 ... Last Page)	by: Manatus	146	35,800
Sailfish OS (officially) on Sony Xperia devices (1 2 3 ... Last Page) ★★★★★	by: HtheB	2,899	707,157
Sailfish OS flashing files (1 2 3)	by: sailfishlover	28	10,074
Xperia XA2 plus charging problem	by: n950	7	730

What's UBPorts?

- UBPorts is Smartphone and Tablet OS based Ubuntu16.04.
- UBPorts have installer easy to use it, but recently not supported multiron.
- Supported Android and Xorg applications?

UBports on Nexus5

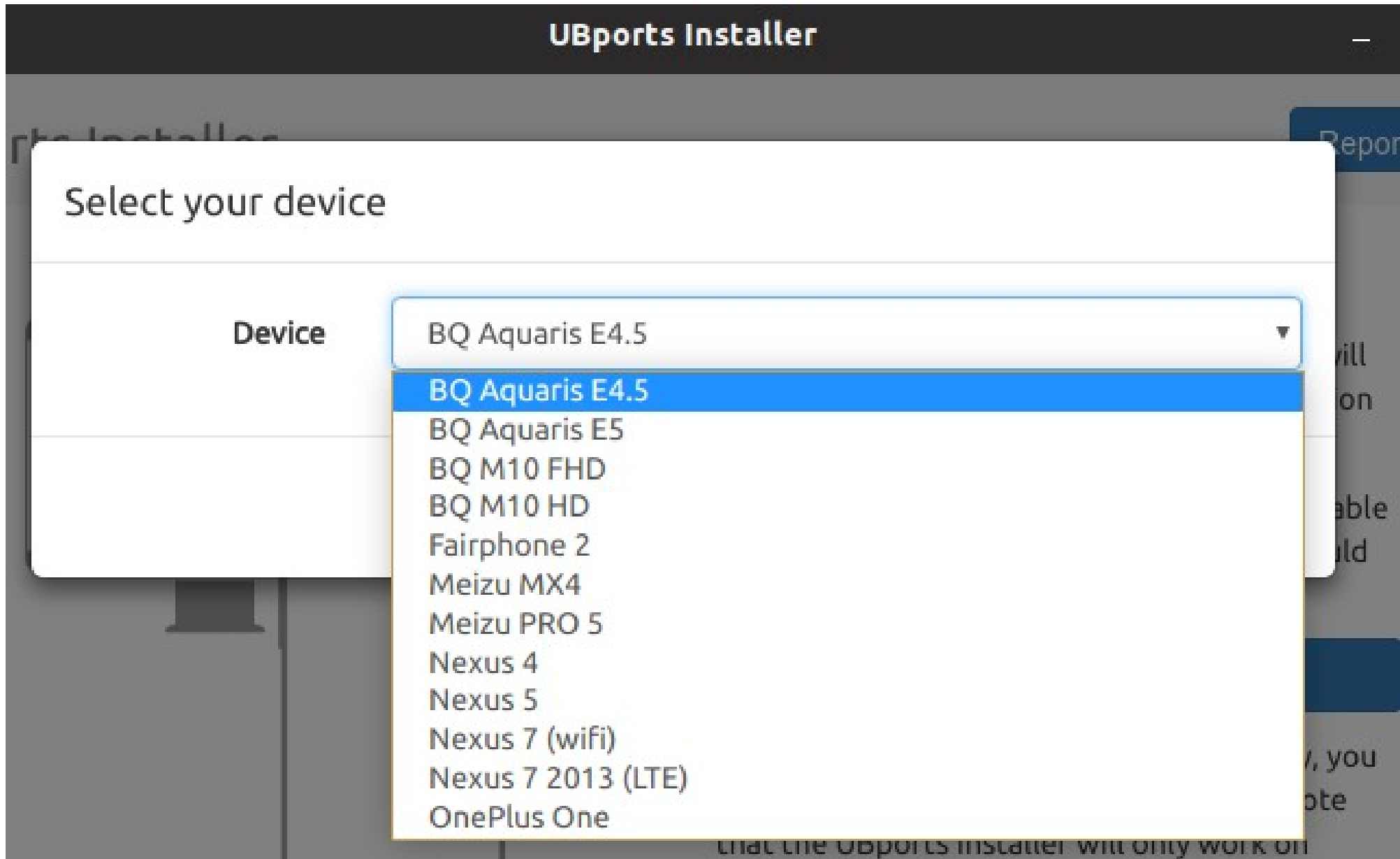


Ubuntu Touch on Nexus7 2013



UBPorts supported Devices

- Easy to get Nexus4,5,7 2013 devices.
Let's install UBPorts in it.



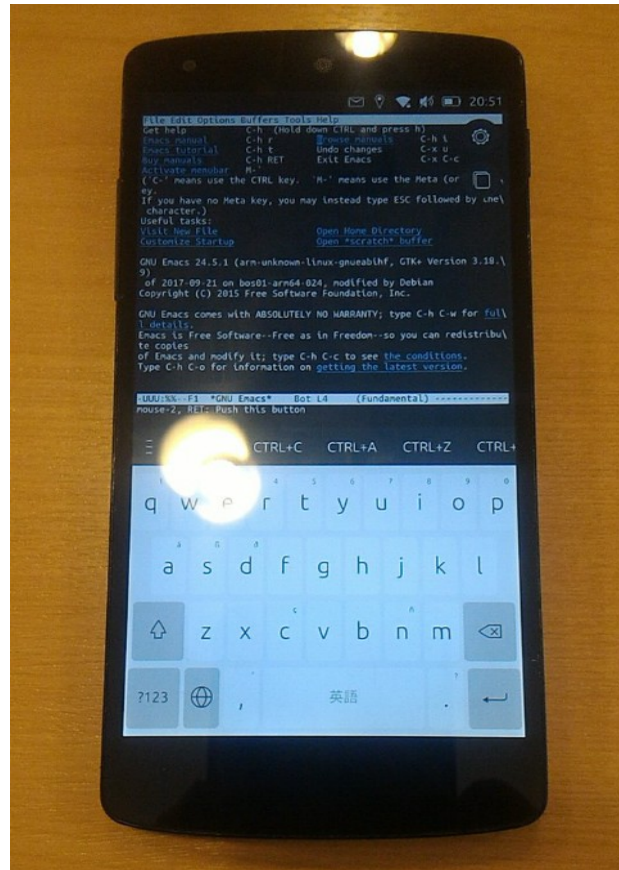
UBPorts can use some applications

- UBPorts based Ubuntu can use apt, terminal app (like emacs..), Xorg app and Anbox (Android)
- But Android applications are unstable now...

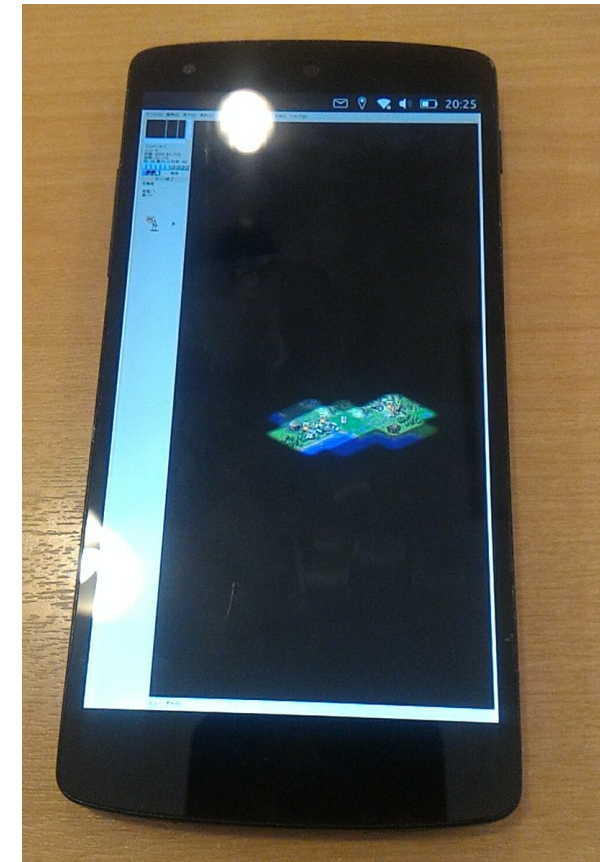
Anbox



emacs(Terminal)

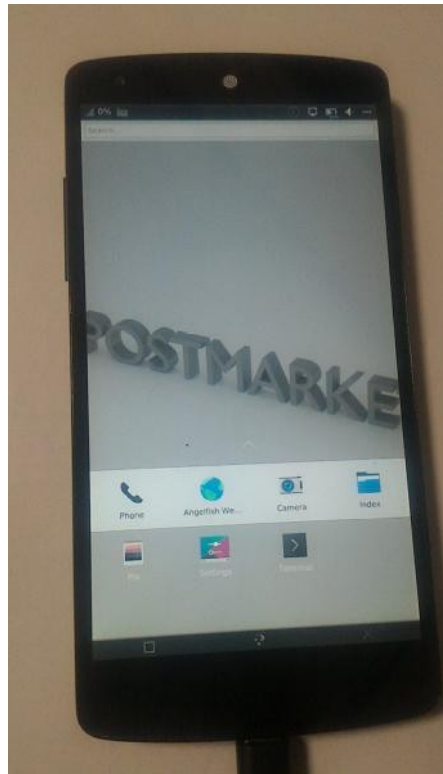



freeciv-gtk



What's postmarketOS?

- Smartphone and Tablet OS reuse Linux Distributions.
- Alpine Linux operate Android over 130 devices.
- WM supported PlasmaMobile, XFCE4 and the others.





postmarketOS

A real Linux distribution for phones and other mobile devices.

Alpha version. Calls don't work, etc. Only suitable for hackers.

[blog](#) [faq](#) [wiki](#) [src](#)

[matrix/irc](#) [mastodon](#)

[twitter](#) [reddit](#)

ABOUT

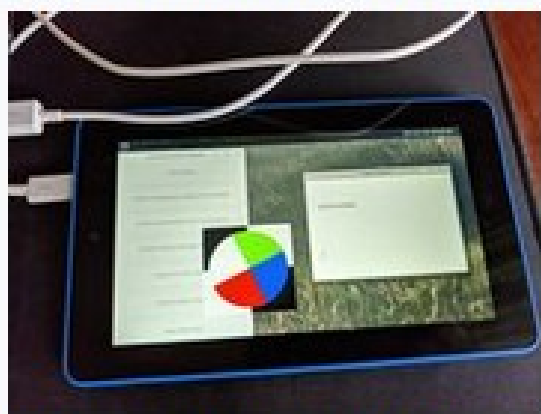
We are sick of not receiving updates shortly after buying new phones. Sick of the walled gardens deeply integrated into Android and iOS. That's why we are developing a sustainable, privacy and security focused free software mobile OS that is modeled after traditional Linux distributions. With privilege separation in mind. Let's keep our devices useful and safe until they physically break!

[Sounds good, tell me more about the vision >](#)

[Don't forget to worry about proprietary firmware >](#)

Add the devices in postmarketOS

Amazon Fire 7 (2015)



Amazon Fire 7 running Weston and it's demo programs

CHUWI Hi10 Plus



Chuwi Hi10 Plus running Weston

Planet Computers Gemini PDA



Gemini PDA running postmarketOS with Hildon

(2013)

Amazon Kindle Fire HDX



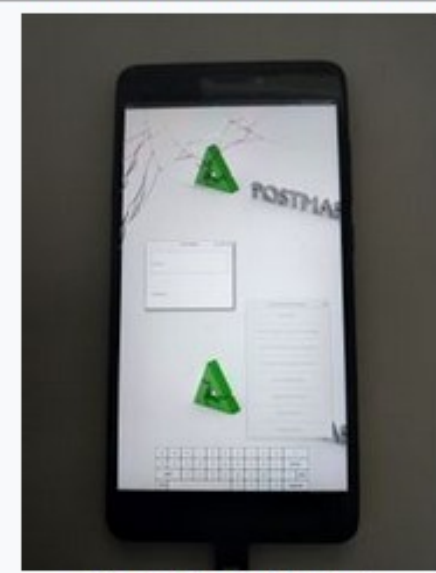
7" (thor) edition

Nokia N9



postmarketOS loading screen with TTY on top

Xiaomi Redmi Note 4



Xiaomi Redmi Note 4

Nokia Lumia 720



CHANGE_ME

postmarketOS Based systems

- PostmarketOS is based Alpine Linux.
It uses Android kernel or Mainline kernel.
- 1. Overwrite flash img,
 2. SD cards,
 3. ZIP files on TWRP, CWM
 4. The other Android recovery system.
- Install script pmbootstrap.py in Linux distributions.
- User interfaces (WM)
 - 1.none
 - 2.hildon
 - 3.luna (Wayland)
 - 4.plasma-mobile (Wayland)
 - 5.Weston (Wayland)
 - 6.XFCE4 (xorg)
 - 7.MATE (xorg)

What's Maemo Leste?

- Maemo Leste is developing old Nokia Maemo, based debian.
- Supported Nokia N900, but other (currently unsupported) targets exist (Motorola Droid 4, Generic AMD64, Allwinner A20 LIME2, Allwinner A33 Tablet)



What's Plasma Mobile?

- Plasma Mobile is based ARM-Ubuntu, Debian and x86 Ubuntu.
- Plasma Mobile is supported postmarketOS.
- Plasma Mobile is porting Nexus5 and x86-64.



Plasma Mobile **key** features.



Libre Technologies

- Plasma Mobile (a plasma workspace)
- KWin/Wayland
- Voicell/Ofono
- Telepathy

Qt-based Applications

- KDE Apps
- Plasma Widgets
- Ubuntu Touch apps
- possibly Sailfish apps
- possibly Nemo apps

FirefoxOS Now!

- KaiOS ⇒ Not opensource ROMs...
- Servo on Gonk ⇒ Browser shell
- Webian Shell ⇒ Browser shell

Servonk

This is an experimental project, aiming at providing a web based environment for phones and other devices. The main goals are to:

- Build an alternative to current dominant mobile OSes and browsers.
- Encourage contributions to [Servo](#) outside of the mandate of its corporate backers.
- Scratch an itch and have fun.

It currently runs on Gonk based devices and on desktop platforms (tested on Linux only so far, let me know if you get it to run on Windows or Mac). Another potential target will be the [Librem 5 from Purism](#). For more information on target devices and platforms see [this page](#).

It is in very early stages and not really usable yet. There is an incomplete [todo list](#) if you want to help!

You can check the [build tutorial](#) for a detailed explanation of how to build and run B2G/Servonk.

Dependencies

Since we depend on Servo, first check that you have everything set up [as explained](#).

You need to do a [b2g](#) build for your device (eng or userdebug to get root access), as this is not properly setup with the Android build system yet. It is only necessary to build gonk, not gecko or gaia. A simple way to remove these from the build after running `./config.sh` is to edit `b2g.mk` in gonk-misc repository and comment out the gecko and gaia lines, as shown in this git diff: <https://pastebin.com/sdQG3TKi>

Also:

- `sudo apt install llvm-dev libclang-dev and clang (Ubuntu 18.04).`

webianShell

A graphical shell for the web

Webian Shell is a browser based operating system UI dedicated to using the web. The system back button is a browser back button, the window manager is a tab manager and any web page can be used as the home screen. It stores apps, bookmarks and browsing history which can be synced between devices using [Webian Home](#).

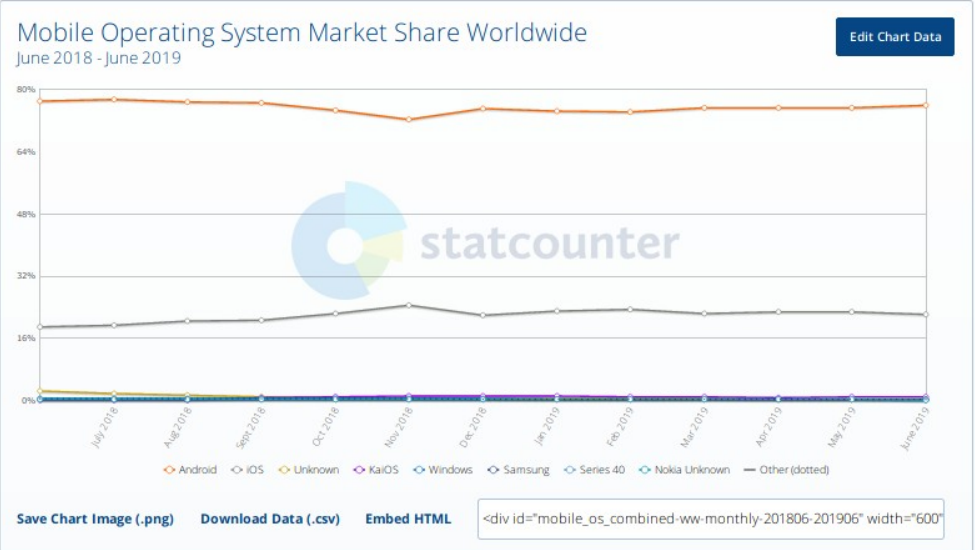
There are two versions of Webian Shell, one for desktop computers and one for touchscreens.

FirefoxOS Now! GerdaOS

- GerdaOS is KaiOS based Custom ROM in Nokia 8110.
- KaiOS is the thirds positions of mobile OS market Share now. FirefoxOS is not dead.



GerdaOS: a custom ROM to liberate the heart of Kai



Welcome to the home page of world's first custom ROM for Nokia 8110 4G and (in the future) other KaiOS based phones that aims for users' privacy, security and freedom to control everything about their own devices.

Our mission is to liberate Kai's heart, as in 'The Snow Queen' Hans Christian Andersen. Hence the name.

[See it in action!](#)

Key features

Say no to ads and tracking. By default.

The very decision to create GerdaOS was initially made after finding a devastating security bug in the KaiOS version shipped with Nokia 8110 4G (v13 and earlier HMD firmware versions).

GerdaOS doesn't have any pre-installed apps that are proven to track you, including but not limited to KaiStore, FOTA updater, Gameloft games and all Google apps. Also, it has analytics disabled and "Do Not Track" header enabled by default, and the default browser search engine is set to DuckDuckGo.

Moreover, it has the most comprehensive host-based advertisement blocking list to this day. So your surfing experience won't be distracted by this plague of modern web.

Install what you want, not they.

In contrast to having a poor and slowly filled app store, GerdaOS comes with a file manager and a package installer. Evolved since the first days of 8110 jailbreaking, this installer, GerdaPkg, allows you to install any KaiOS-compatible application from a local ZIP package you choose in the file manager (just like .apk files in Android). All alternative store apps (like KaiUS and JBStore) are also compatible with GerdaOS.

Overcome the limits and multitask

Tizen Now?

- Tizen closed SmartPhone OS. Smartwatch and Web TV. Tizen 5.5M1 released in may 2019.
- Testing RaspberryPi3 and ODROID-XU3, sourcecode only

The screenshot shows the Tizen website's 'Release' page. The navigation bar includes 'TIZEN Source', 'Documentation', 'Release', and 'Compliance'. A search icon is visible in the top right. The breadcrumb trail reads 'Tizen Source > Release'. A sidebar on the left lists various Tizen versions, with 'Tizen 5.5 M1' highlighted. The main content area features the title 'Tizen 5.5 M1', the publication date 'PUBLISHED 31 MAY 2019', and a description: 'The Tizen 5.5 Public M1 release provides developers with the Tizen kernel, device drivers, middleware subsystems, and Native/Web/TizenFX APIs.' Below this, the 'Release Details' section includes links for 'Getting source code', 'Getting binaries and images' (with sub-links for base and unified profiles), and 'How to flash to a device'. The 'Known Issues' section states that known issues are documented in the release notes. The 'Release Notes' section provides a link to the 'Tizen 5.5 Public M1 Release Notes'. A 'PRINT' button is located in the bottom right corner.

TIZEN Source | Documentation | **Release** | Compliance

Tizen Source > Release

- **Tizen 5.5 M1**
- Tizen 5.0 M2
- Tizen 4.0 M3
- Tizen 5.0 M1
- Tizen 4.0 M2
- Tizen 3.0 M3
- Tizen 4.0 M1
- Tizen 3.0 M2
- ▶ Tizen 3.0
- Tizen 3.0 Milestones
- Tizen RT 1.0 M1
- Tizen 2.4
- Tizen 2.3.1
- Tizen 2.3

Tizen 5.5 M1

PUBLISHED 31 MAY 2019

The Tizen 5.5 Public M1 release provides developers with the Tizen kernel, device drivers, middleware subsystems, and Native/Web/TizenFX APIs.

Release Details

- [Getting source code](#) (Tizen 5.5 M1 source codes are under **tizen** branch.)
- [Getting binaries and images](#)
 - Base: http://download.tizen.org/releases/milestone/tizen/base/tizen-base_20190503.1/
 - profile(unified): http://download.tizen.org/releases/milestone/tizen/unified/tizen-unified_20190523.1/
- [How to flash to a device](#)

Known Issues

- Tizen Public 5.5 M1 known issues are documented within the release notes below.

Release Notes

- [Tizen 5.5 Public M1 Release Notes](#)

PRINT

Hacking the processors and Devices

Operations Linux in the some processors

CPU	Hack app	Bootloader	Root	SD boot	device	comment
Intel Atom,Core i	—	UEFI,BIOS	☉	☉	Win Tablet	NG Z2760
RK3066,RK2926 RK3088,RK3188, RK3268,RK3328	rkflashkit sdcard.7z Armbian	U-boot Linuxium	○	○	MK802~8	Tools Linux OK SD boot
AllwinnerA10~20 AllwinnerA31~	BROM BerryBoot Armbian	U-boot Barebox Coreboot	○	○	CubieBoard OrangePi NanoPi	Tools Debian OK SD boot
Amlogic	Armbian	U-boot	○	○	TV BOX	SD boot
MT8389 MT6577	Magic TWRP/CWM SPFlashTool	U-boot	○	○		MediaTek ROM images SD boot
Exynos	Samsung Odin	U-boot	○	?	Arndale Board	Samsung
Snapdragon	MiFlash	U-boot	○	?	Dragonboard	Qualcomm
K3V2 Hisilicon	fastboot	U-boot	○	?		Hisilicon Recovery tools
iMX6		U-boot	○	○		Freescale
ATM7029		U-boot	○	?		Nvidia
Tegra	Tegra-uboot- flasher,NVflash	U-boot	○	○	Dynabook AZ, Switch	Actions
OMAP4430	OMAPFlash	U-boot	○	?		Closed?

Allwinner Tablet again?

- In old inexpensive chinese Tablet using Allwinner CPU.
- Allwinner processor can boot Linux from SD card, from 2014. In Linux-sunxi, a lot of infomations still alive now.
- The old Allwinner Tablet can't install postmarketOS, So some Tablets are easy to buy it. Allwinner again?



A13 based android tablet running on debian

2,253 回視聴

👍 6 🗨️ 0 ➡️ 共有 📄 保存 ...



Navigation

Main page
Community portal
Recent changes
Random page
Help

Tools

What links here
Related changes
Special pages
Printable version
Permanent link

Page Discussion

Read

View source

View history

Search

Create account Log in

Go

Search

A33 Q7 V1.0

A Q8 style cheap tablet, but with an A33 SoC.

Contents [hide]

- 1 Identification
- 2 Sunxi support
 - 2.1 Current status
 - 2.2 Images
 - 2.3 Manual build
 - 2.4 Mainline U-Boot
 - 2.5 Mainline kernel
- 3 Tips, Tricks, Caveats
 - 3.1 FEL mode
 - 3.2 Retrieving script.bin
- 4 Adding a serial port (**voids warranty**)
 - 4.1 Device disassembly
- 5 Pictures
- 6 See also

Identification

On the back of the device, the following is printed:

```
The PCB has the following written on it:
GPT
A33_Q7_V1.0
20016-09-19
1.91.001.0181
```

In android, under Settings->About Tablet, you will find:

- Model Number: Q88H

A33 Q7 V1.0



Manufacturer	Unidentified manufacturer "ET"
Dimensions	182mm x 121mm x 7mm
Release Date	19/09/2016
Website	Missing product page.
Specifications	
SoC	A33 @ ?.?Ghz
DRAM	512Mb DDR3@ 480MHz (2x SPHB 256X8DDR3)
NAND	16GB
Power	DC 5V @ 3A, 3000mAh 3.7V Li-Ion battery
Features	
LCD	1280x768 (7" 16:9) MPI DSI Interface

PicUntu and Rockchip in 2014

- Rockchip Android StickPC install Ubuntu in 2014
- UG802、MK802、MK803IV... in RK3066,RK3166

Rikomagic mk802



Manufacturer [Rikomagic](#)

Dimensions 88.5mm x 35mm x 13.4mm

Release Date May 2012

Website [German product page](#)

Specifications

SoC	A10 @ 1Ghz
DRAM	512MiB DDR3 @ 480MHz
NAND	4GB
Power	DC 5V @ 2A



宅配便発送 送料込 【自宅のTVでYoutubeが見れる!】 【**送料無料**】 [RKM] Rikomagic MK802 IV miniPC クアッドコア Mini PC RK3188 Cortex-A9プロセッサ + 8GBフラッシュメモリ + Bluetooth + Android 4.2 超小型端末 スティックPC stickPC (1039-00)

商品番号 1039-00_MK802IV

価格3,980円 (税込)

📍 292ポイント(7.5倍) 内訳を見る

送料無料

岐阜県への最安送料

宅配便 翌日配達
12:00までの注文で最短翌日お届け
[配送方法と送料・あす楽利用条件を見る](#)

※最安送料での配送をご希望の場合、注文確認画面にて配送方法の変更が必要な場合があります。

※離島・一部地域は追加送料がかかる場合があります。

あす楽 翌日配達対応 [利用可能な条件を見る](#)

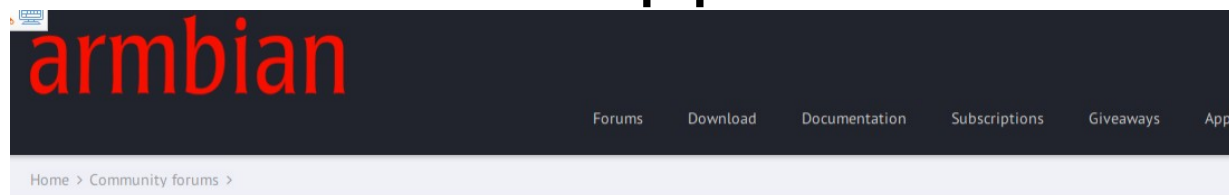
2~5日くらいにお届け (店舗休業日を除く)
残りあと50個です

個数

1

Armbian in Amlogic TVBox, StickPC ³⁷

- Armbian can boot Linux from SD card, Single board PC, TV Box and StickPC.
- Dualboot Android or Linux.
- Armbian is supported a lot of ARM chips.



TV boxes ⁵

All kind of ARM based TV boxes

< PREV 1 2 3 4 5 6 NEXT > Page 2 of 6

Compile FFmpeg aml for S912 (Mecool K3 Pro)

By martos, August 18, 2018

Armbian 5.78 s905 ubuntu bionic 5.1.0 networking

By Lepomis, April 11

Keep getting disk failed error. MXQ PRO S905W.

By thatchunkylad1989, April 11

Tanix TX3 mini ubuntu mate

By Steven Chia, June 26, 2018

TicTid X9T Pro Armbian Install

By Petee, April 4

Supported chips

- Allwinner A10, A20, A31, H2+, H3, H5, A64
- Amlogic S805 and S905 (Odroid boards), S802/S812, S805, S905, S905X and S912 (fork by [@balbes150](#))
- Actionsemi S500
- Freescale / NXP iMx6
- Marvell Armada A380
- Rockchip RK3288
- Samsung Exynos 5422

Hacking ARM Tablets?

Debian on Kobo(2012~)



Debian on Kindle(2013~)

Installing Debian on your Kindle

Update: I am no longer working on this project. I ended up breaking my Kindle because I'm an idiot. I am still accepting pull requests, but I am unable to test them, so please make sure that your code is stable. Thanks, lovelies!

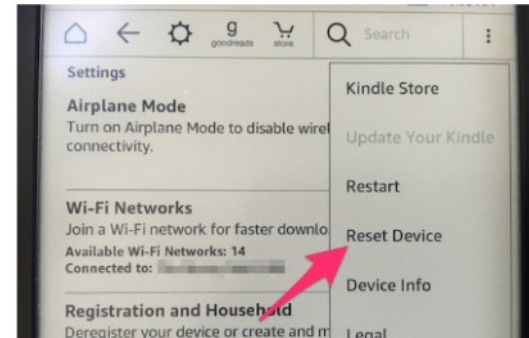
1. Jailbreak your Kindle.

Jailbreaking your Kindle allows non-Amazon applications to run on your Kindle. In order to Jailbreak your device you need a Paperwhite 2 or 3, Kindle Touch 2 or 3, Kindle Voyage or Kindle Oasis. I'm using a Kindle Touch 3.

Follow the steps below to jailbreak your device.

○ Reset your device:

To do this, go to settings and click the menu button (≡ or ⋮) in the top right-hand corner, it should look like this:



Ubuntu on TF100~TF300t(2012~) Tegra

Ubuntu on Nexus7(2012~)

ubuntu[®] wiki

tf300t

Ubuntu Touch

Install Get started here!

Get involved! Bugs Translate

FAQ Release Notes

Core apps Libertine Cross Compile

Devices Porting Guide Container Architecture

Build from source Deploying

Screencast Testing Specs

Get help ... and get in touch

General

Device Name	Asus Transformer Pad TF300T
Code Name	tf300t
Image Maintainers	kallewhoever-1 and f69m
Testers	wgpenney
Last update	System: 2013-03-23 The root filesystem is repackaged automatically and should be available within 2-3 hours of the official Ubuntu release.

Contents

1. General
2. State of affairs
3. Installation
 1. Unlocking instructions
 2. Install Prebuilt Files
4. Known issues
5. How to build
 1. What you will need
 2. Preparing Ubuntu
 3. Preparing the Code



NetBSD

- NetBSD supported a lot of devices, like PC, PDA, old Smartphone, Game console.
- Japanese and the other devices is supported NetBSD User Group.



NetBSD supported ARM v5te PDA and the others

- NetBSD supported Linux Zaurus and W-ZERO3 (WindowsCE) . ARM, MIPS, x86, VR, Super-SH... NetBSD OS liveimages can download it.
- If you have the old one, Let's install NetBSD.

NetBSD/hpcarm 6.1 W-ZERO3 ておくれLive Image

20130621版

[NetBSD 6.1 リリース](#) 記念 兼 [NetBSD/arm + pkgsrc-201301](#) で mikutter が落ちてた原因のデバッグしたよ 記念バージョン

screenshot



いつものやつつけ説明なので都度適当に更新します。
誤りその他の指摘はメール <tsutsui@ceres.dti.ne.jp> または

前書き

以前から [W-ZERO3用インストールイメージ](#) は作ってはじめてとしたアプリもある程度インストールした状態とはいっても、ARMではなかなかビルドできないアプ

必要なもの

- W-ZERO3 本体 (WS003SH/WS004SH/WS007SH/WS011SH)
- 2GB SD (正確には 1824MiB = 1,912,602,624バイト) を謳うSDは 1858MiB(1,948,254,208バイト) の本体の Windows Mobile のバージョンによる
 - WS003SH/WS004SH の場合は mini SD もし
 - WS007SH/WS011SH の場合は micro SD が必
- SDイメージを書き込むマシン

ダウンロード



トップ > カテゴリー > IT・Web 編集可能

2012年1月19日 ▼

NetBSD/zaurus お試し用 1GB SDイメージ

NetBSD/zaurus -current お試し用 1GB SDイメージ(C700用カーネル含む)のなんとなく作成記 兼 使い方もです。SL-C700/750/760/860/1000/3x00対応。のほず。

このへんのみとも参照
NetBSDでザウルス SL-C700 サポートするぞ
<http://togetter.com/li/242873>

[続きを読む](#)

ガジェット NetBSD Zaurus ✎

tsutsui @4369 0 7 B!3 f 3

Izumi Tsutsui @tsutsui
メンテカーネルだと zboot 動かないんですね

Izumi Tsutsui @tsutsui
C700 のデフォルトのLinuxだと /dev/mmcda

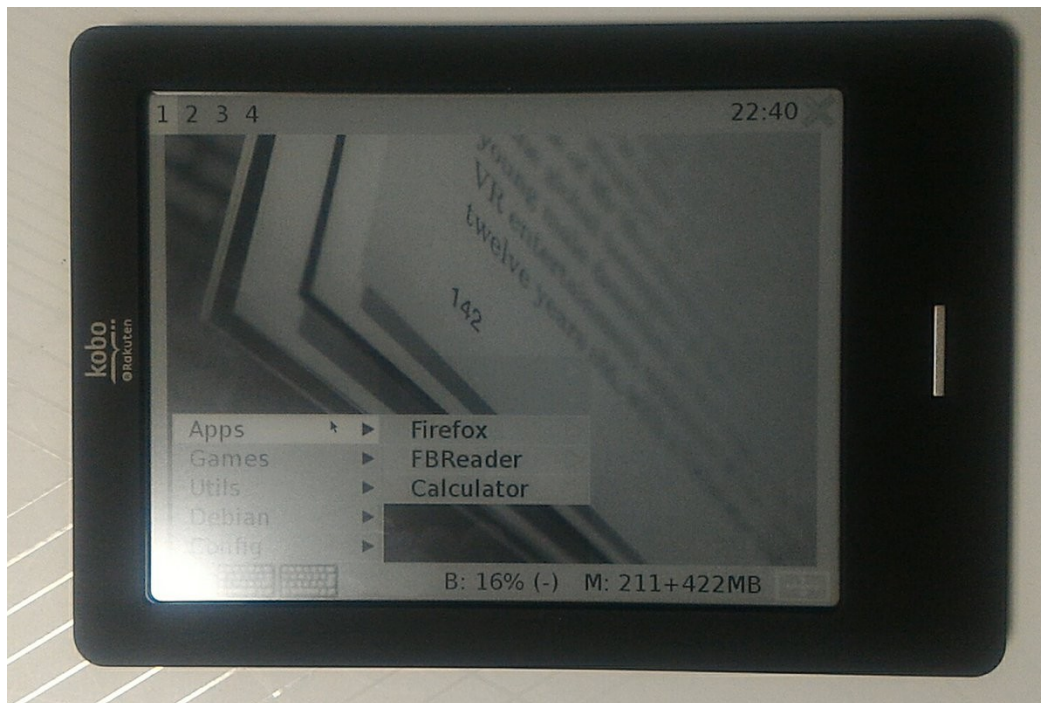
Izumi Tsutsui @tsutsui
「3分程度お待ちください...」
見飽きた(´・ω・`)

Izumi Tsutsui @tsutsui



Debian on KOBO E-Book Reader

- The old E-Book reader KOBO based Linux. Easy to install Linux(Debian), Change SD card.
- Debian can boot it Jessie, kernel is too old now. in ~2014.
- NetBSD can boot KOBO too.

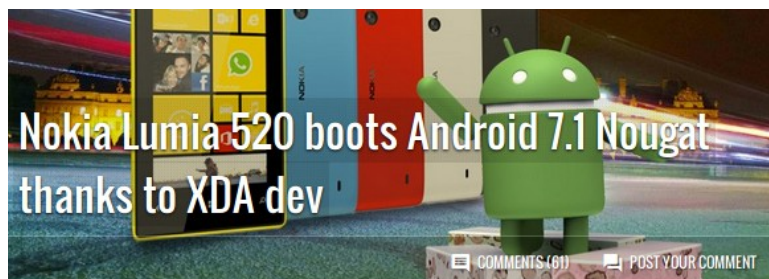


Debian
SD card



WindowsPhone Nokia Lumia520,720

- Nokia Lumia(Windows Phone) can boot Android custom ROM. They can unlock bootloader too.
- Also Lumia 950 XL can boot Windows10 ARM, reported it.(But WindowsRT is not reported it...)

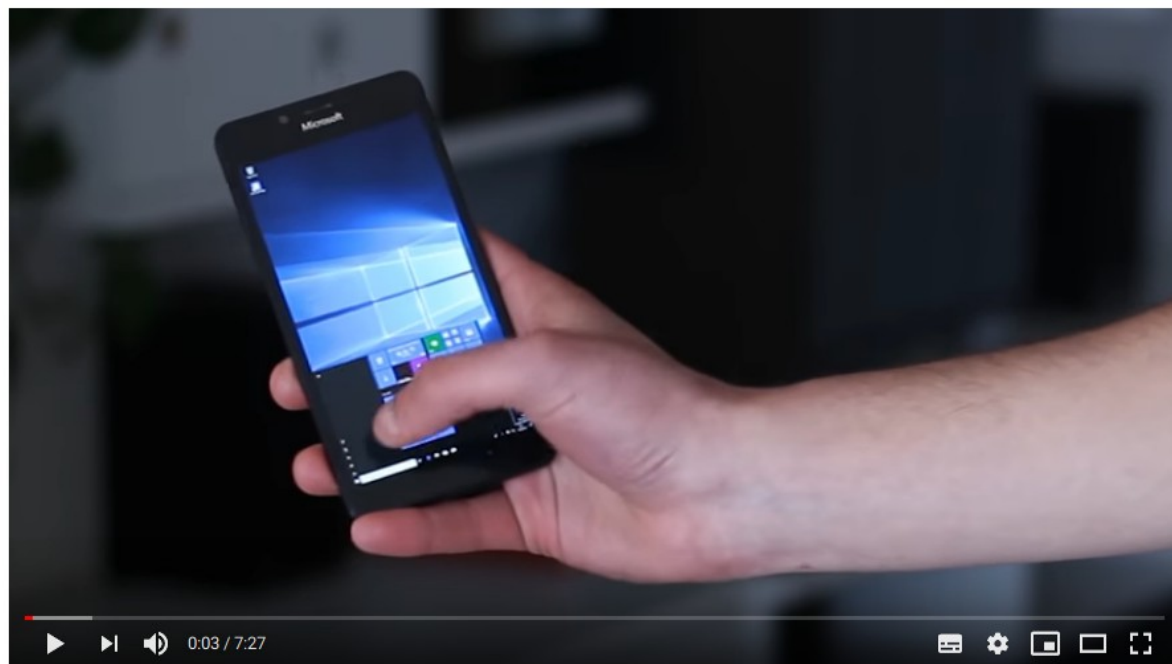
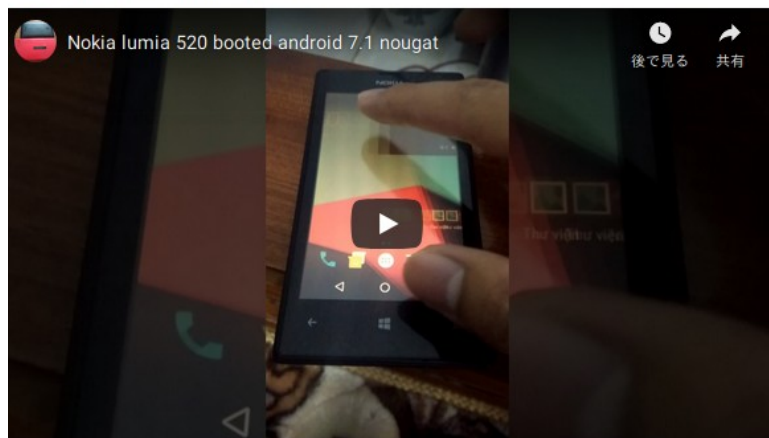


Peter 14 December 2016

Nokia Windows Phone Android

For the longest time the [Nokia Lumia 520](#) was the most popular Windows Phone handset out there, so it's very strange to see it running Android. And not just any Android either, the latest 7.1 Nougat!

XDA dev [thinx2](#) got CyanogenMod 14.1 to boot on the veteran smartphone and while it works, it's unstable and far from ready to be a daily driver. Still, it's massively impressive that it works at all - this is a phone with a dual-core 1GHz processor and 512MB of RAM. And it does split-screen multitasking as well!




Tutorial: Install Windows 10 ARM on Lumia 950 (XL) English Guide

26,613 回視聴

👍 474 🗨️ 11 ➡️ 共有 📌 保存 ...

The old iPhone and iPod Touch

- Out of supported iPhone1~4, iPod Touch4G and first iPad can install Android and Liunx.
- OpeniBoot and iDroid can install it from 2010 to 2014.
- Unfortunately, it seems that it was not operate completely?


The iPhone Wiki
Log in

Page
Discussion
Read
View source
View history

iDroid

iDroid is a project with goals of porting Linux and Android to [iPhone](#), [iPod touch](#) and [iPad](#) and use different OSes as alternatives to standard [iOS](#).

iDroid is not actually a hack/exploit neither an unlock, but it is based on [Bootrom](#) exploits which allowing the running of unsigned code at low level.

Contents [hide]

- 1 [OpeniBoot](#)
- 2 [Linux](#)
- 3 [Android](#)
- 4 [See Also](#)

OpeniBoot

The goals of OpeniBoot are:

- to run low-level code
- to have low and critical drivers ([NAND](#) and [NOR](#) driver, [NVRAM](#)...).
- to have a debugger and development environment (chainloading, upgrading itself and USB mass storage).

Linux


A Linux Bootloader, a working Linux kernel (cross-compiler), porting drivers, run Wi-Fi and command line through SSH.

Android

On 21 April 2010, an Android distribution based on iPhoneLinux called iDroid was released.

- [Announcement on the linuxoniphone blog: iDroid initial release](#).

See Also



OpeniBoot console

Device running the OpeniBoot console.

Plasma Mobile RaspberryPi Phone? ⁴⁴

January 1, 2019

**TinkPhone: KDE
Plasma Mobile on a
Raspberry Pi**



Recently Intel devices,
and the newer my topics

Ubuntu19.04 on GPD MicroPC

- There types are 「Gemini Lake」 like Notebook.
No GPU driver and blackscreen in Ubuntu19.04.
- Install Mainlinekernel 5.2.0RC6 and Ubuntu19.04
can play GPU driver and rotation screens.
- Mainlinekernel5.2.0RC5 supported GPU driver.

Ubuntu19.04
No GPU driver



Ubuntu19.04
+MainlineKernel 5.2.0RC6



Ubuntu19.04 on GPD Pocket1 and 2⁴⁷

- GPD-Pocket1 is atom devices had some bugs.
- GPD-Pocket2 are 「CoreM」 like Notebook.
No Atom bugs on Linux, very stable and drivers.
- Testing Ubuntu, openSUSE, Fedora, GhostBSD.
- Supported some driver in Linux now.

GhostBSD(FreeBSD)



Ubuntu18.10



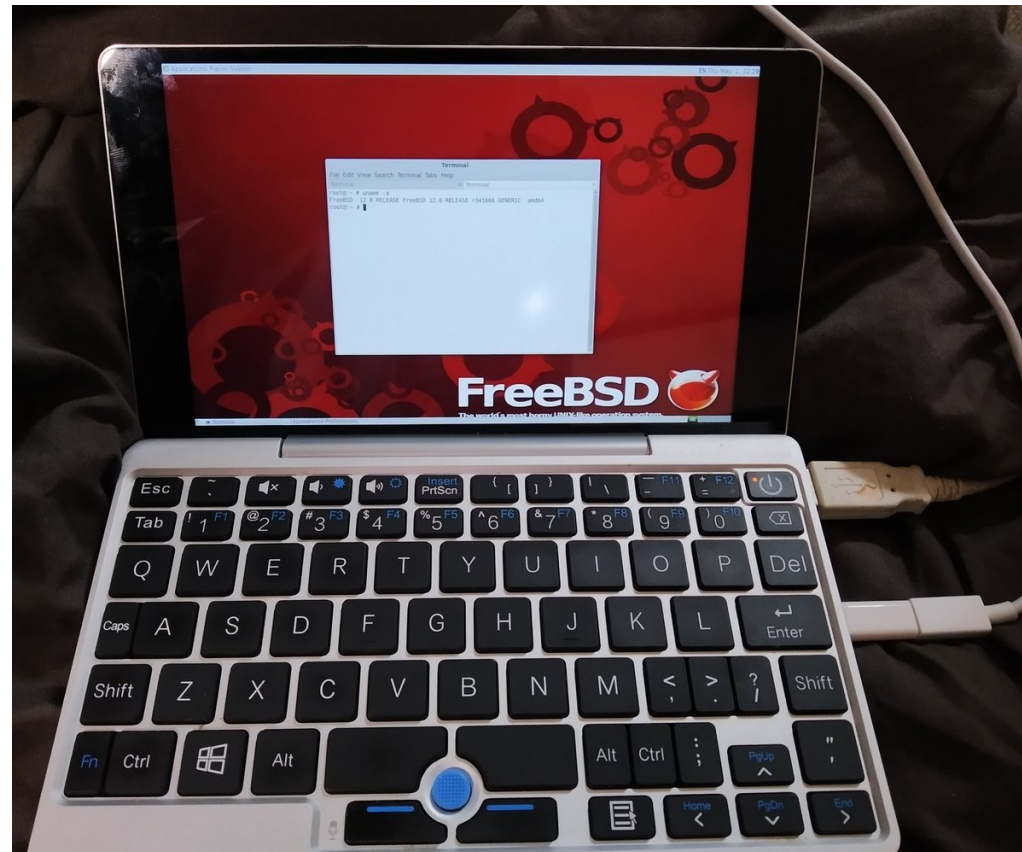
NetBSD8.0



FreeBSD on GPD Pocket1 and 2

- Boot FreeBSD in GPD-Pocket.
- Generic FB driver can view it screen in FreeBSD.

FreeBSD



NetBSD 8.0 on ¥5,000 Window Tablet TW708

Install NetBSD8.0

Bootloader NetBSD8.0
「userconf disable
i915drmkms」

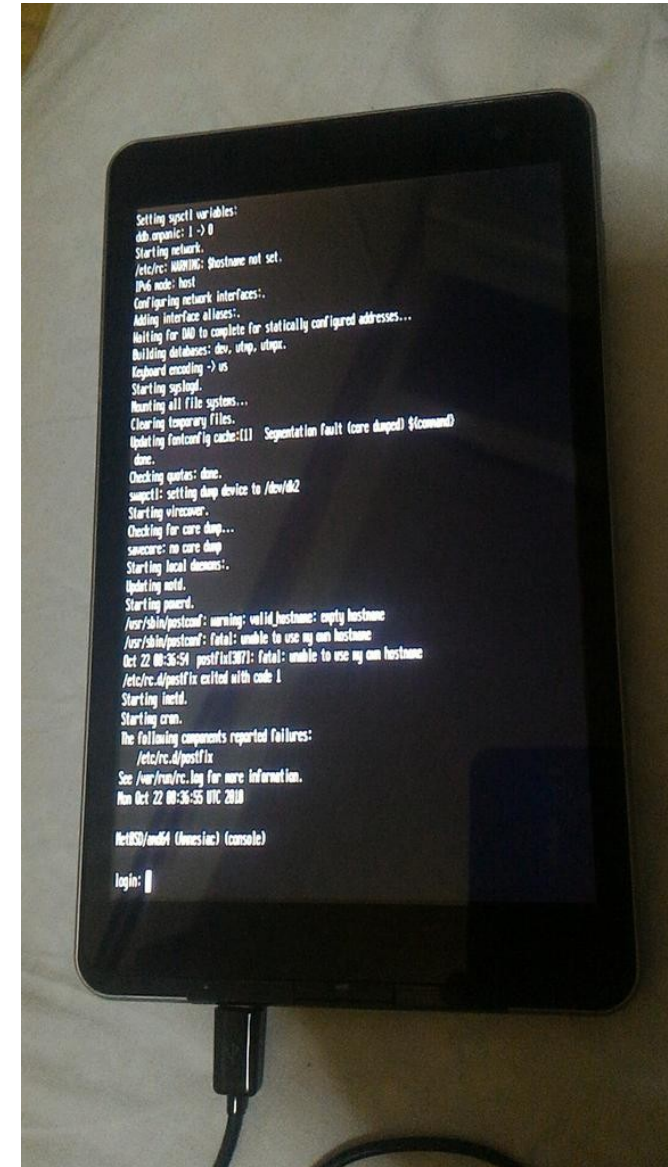
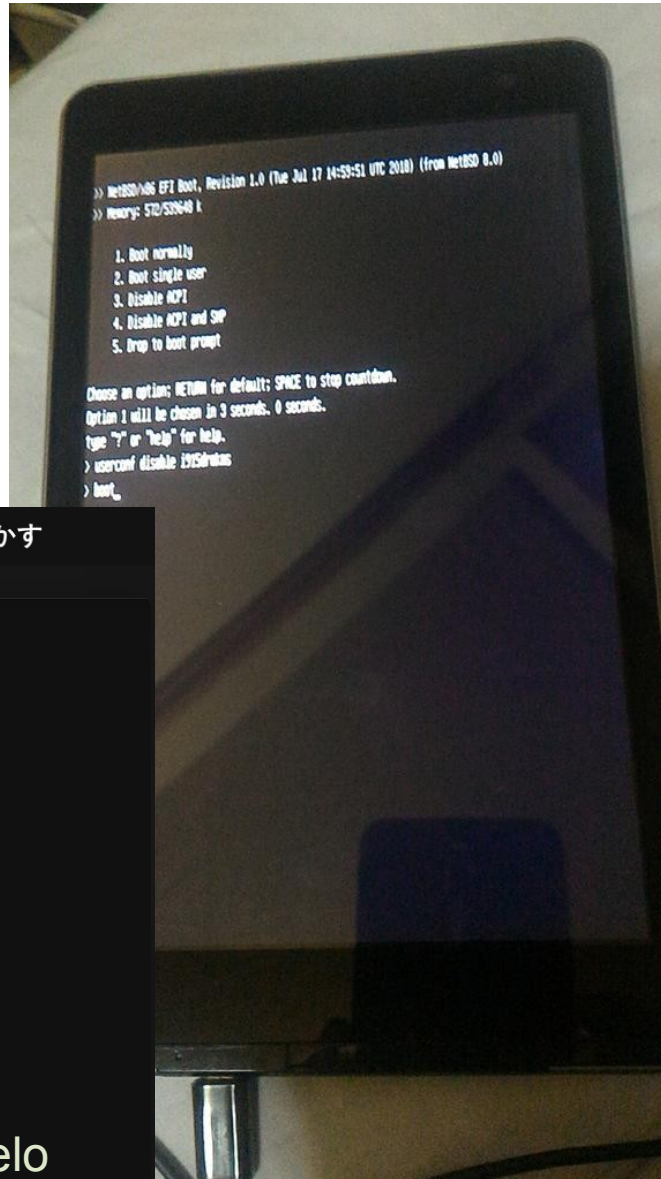
Boot NetBSD8.0

GPD WINとARROWS Tab Q506/MEでNetBSDを動かす

GPD WIN と
ARROWS Tab Q506/ME で
NetBSD を動かす

とんぬら (@tristelo)

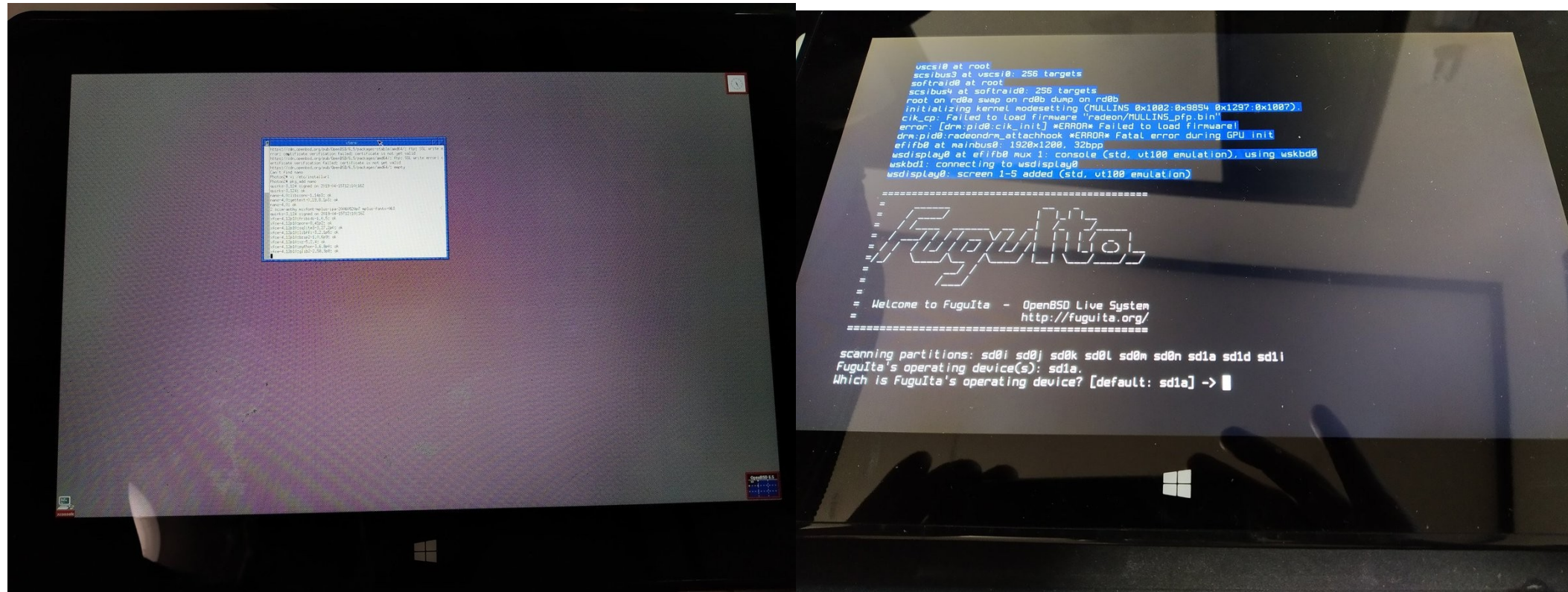
NetBSD Reported @tristelo



OpenBSD Fugulta in Windows Tablet

- Testing OpenBSD in Windows Tablet. I am using Fugulta Liveimage. Touchscreen driver can use OpenBSD too.

Photon2 & OpenBSD Fugulta



OpenBSD Fugulta in Windows Tablet⁵¹

Boot OpenBSD

Xorg and the others

- ThinkPad10 ⇒ Touchscreen OK
- Photon2 ⇒ Touchscreen OK
- Dynabook Tab S38 ⇒ Touchscreen OK
- WDP-76 ⇒ Touchscreen NG
- DG-D08IW ⇒ Touchscreen NG
- Star-Q
- WT7-C ⇒ Touchscreen NG
- GPD-WIN ⇒ Touchscreen OK
- GPD-Pocket ⇒ Touchscreen NG
- Gole1 ⇒ Touchscreen NG
- CLIDE 8.9 TVE8907i
-

No boot OpenBSD

- T100TA White-S
- T100TAM
- Yoga Tablet2
- Toshiba WT-8A
- Lenovo Miix 2 8
- DELL Venue 10 Pro 5055
- Dynabook Tab S29

RaspberryPi Desktop in the old UMPC

Raspbian(Debian) based x86 OS can download in RaspberryPi Website.
Raspberry Pi Desktop can install old PC devices and reuse it, like RaspberryPi
Let's install it, newer software and can play PCSX...



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Raspberry Pi Desktop

Debian with Raspberry Pi Desktop is the Foundation's operating system for PC and Mac. You can create a live disc, run it in a virtual machine, or even install it on your computer.

Raspberry Pi Desktop comes pre-installed with plenty of software for education, programming and general use; including Python, Scratch, Sonic Pi, Java, and more.



Debian Stretch with Raspberry Pi Desktop

The Raspberry Pi Desktop OS for PC and Mac - based on Debian Stretch

Version: April 2019
Release date: 2019-04-11
Kernel version: 4.9

[Download Torrent](#)

[Download ISO](#)

SHA-256:

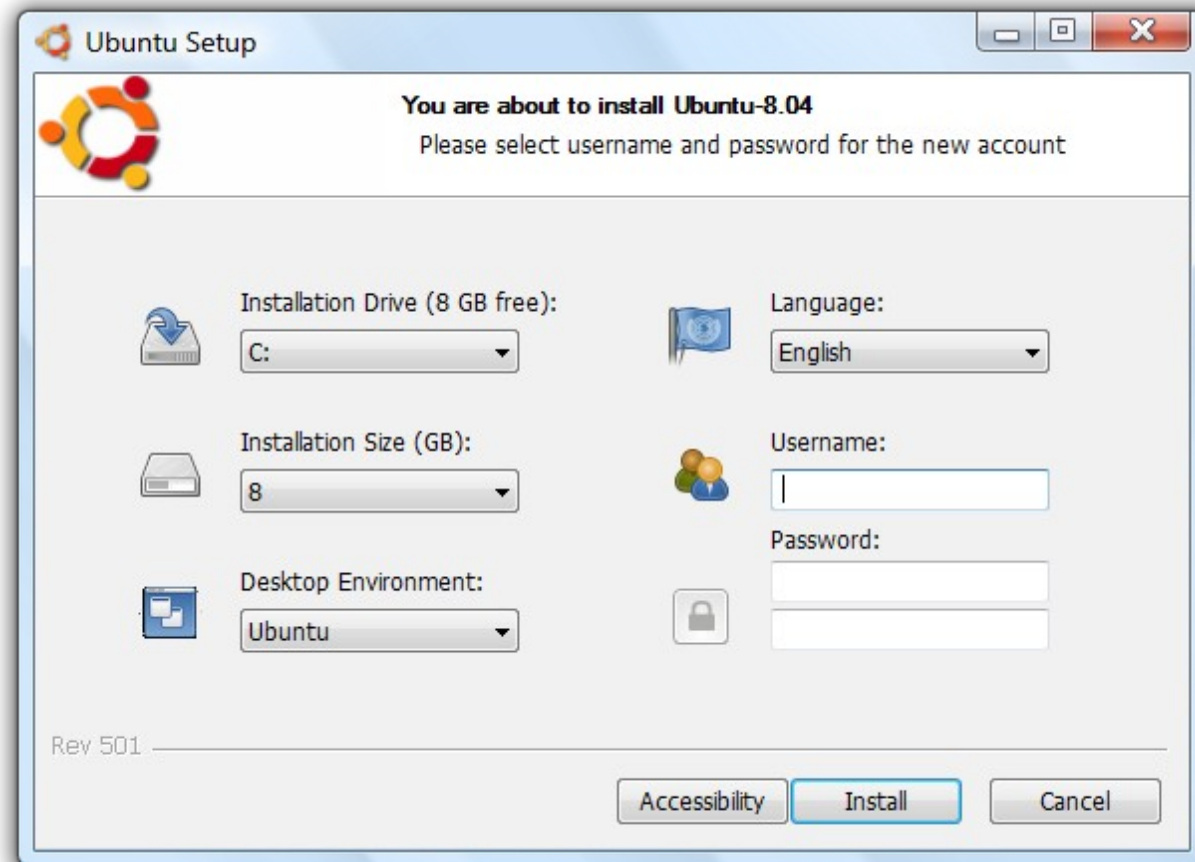
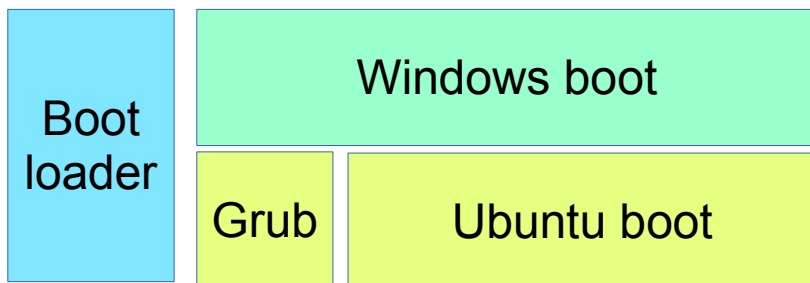
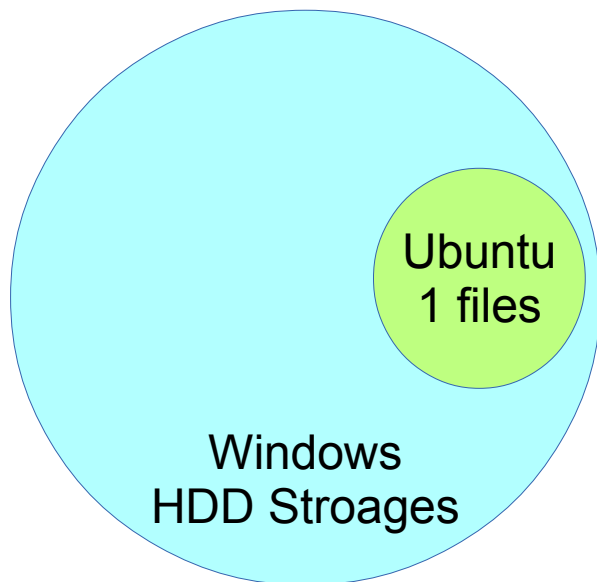
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Vaio Type-P on Linux RaspberryPi Desktop



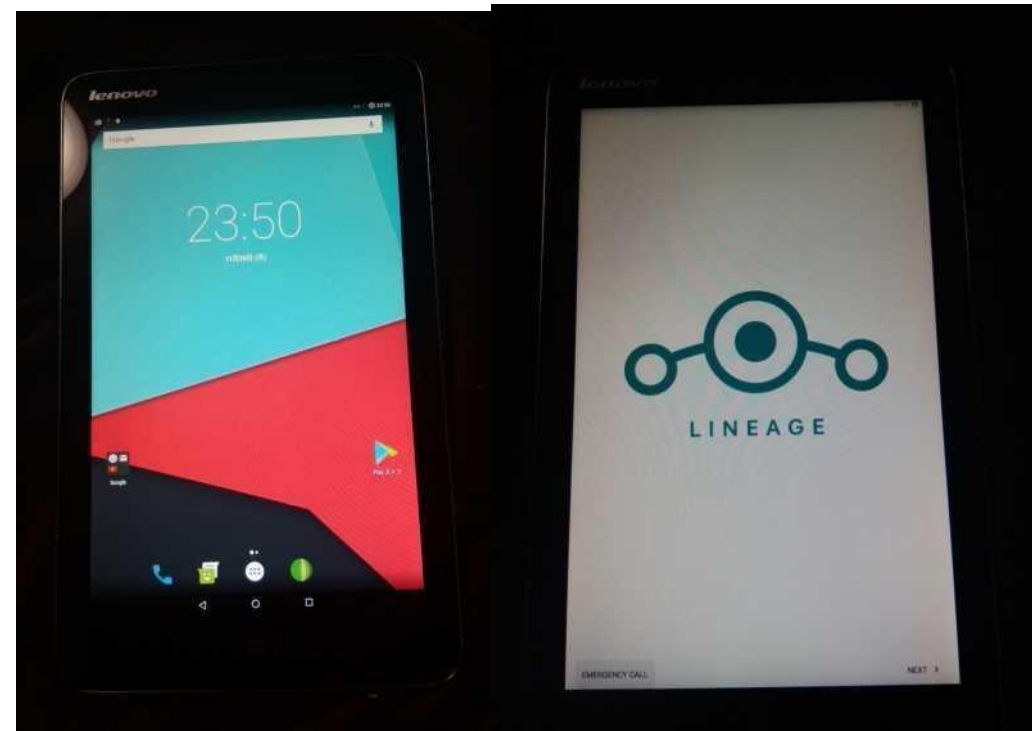
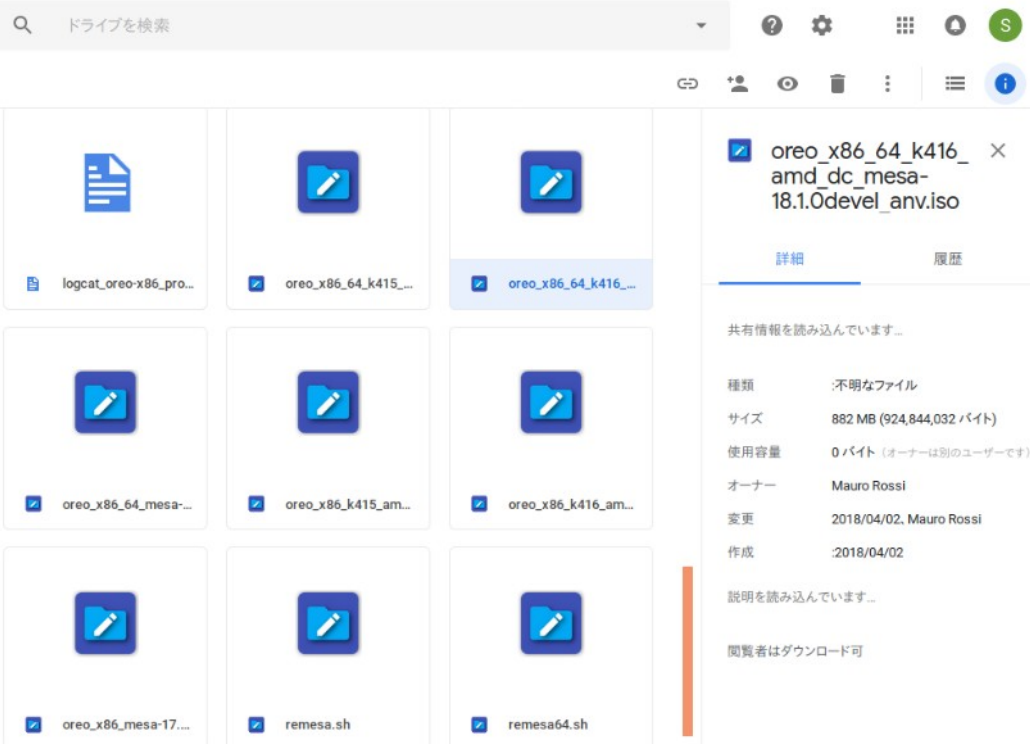
Wubi(Windows-based Ubuntu Installer) ?

- Wubi for Ubuntu is dualboot installer EXE files in Windows.
- Ubuntu install 1 files in loopback images.No separate Partitions and bootloader. Safe install and delete it in Windows.
- Q4OS(Debian based amd64 only) is supported Wubi too. Let's install Ubuntu and Q4OS in Windows OS.



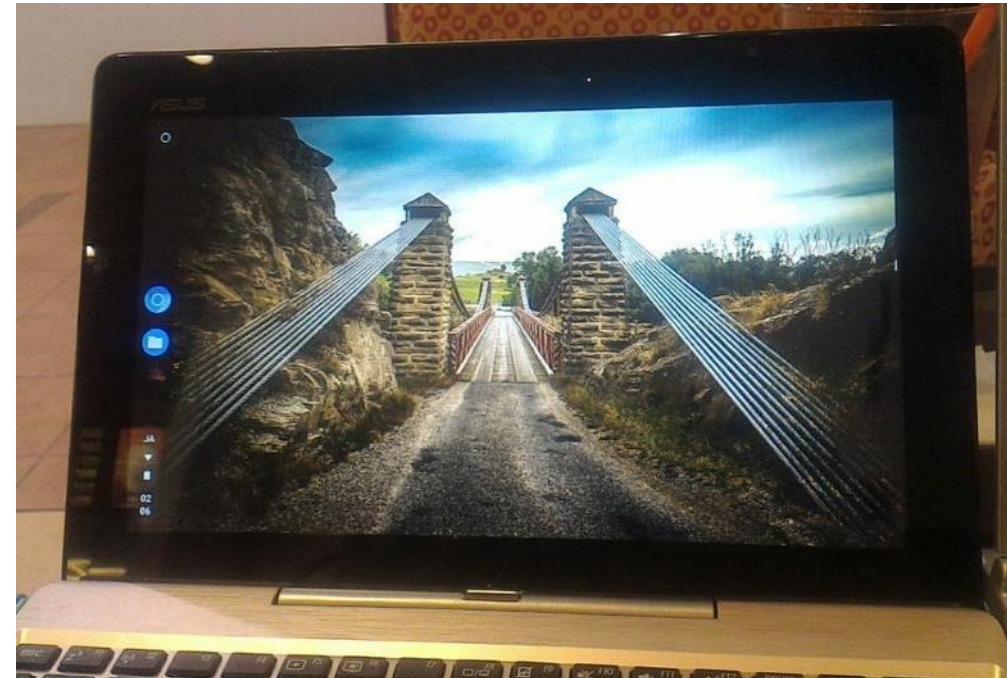
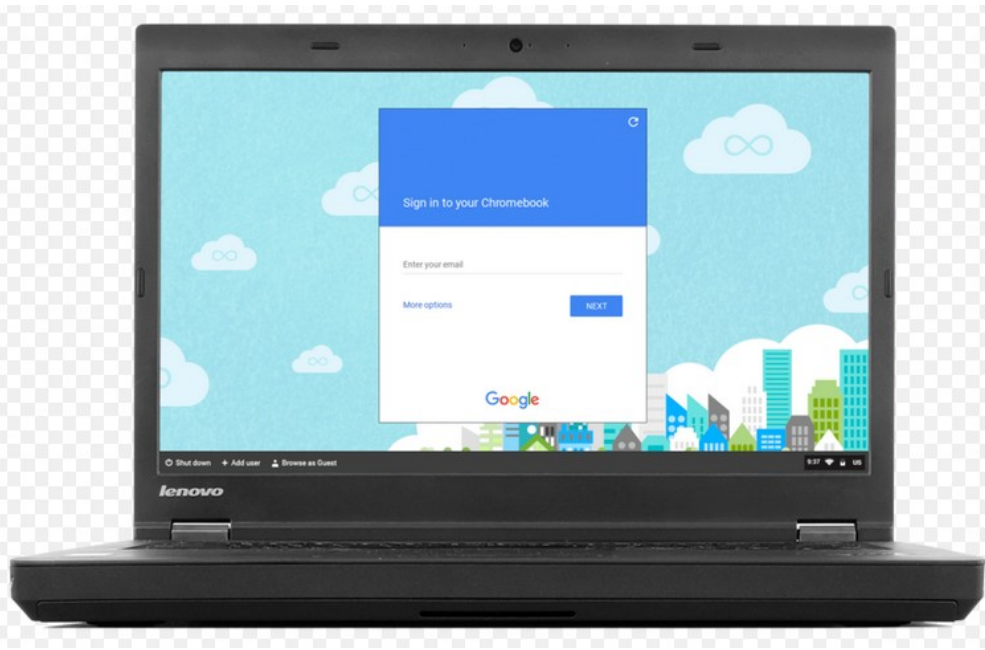
Android-x86 in Windows Tablet

- Android-x86 on Windows Tablet and GPD-Pocket
- Kernel4.19 have some drivers and bugfix on Atom. Please use newer version Android-x86 Kernel4.19.
- PhoenixOS can install in Windows, double cricks EXE files only.



ChromeOS, Cloudready

- ChromeOS on Windows Tablet and GPD-Pocket
- Cloudready is free chromeOS, OldPC can use Chrome, Android and Linux applications.
- Cloudready Supported UEFI32bit, 64bit



Conclusions

- A lot of **inexpensive devices** can install **Linux**, like old smartphone, Tablet and so on.
- **The third SmartPhoneOS** can install some **devices**, and developing now.
- Some processors can install and boot **Linux** from **SD cards**.
- **Windows Tablet** can install Linux and *BSD easily.
- Let's install Linux and *BSD, and reuse it.

Thank you very much.