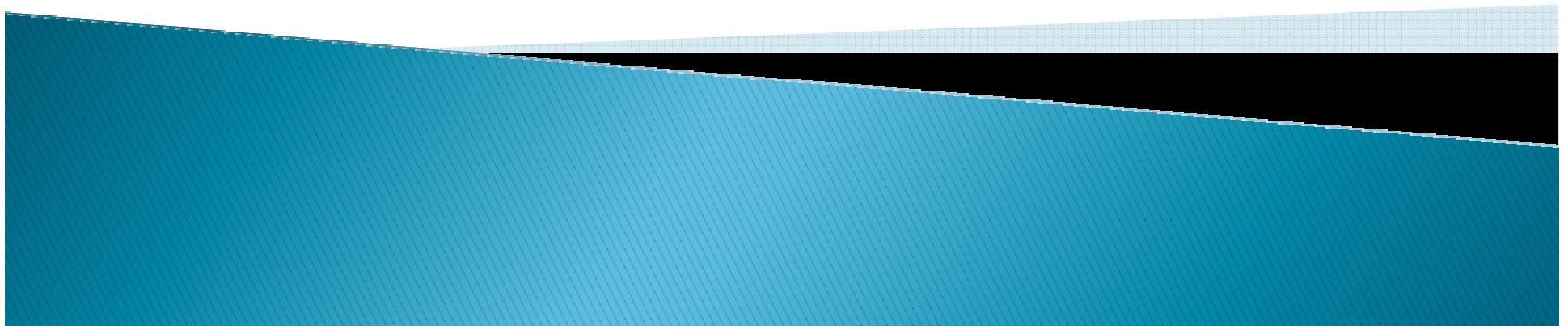




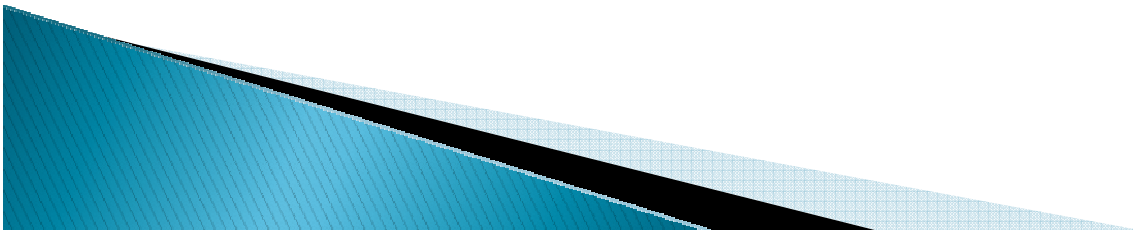
WL FRUCT LAB
UNN

OpenCV Performance on MAEMO



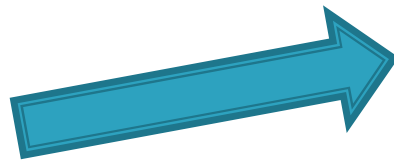
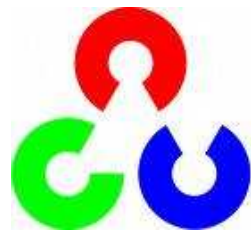
Introduction

- ▶ What is OpenCV
- ▶ How it help MAEMO



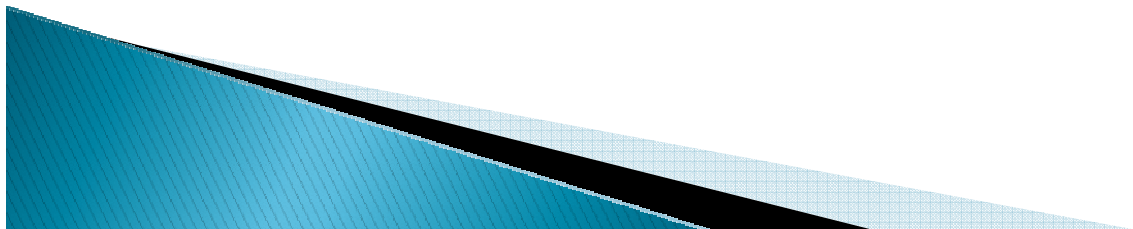
Purpose project

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



Motivation

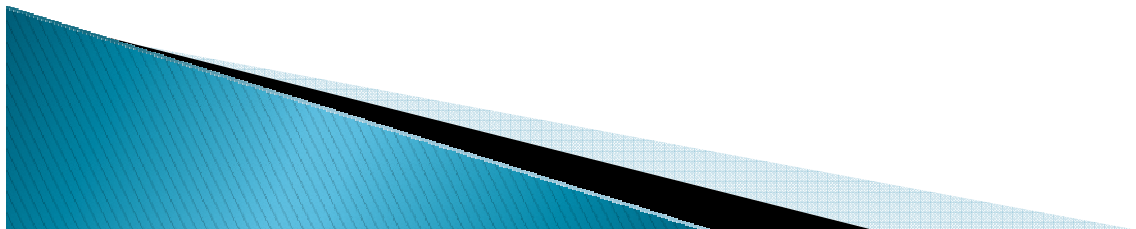
- ▶ More great (interesting) content for user
- ▶ Smart device VS PC



Introduction in the OpenCV

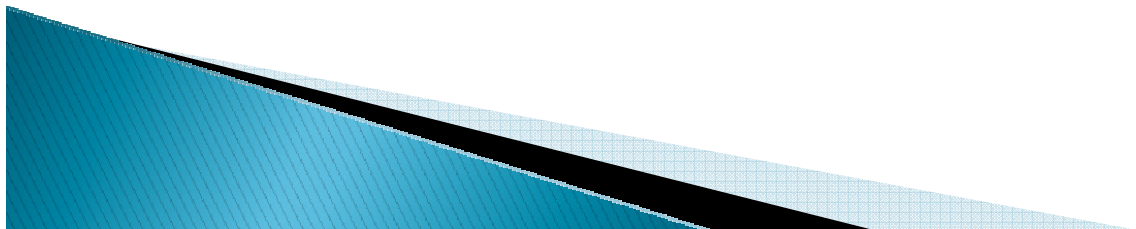
OpenCV (Open Source Computer Vision Library)

- *Computer Vision Library*
- C/C++
- Module
- *BSD*



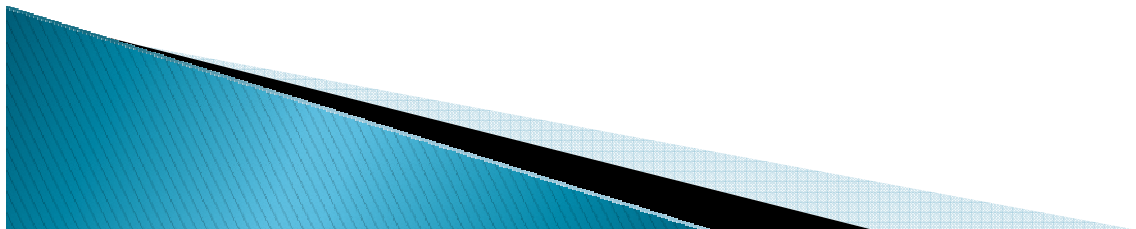
Cxcore

- ▶ Operations on Arrays
- ▶ Dynamic Structures
- ▶ Drawing Functions
- ▶ XML/YAML Persistence
- ▶ Clustering and Search in Multi-Dimensional Spaces
- ▶ Utility and System Functions and Macros



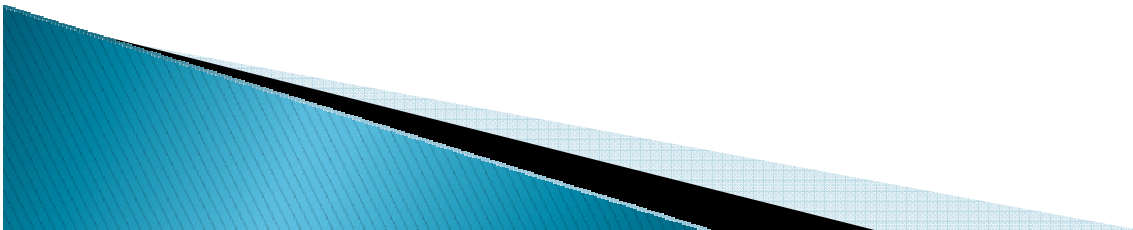
CV

- ▶ 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



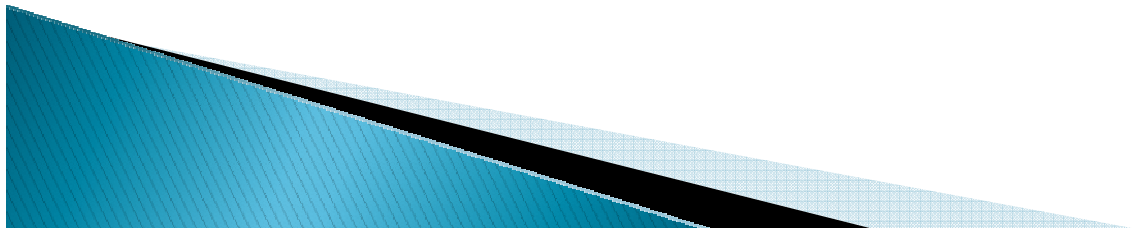
Highgui

- ▶ User Interface
- ▶ Reading and Writing Images and Video



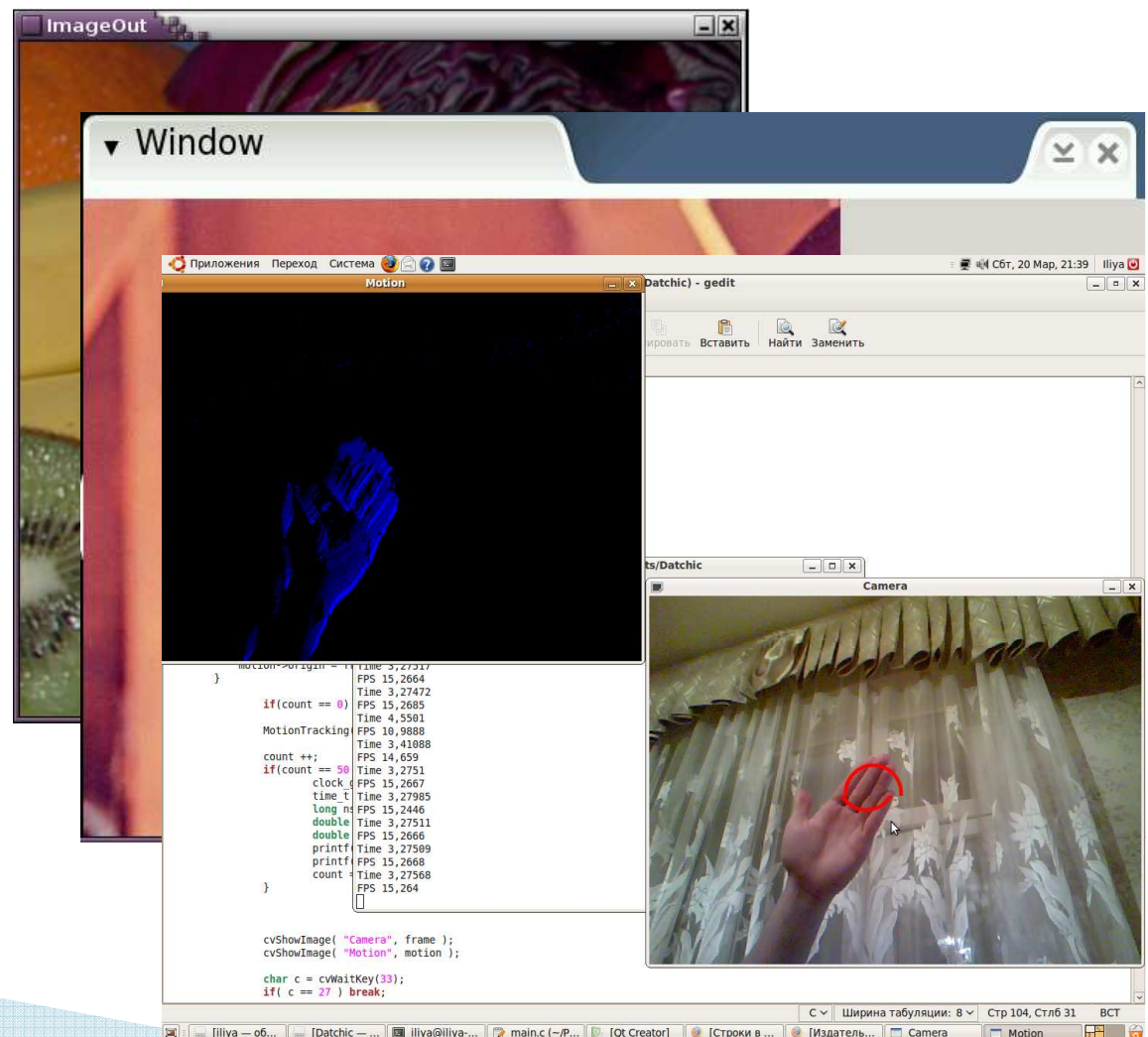
Project milestones

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

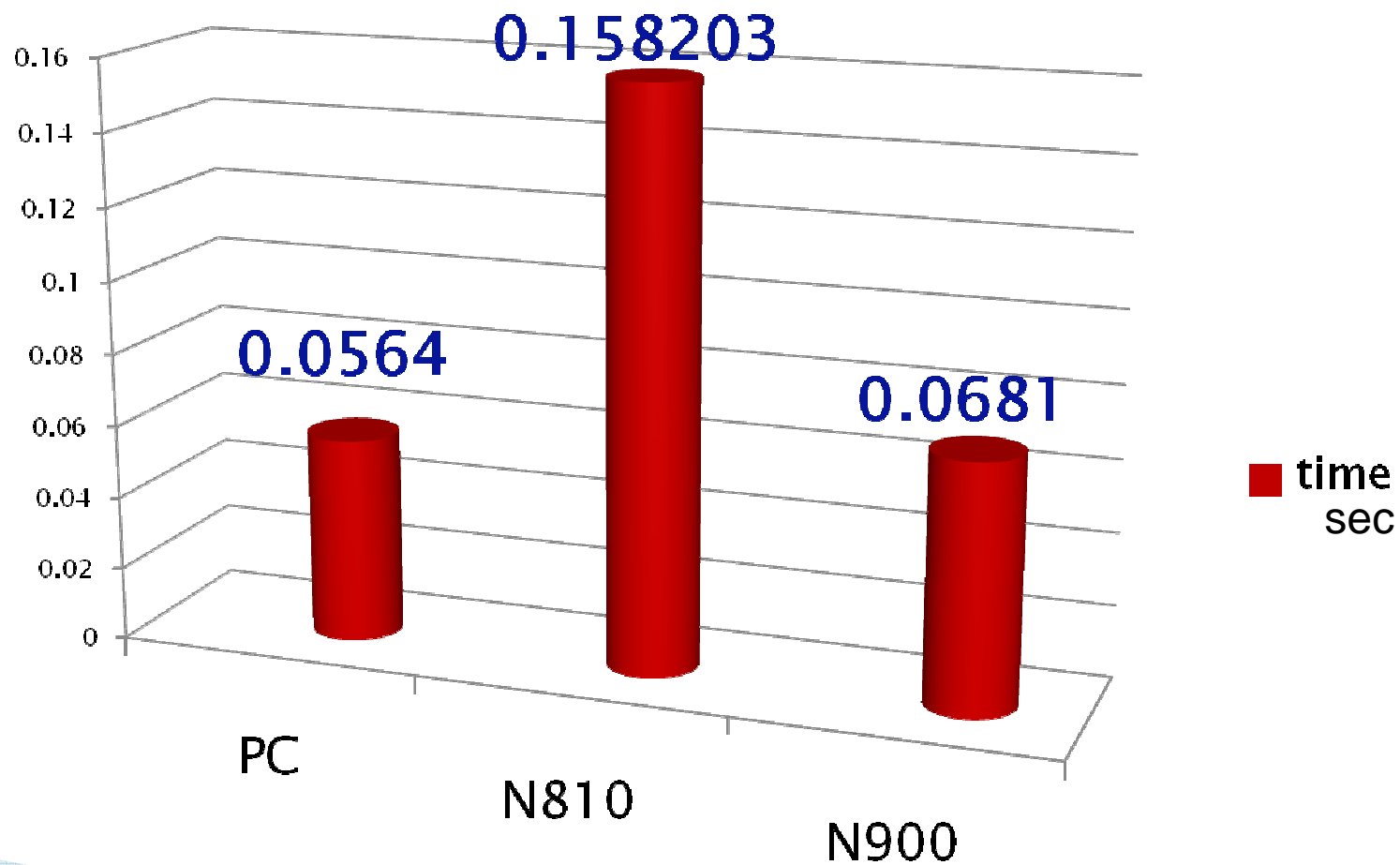


Test cases

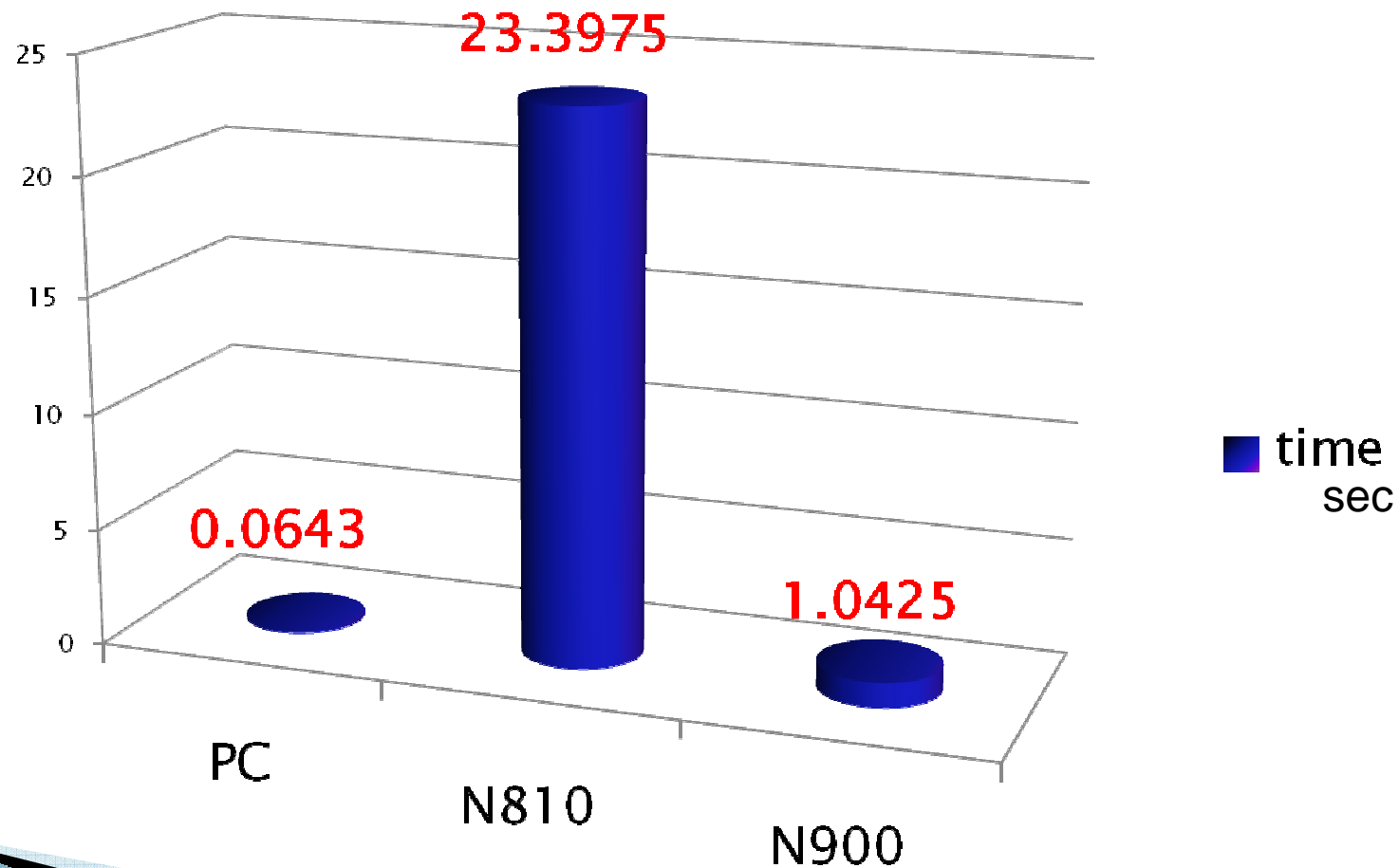
- ▶ Linear filtering
- ▶ Face recognition
- ▶ Motion tracking



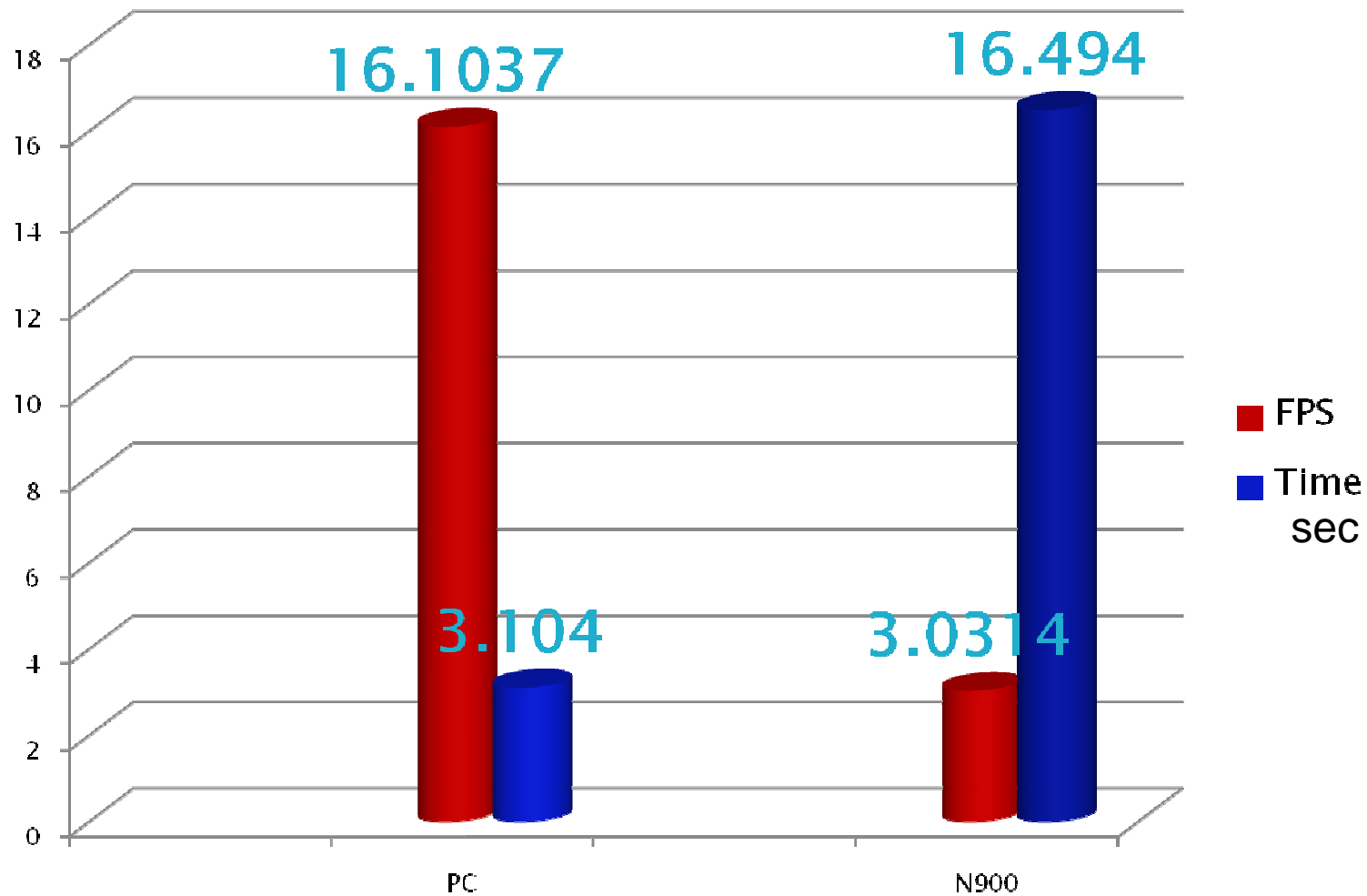
Test case 1 – linear filtering



Test case 2 – face recognition

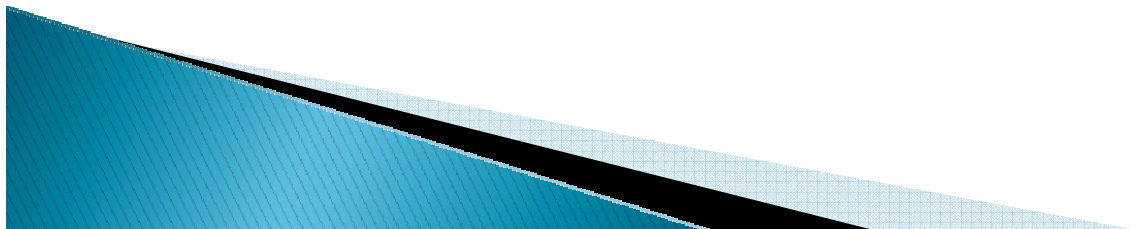


Test case 3 – motion tracking



Conclusion

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





Questions

