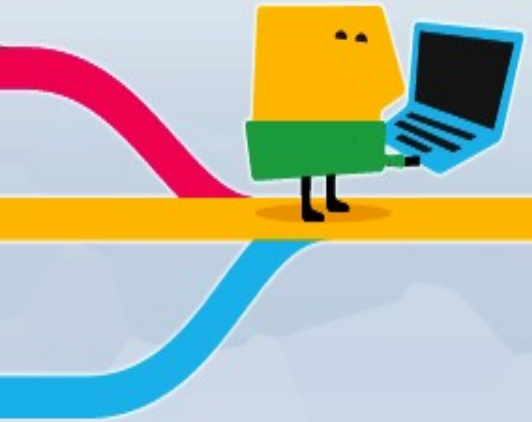
Porting MeeGo to Other devices



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My bio

- Mitsutaka Amano (blog.mitsutaka.org)
- Moblin
  - moblin 1.x
    - Contributed as a maintainer of Moblin Image Creator.
  - moblin 2.x
    - Localization
    - Speaking at some events.
- MeeGo
  - MeeGo v1.x
    - Released the Netbook Japanese edition(v1.0).
    - Porting to other devices.

Agenda

- About the MeeGo
- My activity for MeeGo
- Porting step by step
- Issues, In the future
- Misc. Demo

My activity for MeeGo

- How to port MeeGo to other devices
- Focused on Nexus One(Google, HTC)

About the MeeGo

MeeGo

The new Linux distrobution, community

Target smartphones, netbooks, In-Vehicle Infortainment, Connected TV, Media Phones

Headed up by Intel, Maemo by Nokia

Difficulty

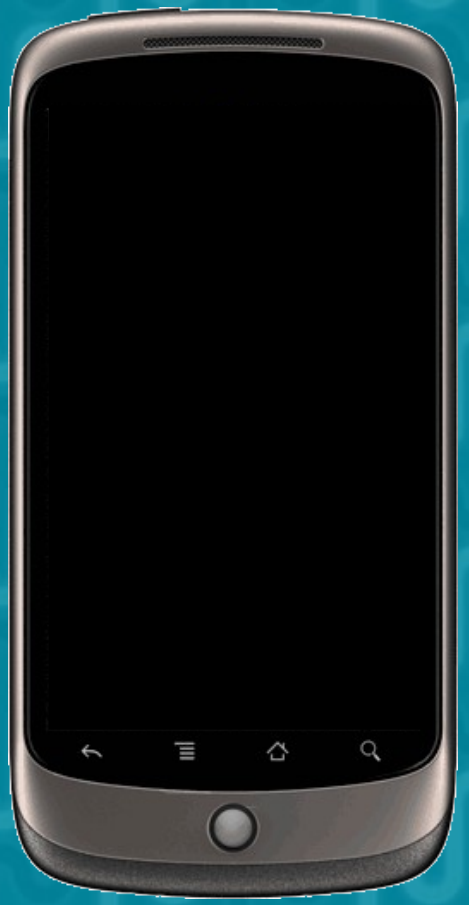
- Easy: Supported devices by MeeGo
- Normal: Unsupported Netbooks
- Hard: OMAP based platforms
- Harder: Smartphones
- Hardest: Unsupported architecture platforms

Step1: How to restore your devices

- Nexus One
  - Unlock the bootloader via fastboot cmd.
    - $ fastboot oem unlock
  - Copying files to mtdblock from PC via fastboot cmd.
    - $ fastboot flash userdata userdata.img
    - $ fastboot flash boot boot.img
    - $ fastboot flash system system.img
    - $ fastboot flash recovery recovery.img

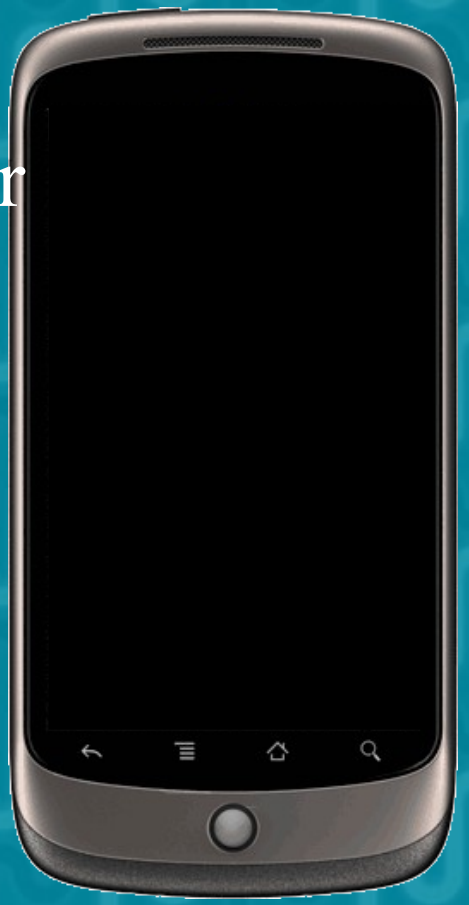
Step2: Creating an image

- Boot from microSD
- mic2(0.17 or later). MeeGo Image Creator
  - --format raw --arch armv7l
- Write a raw image to the microSD



Step2: Creating an image

- Android kernel 2.6.29
  - Change the firmware path to “/etc/firmware”
  - Start with mahimahi_config
  - Use bcm4329.ko as the wifi driver



Step3: Boot

- fastboot
  - Load zImage to devices
  - ./fastboot -c 'init=/sbin/init rootwait root=/dev/mmcblk0p1 rootfstype=ext3 rw' boot zImage

Step4: Display X Window and the Desktop

- Handset UX(Direct UI)
  - xorg-x11-fbdev, (xorg-x11-evdev)
  - mesa-dri-swrast-driver
- Portrait default is refered of aava
  - /etc/meegotouch/devices.conf
- Software rendering (Too slow)

Step5: Merge to the MeeGo kernel

- Working now!
- Merge to MeeGo v1.1
- Kernel 2.6.35
  - ARM MSM is no supported
- [GIT PULL] ARM MSM update for 2.6.35
  - No merge

Next step: Release

- microSD image and zImage
- Kickstart file
- MeeGo for NexusOne(MSMQSD) will released(Snapshots)

Issues, In the future

- Hardware acceleration support(EGL)
- Peripheral support(Sensors, Multi-touch, H/W buttons, Telephony stack)
- Complete replacement!
  - Android => MeeGo :-)
  - Boot from mtdblock partition
- Support any smartphones. HTC, SonyEricsson, etc

Misc.

- Android Debug Bridge(adb)
  - /system/bin/sh -> /bin/bash
- http://wiki.meego.com/ARM/MSMQSD

URLs

MeeGo official page: http://meego.com/

Technical notes, Wiki page: http://wiki.meego.com/

Bugzilla: http://bugzilla.meego.com/

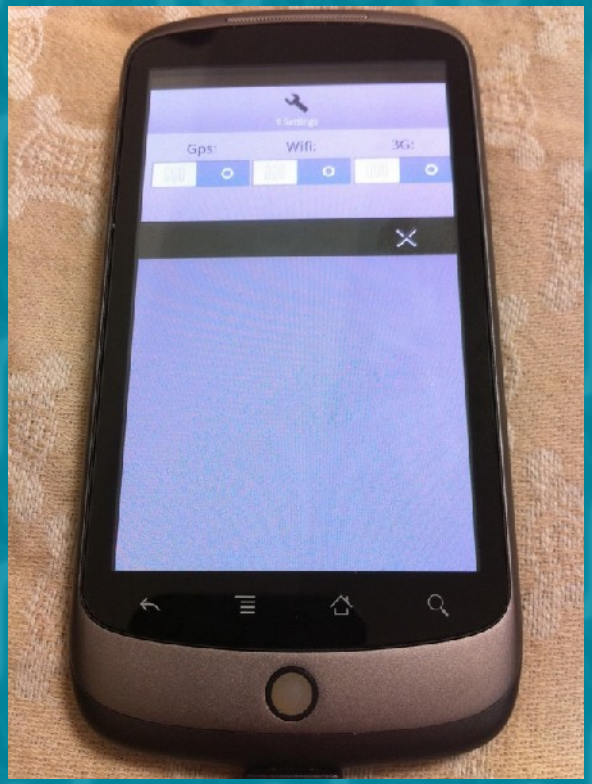
Source code repository: http://meego.gitorious.org/

MeeGo Japanese site: http://meego.jp/

MeeGo Users Group: http://meego-users.jp/

Demo


Social
Qt
People
Chat
Lock
Fennec
Video Player
xterm Terminal
Settings
MeeGo Hands...


Gps:
Wifi:
3G:

Q&A

Thank you!