



MultiROM

The multiboot modification
for Android devices

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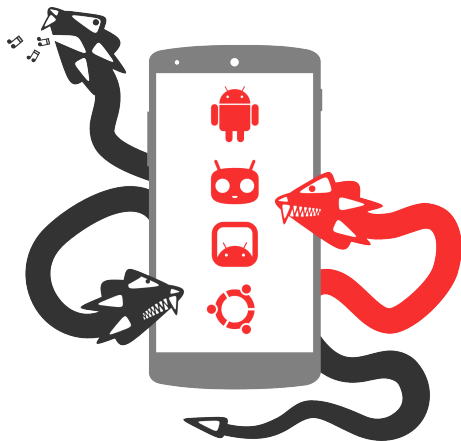






MultiROM

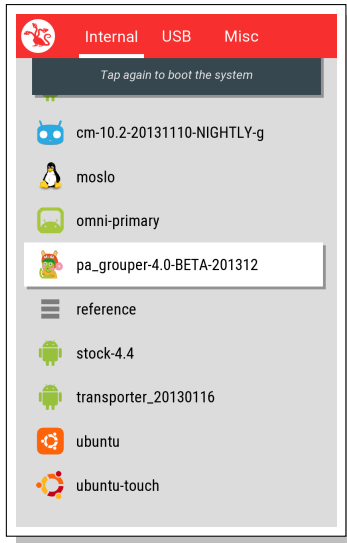
- multiple operating systems at once – *multiboot*
- supports many different operating systems
- easy to use



Boot Manager

1. Boot manager | 2. Modified recovery | 3. Kexec-hardboot patch | 4. Android app

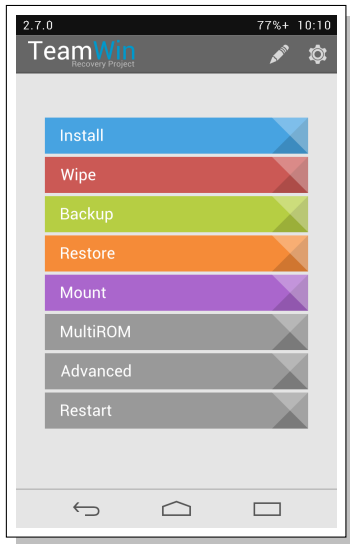
- shows up during boot
- lets user choose which system to boot
- contains most of the code related to multibooting
- can automatically boot pre-selected system



Modified recovery

1. Boot manager | **2. Modified recovery** | 3. Kexec-hardboot patch | 4. Android app

- originally intended for recovery of the main system
- management of the secondary systems
- MultiROM settings
- based on the TWRP open-source project



Kexec-hardboot patch

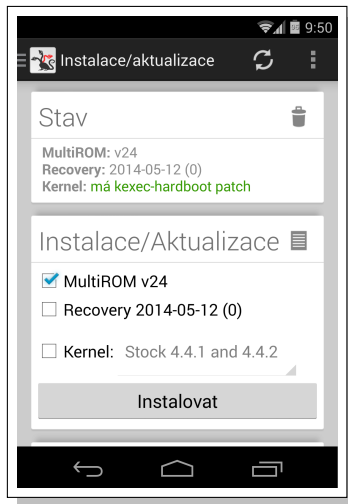
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- Linux kernel modification
- starts new kernel from the already running one
- **enables multiboot on devices as limited as Android phones and tablets**

Android application

1. Boot manager | 2. Modified recovery | 3. Kexec-hardboot patch | **4. Android app**

- installs and updates all parts of MultiROM
- can rename and delete secondary systems
- boot directly into one of the systems



Probably a live demo!



Project status

- generally useful utility
- 4 supported devices and several unofficial ports done by community
- over 30 000 active installations
- other developers are using MultiROM and its parts
- successful crowdfunding campaign
- participation on several student competitions

Obstacles

- the platform is very fragmented
 - no BIOS/ACPI/UEFI -> separate kernels for each device
 - each device is different, especially across different vendors
 - even ROMs can be quite different at low-level

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 - each device is different, especially across different vendors
 - even ROMs can be quite different at low-level
- hidden bugs
- people are... *people*

Thank you for your attention!

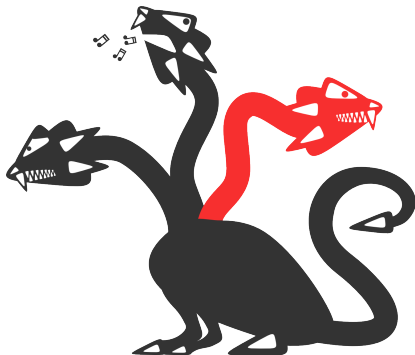


Image sources:

Miri the Hydra: me.

Schrödinger's cat: <http://draguunthor.deviantart.com/art/Schrodinger-s-Cat-163302750>

All the OS logos: The internets, you don't really care if I put sources in here or not ^^.