Pharo ARM Status

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Who I am

- PhD in Language design and security
- Member of the Pharo community since 5 years
- Doing a post-doc in RMoD Team, working on static analysis on python
- Maintainer of the ARM for Pharo

Roadmap

- Raspberry Pi Status
- Android Status
- Small demo :-)

Raspberry Pi

Tasks done

- Stack Interpreter
- VM with FastBItBit (T. Rowledge, B. Avison)
- Complete Building process
- On http://files.pharo.org/
- FFI arm (Doug Mc Pherson), OSProcess
- A StackInterpreter with NativeBoost

Issues

- Raspberry Pi configuration
- Raspberry Pi Toolchains
- Raspberry Pi is not a desktop computer

Recommendations

- Do not upgrade your platform every day
- Develop on Unix and release on Raspberry pi
- Remote tests / Automatic tests

How to Extend The VM

- Fork the pharoVM github repository
- Subclass of StackCrossRaspbianFastBltConfig
- Go on Pharo Contribution:
  - Copy the jobs:
    - RaspberryPi-Cog-Git-Tracker, linked your pharoVM fork
    - RaspberryPi-Cross-Compilation-FastBltBit, here call your configuration subclass

Tasks to be done

- Add a GPIO support (Wiring Pi lib via FFI) in progress
- Jenkins tests / Specific automated Tests
- Pharo for Embedded
- VCPU Arm (Ask Igor) ==> NativeBoost ARM
- JitCompiler for ARM (Ask Tim)

Useful links

- LastVM
  - http://files.pharo.org/vm/pharoS/raspbian/latest.zip
- PharoVM
  - https://github.com/pharo-project/pharo-vm

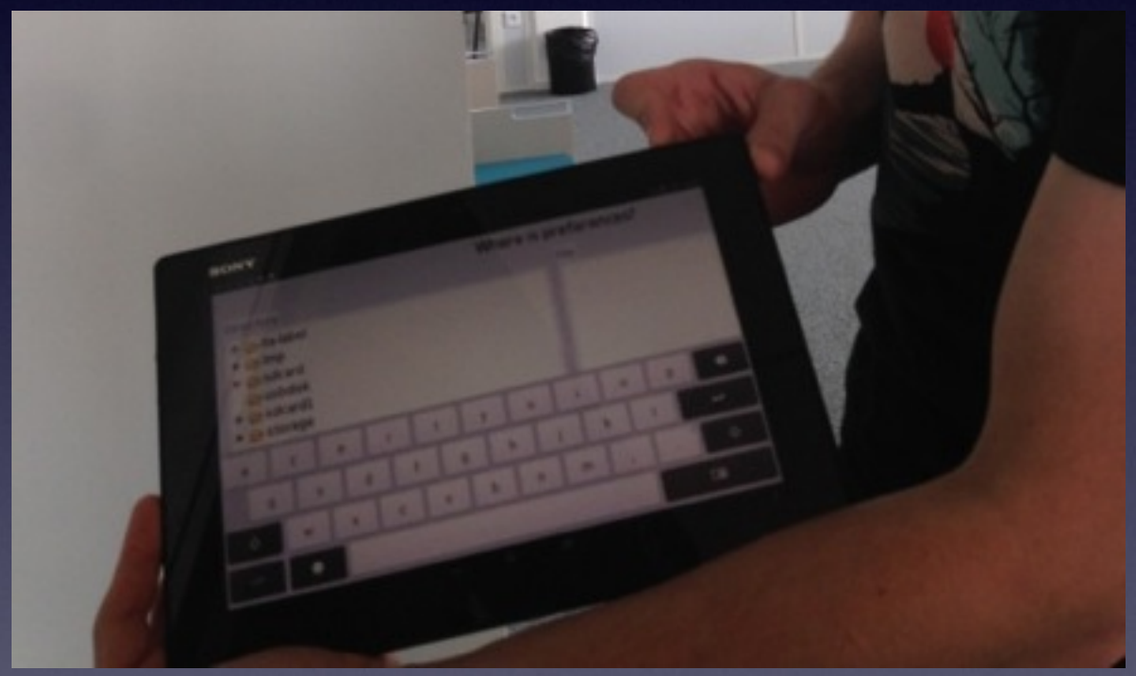
Android

Android Status

- CogDroid project stopped since ~ 2 years
  - Based on a fork of unix sources
  - Not maintained anymore

Android Status

- Goals
  - Revive the Stack VM Android
  - Keep the source closest possible to the Unix Sources



Tasks done

- Tamed the Native Android process
- Redirected the VM Debugging methods to logcat
- Be able to load external libraries from VM
- Managed Display plugin as *external* library
- Run a Pharo40 image

Jobs to be done

- Manage Events
- Merge with PharoVM Repository master
- Configuration generator
- Jenkins Process
- Android primitives
- Job to package images into Pharo applications

DEMO

DEMO

DEMO

SSID: RaspARMDemo

Pass: ESUG2015

http://192.168.42.1:8081/GPIOController

Before questions

Question