

Verteilte Systeme (D-INFK)

HS 2009

Prof. Dr. F. Mattern

Robert Adelman (adelmann@inf.ethz.ch)

Iulia Ion (iulia.ion@inf.ethz.ch)

Matthias Kovatsch (kovatsch@inf.ethz.ch)

ETH Zürich

Institut für Pervasive Computing

Verteilte Systeme

<http://www.vs.inf.ethz.ch>

Exercise 1

Start: 21 September 2009

End: 02 October 2009

Form teams of two for the practical exercises.

The Nokia N95 8G smart phones are handed out at the end of the lecture on Sep 21st.

1 Setting up a PyS60 Development Environment

In this exercise, you will get to know the platform and toolchain used for the practical exercises. For this, go to the VS Wiki (http://people.inf.ethz.ch/adelmanr/vs_lecture/) which is the central source for the exercises. Either download and install the Spark Environment or use the standard PyS60 tools provided by Nokia as part of the PyS60 Open Source project. We want you to be able to show us that you can write and test a simple PyS60 program on the mobile phone.

2 GUI Programming Basics

Familiarize yourself with the available GUI elements in PyS60 by using for example the provided external information sources or the GUI Demo application included in the Spark Environment.

Create an application with two menu entries. If the user selects entry number 1, draw a circle on the screen as well as your names. If menu entry 2 is selected, display a form that allows the user to enter a name and a number.

3 Sensor and Actuator Basics

The Nokia N95 8G provides several sensors and actuators. For this exercise, consider the following sensors and actuators: GPS, accelerometer, and camera, as well as speaker and vibration alarm.

Inform yourself about their APIs and create a menu entry for each sensor and actuator. When selecting the menu entry of a sensor, acquire and display the raw data. When an actuator's menu entry is selected, perform a corresponding action.