

Practical Course: Development of Media Systems / Praktikum Entwicklung Mediensysteme

H. Hußmann & A. Schmidt & E. Rukzio
Ludwig-Maximilians-Universität München
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<http://www.mimuc.de>

Structure

- Basic conditions of the practical course
- Topic: Mobile Museum Guide
 - Idea
 - Scenario
 - Work Packages
 - Architecture
- Organizational aspects
 - Tutorials
 - Next meetings

Basic Conditions

- Software development as teamwork
- Management and self-organization
 - Project and time management
 - Plan → result
 - Specification and documentation
- Project schedule / Requirement specification
 - Who does what and when?
 - Work packages, milestones, dependencies, structuring the tasks

Basic Conditions

- Predetermined
 - result
 - generic work packages
 - technical scope
 - there should be a kind of organization
- Official meetings (mostly) every 2 weeks
 - 18/04, 25/04, 02/05, 16/05, 30/05 (preliminary report), 13/06, 27/06, 11/07 (final report)

Mobile Museum Guide: Idea

- Usage of the own mobile device as a virtual guide (instead of using paper material or lending an audio player)
 - User (Tourist)
 - Already familiar with his own device
 - Access to the information also after this visit available
 - Possibly to request additional information (e.g. from WWW)
 - Museum / Park / Exhibition
 - New services for the visitor
 - Reduced costs (?)
 - Easy update of information

Mobile Museum Guide: Scenario

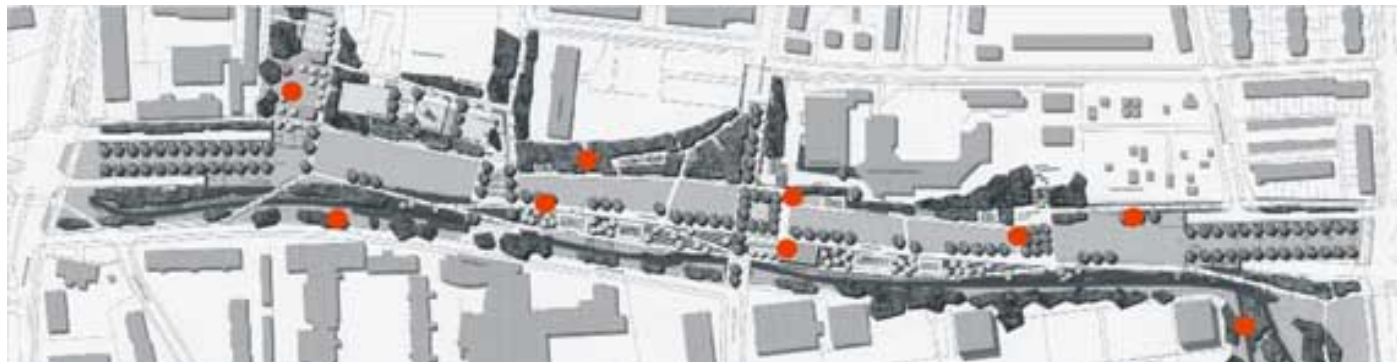
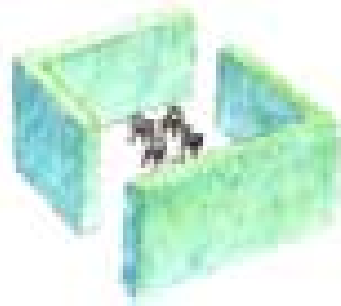
- Visitor enters the museum / park / exhibition
- Download of an MIDlet (Java application) or i-mode webpage
- Direct interaction with the exhibit (visual code), physical link → Gets information (audio or visual) on his mobile device
 - Usage of built-in camera of the mobile phone, Marker on poster represents service (URL)
 - Bridge between the real and the virtual world
- Indirect interaction with the exhibit, position-based (user is nearby an object) → Gets information (audio or visual) on his mobile device



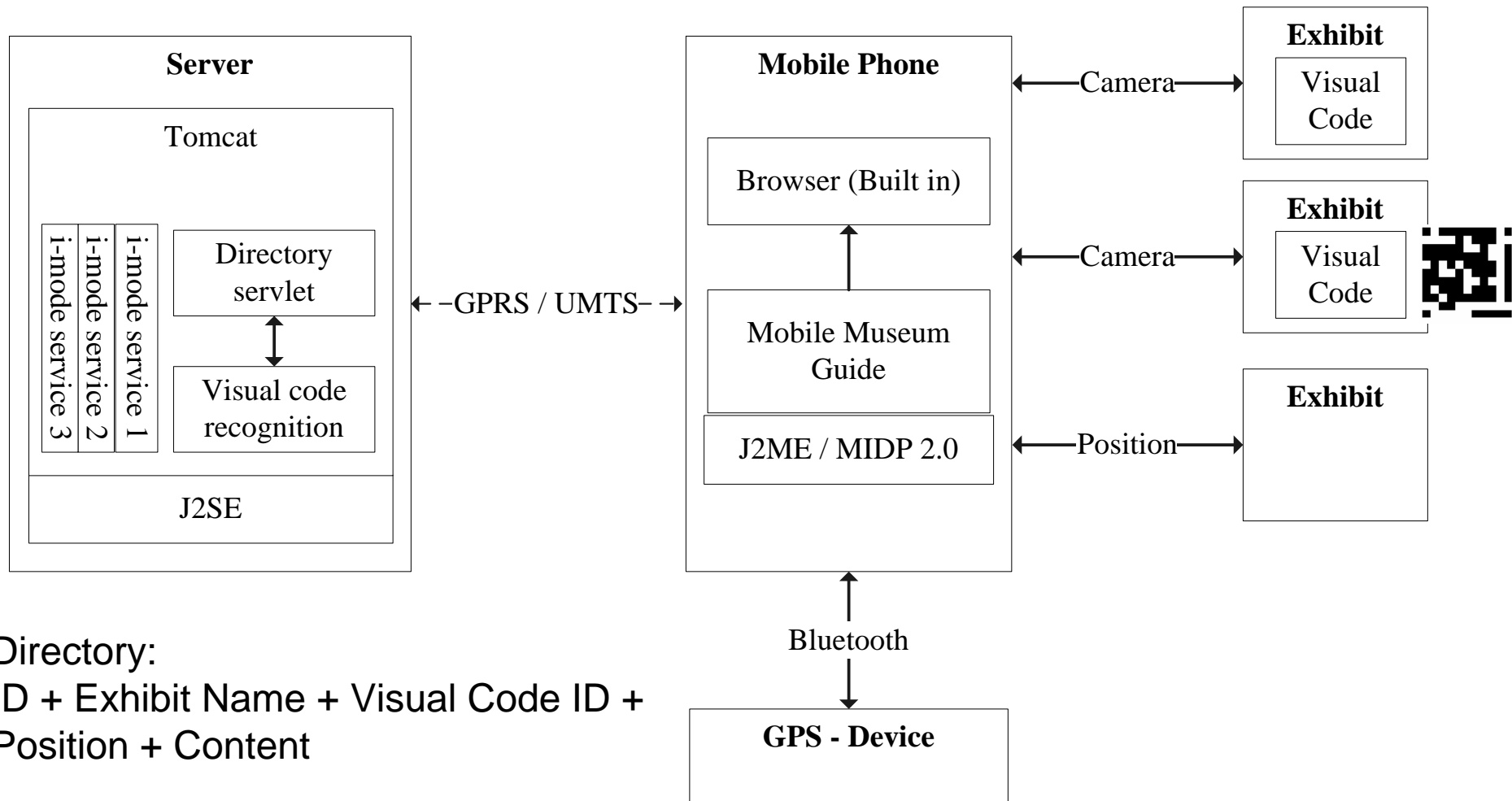
Work packages

- WP 1: Scenario
 - Description of the scenario, prototype and functionalities
 - For which exhibition / museum / park → petuepark.de ???
- WP 2: Architecture
 - Define basic architecture
 - Define communication mechanisms
- WP 3: Implementation
 - Contents for mobile guide (audio, video, structure)
 - Test the direct and indirect interaction (visual code, GPS)
 - Existing implementation
 - Implementation of the prototype based on the architecture and the scenario
- WP 4: User study
 - User study

Petuelpark ???



Architecture



Directory:
 ID + Exhibit Name + Visual Code ID +
 Position + Content

Organizational stuff

- 4 SWS
- Room for the practical course
 - 103, Amalienstraße 17
 - open during normal working times (7.30-17.00)
 - 1 key
 - 5 PCs
- Mailing lists
 - pems05@medien.ifi.lmu.de
- News (Meetings, Slides, etc.)
 - <http://www.medien.informatik.uni-muenchen.de/lehre/ss2005/pem.html>

Organizational stuff

■ Hardware

- Mobile Phones: Nokia 6600 (4x), Siemens S65 (2x), Nokia 6630 (?)
- Tablet PC (2x)
- Bluetooth sticks (5x)
- SIM-Card (O2 with 10 Mbyte GPRS, UMTS ???)



- Book: “Wireless Java: Developing with J2ME”, in Room 103

Organizational stuff

- Enrico Rukzio
 - Enrico.Rukzio@ifi.lmu.de
 - Room 206, Amalienstraße 17
- Albrecht Schmidt
 - Albrecht.Schmidt@ifi.lmu.de
 - Room 505, Amalienstraße 17
- Rainer Fink (Administrator)
 - rainer.fink@ifi.lmu.de, Room 102
- Hiwis
 - Specific technical questions: UI, storage, communication, etc.
 - Eva Vodvasky (eva@vodvasky.de)
 - Dominik Schmidt (dominik.schmidt@der-weihnacht.de)

Next meeting

- Date 18/04/05, 10.00, Room 107
- Tutorials:
 - Tutorial: Usage of Tortoise / Subversion
 - Tutorial: Developing J2ME applications
 - Introduction in the visual code API: Karin Leichtenstern
 - Introduction in the Bluetooth GPS API: Dominik Schmidt
- WP1: Scenario
 - Functionality of the prototype
 - Without thinking about technical aspects (Is this technically possible?)

Meeting 25/04/05

- Presentation:
 - project plan, detailed work packages
 - who does what and when
 - first results, WP 1: Scenario, WP 2: Architecture
- Furthermore:
 - HelloWorld, Tutorials
 - Own running application on mobile phone
 - Familiar with developing environment / SVN

Participants / Room 103

- Participants
 - Wolfgang Spiessl
 - Stefan Seitz
 - Jessica Aust
 - Michael Buschmann

- Room 103
 - Blocked time frames (every week) ???