OpenCV Performance on MAEMO
Introduction

- What is OpenCV
- How it help MAEMO
Purpose project

- Cross-compiling to ARM
- Portable library on MAEMO
- Performance on MAEMO
Motivation

- More great (interesting) content for user
- Smart device VS PC
Introduction in the OpenCV

**OpenCV** *(Open Source Computer Vision Library)*

- Computer Vision Library
- C/C++
- Module
- BSD
Operations on Arrays
Dynamic Structures
Drawing Functions
XML/YAML Persistence
Clustering and Search in Multi-Dimensional Spaces
Utility and System Functions and Macros
CV

- Image Filtering
- Geometric Image Transformations
- Miscellaneous Image Transformations
- Histograms
- Feature Detection
- Motion Analysis and Object Tracking
- Structural Analysis and Shape Descriptors
- Planar Subdivisions
- Object Detection
- Camera Calibration and 3D Reconstruction
Highgui

- User Interface
- Reading and Writing Images and Video
Project milestones

- Cross-compilation for ARM
- Porting to MAEMO4, MAEMO5
- Test cases
- Performance testing
- Performance tuning
- DEB packaging
- Project release
Test cases

- Linear filtering
- Face recognition
- Motion tracking
Test case 1 – linear filtering

- PC: 0.0564 sec
- N810: 0.158203 sec
- N900: 0.0681 sec
Test case 2 – face recognition

- PC: 0.0643 seconds
- N810: 23.3975 seconds
- N900: 1.0425 seconds

(time in seconds)
Test case 3 – motion tracking

![Bar chart showing FPS and Time for PC and N900]
Conclusion

- NO!? OpenCV for N810
- Yes! OpenCV for N900
Questions