

OpenEmbedded

a new approach to crosscompiling, packaging and testing for embedded systems

Koen Kooi

INdT Bossa Conference, 2007

Outline

OpenEmbedded

Koen Kooi

Introduction

Introduction

build tools

build tools

departments

departments

Tests

Tests

Summary

What is OE?

- ▶ first and foremost a buildsystem
- ▶ can crosscompile
- ▶ can run some tasks under qemu
- ▶ can package programs into tar, deb, rpm and ipk

prebuilt toolchains are overrated

- ▶ download them
- ▶ "fire and forget"
- ▶ bugfixes?
- ▶ use crosstool or OE
- ▶ 64 bit problems (gcc3)

SDKs are not overrated

- ▶ contain headers and libs needed to compile against
- ▶ hard to get right
- ▶ closely coupled to the toolchain

Seperate build, development and testing

- ▶ develop application the way you like
- ▶ let a dedicated tool take care of build and packaging details
- ▶ test the results on real hardware
- ▶ don't burden coders with packaging hell!

QA

- ▶ report builds to tinderbox
- ▶ patch gcc to ICE when encountering `-I/usr/include` and `-L/usr/lib`

Packaging

- ▶ shlibs
- ▶ upgrade path

Links

- ▶ <http://openembedded.org>