Exercise 2 – Praktikum Mobile Productivity

Understanding the Mobile Media API

Most modern mobile phones are equipped with cameras and microphones, which can be used for recording audio and making photos. This exercise aims at introducing you on how to use these features within a MIDlet.

There are two alternatives for this exercise:

1. Create a MIDlet that can be used to make a photo and display it to the mobile phone's screen. For taking the pictures, the camera stream has to be displayed like when using a digital camera. A snapshot can either be activated by clicking some button or using a Command.
2. Alternatively, create a MIDlet that can be used for recording an audio file. This application has to contain a method to play this audio file indefinite times after it has been recorded. Note that the audio does not have to be stored. This means the file must not be available after a restart.

You need to **implement only one** of these two alternatives.

Each student must check-in his/her own solution to his team's SVN folder by **Monday, October 30th, 12 p.m.** Create a sub-folder named after you and insert a folder called *excercise2* containing your solution.

Appendix 2.1 – Hints

1. The MIDP 2.0 API contains all packages needed for using the mobile phone's camera and microphone. The package is called *javax.microedition.media*.
2. The first step is creating a player using the appropriate type.
3. The type for video is *capture://video*, for audio you can use *capture://audio*.
4. Taking pictures and recording audio should run in an extra thread. If you don't know how to use threads in Java you should read a quick introduction like chapter 22 of the free available javabuch [1].

Appendix 2.2 – Books

There are several Java ME books located in the room 107 (Amalienstraße 17). They can be used but **must remain in the room** at any time. The newest one "Java ME" by Ulrich Breymann contains very good chapters on audio (9.2) and video (9.3). Reading them will make this exercise much more easy.

Resources

[1] http://www.javabuch.de