How to develop applications for OpenMOKO

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Slide **1**

Fetch the cross-compiler

- Now, you need cross-compiler to compile your source code

- You could find prebuild version here

  - http://downloads.openmoko.org/toolchains/

- You could also download it from webhd

  - Sharing name : openmoko

- Note : there are 2 versions

  - I686 & x86_64

Decompress to indicate path

- Change to super user mode

  - $su -

- Decompress

  - #cd / ---> change your current path to /

  - #tar jxvf ~/openmoko-XYZ-arm-linux-gnueabi-toolchain.tar.bz2 ---> decompress binary file to /usr/local/openmoko

Copy sample to local path

- You could modify the sample code which were provided by openmoko (easily way to write your own code)

  - $cp -r /usr/local/openmoko/source/openmoko-sample2 ~/

- Set the environment variables

  - $sudo . /usr/local/openmoko/arm/setup-env

Build openmoko-sample

- $om-conf openmoko-sample2(check environment)

- $cd openmoko-sample2(change path 2 sample)

- $make (build sample)

How to modify the sample project

- mv openmoko-sample2 your-project-name

- cd your-project-name

- cd src

- rm *.c

- cp your-sources .

- cd ..

How to modify the sample project(cont.)

- modify autogen.sh
  - PKG_NAME="your-project-name"

- modify configure.ac
  - AC_INIT(your-project-main, 0.0.1, http://www.openmoko.org/)
  - AC_CONFIG_SRCDIR(src/main.c)

How to modify the sample project(cont.)

- go into data/ folder and rename these files with the name of your project

  - cd data

  - mv openmoko-sample.png your-project-name.png

  - mv openmoko-sample.desktop your-project-name.desktop

How to modify the sample project(cont.)

- modify Makefile.am inside data/
  - dist_desktop_DATA = your-project-name.desktop
  - dist_appicon_DATA = your-project-name.png
- modify Makefile.in inside data/
  - dist_desktop_DATA = smart-search.desktop
  - dist_appicon_DATA = smart-search.png

How to modify the sample project(cont.)

- modify your-project-name.desktop
  - Name=your-project-name
  - Encoding=UTF-8
  - Version=0.0.1
  - Type=Application
  - Exec=your-project-name
- Add following line
  - Icon=your-project-name

How to modify the sample project(cont.)

- cd ..

- cd src

- modify Makefile.am

  - bin_PROGRAMS = your-project-name

  - your_project_name_SOURCES = \

  - main.c

  - your_project_name_LDADD =
    @DEPENDENCIES_LIBS@

Packaging your application

- om-make-ipkg openmoko-sample2

- Install into openmoko

  - scp openmoko-sample2_0.1_armv4t.ipk root@192.168.0.202:

  - ssh root@192.168.0.202 ipkg install openmoko-sample2_0.1_armv4t.ipk

Mmmm.....

Too Complex for first time

Write hello world

- If your just want to write "Hello world"

- Following these step

- $ vi main.c (write some code)

- $ /usr/local/openmoko/arm/bin/arm-angstrom-linux-gnueabi-gcc -o hello main.c

- scp hello root@192.168.0.202:/tmp/

- ssh root@192.168.0.202 /tmp/hello

- Let's all

Note

- If you got some reasons ,like me, and cannot connect Qemu via usb

- You could use the way of pppd

  - Add -serial vc -serial pty to the QEMU command line

- On NEO site

  - Type pppd nodetach debug /dev/ttySAC1

- On host site

  - Type pppd nodetach debug 192.168.68.1:192.168.68.2 noauth /dev/pts/12