TECHNISCHE UNIVERSITÄT DRESDEN

Department of Computer Science Institute for System Architecture, Chair for Computer Networks

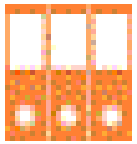
Application Development for Mobile and Ubiquitous Computing

Task 1 – Adaptive Image Viewer
Final Presentation

GroupNo. 1
Team: Robert Lübke, Daniel Esser

Application Scenario

- Task 1 – Adaptive Image Viewer for J2ME
- Main functions
  - Integration of photo sharing websites Picasa and Flickr
  - Usage of a self-developed photo service
  - Definition of the grade of adaption



Use cases

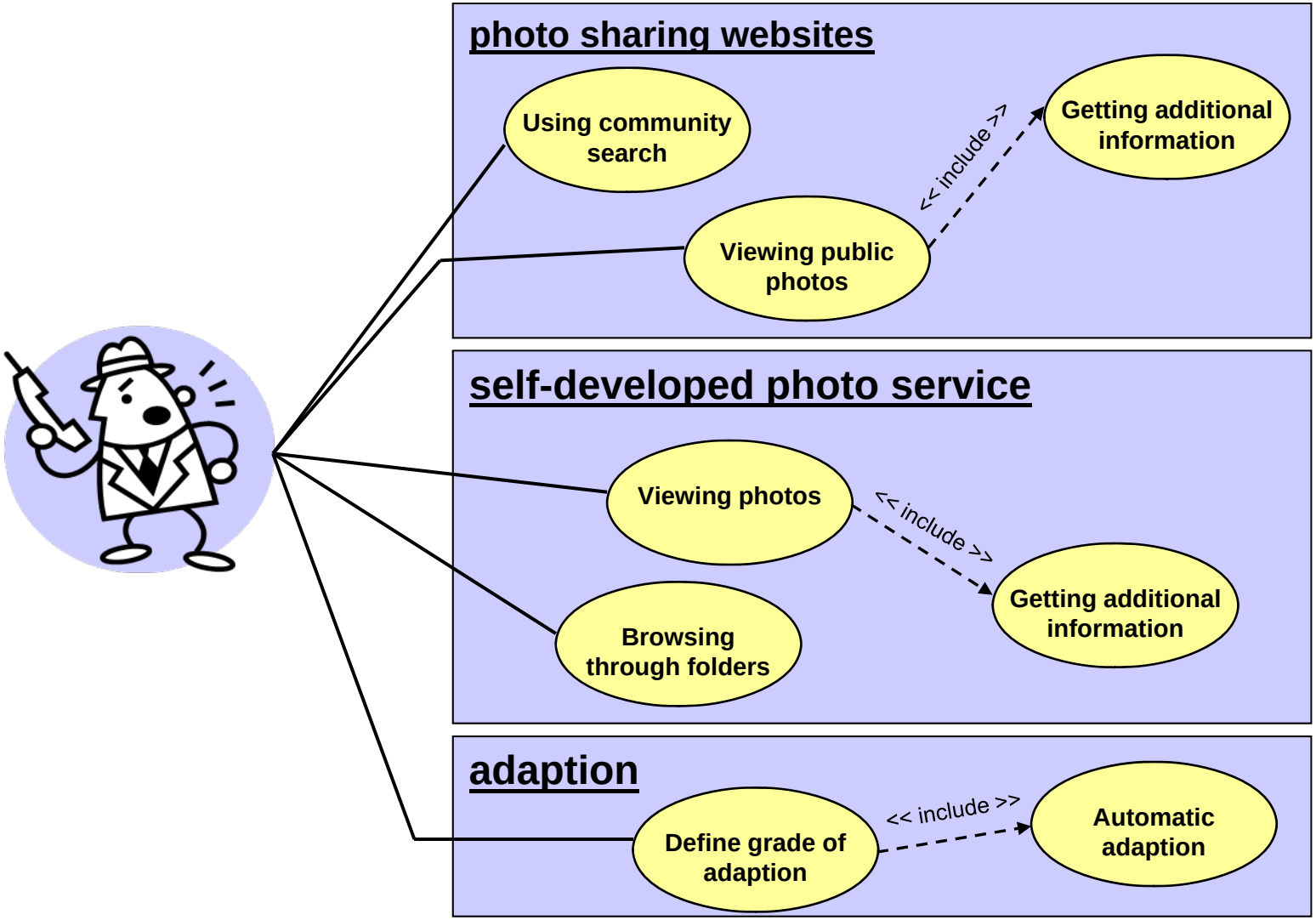
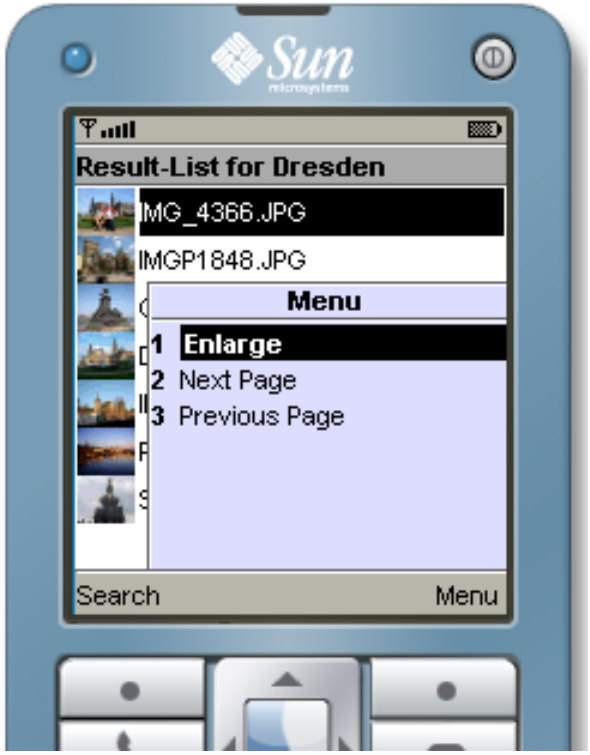
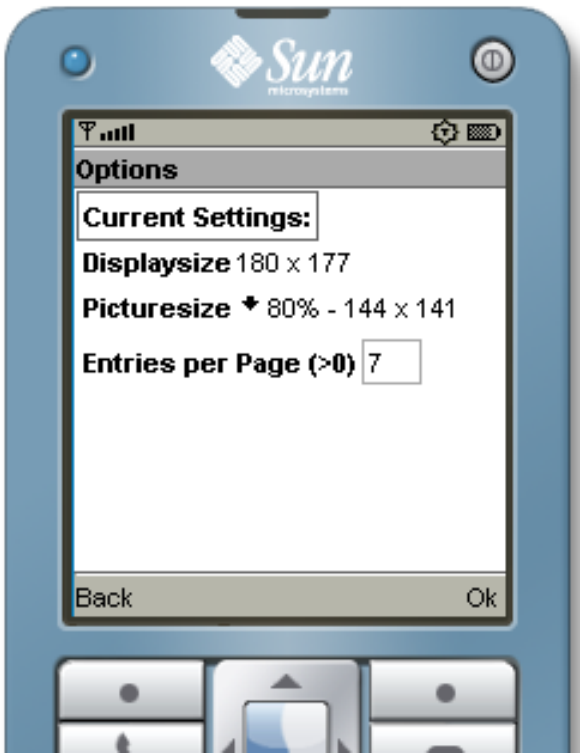


photo sharing websites
Using community search
Viewing public photos
<< include >>
Getting additional information
self-developed photo service
Viewing photos
<< include >>
Getting additional information
Browsing through folders
adaption
Define grade of adaption
<< include >>
Automatic adaption

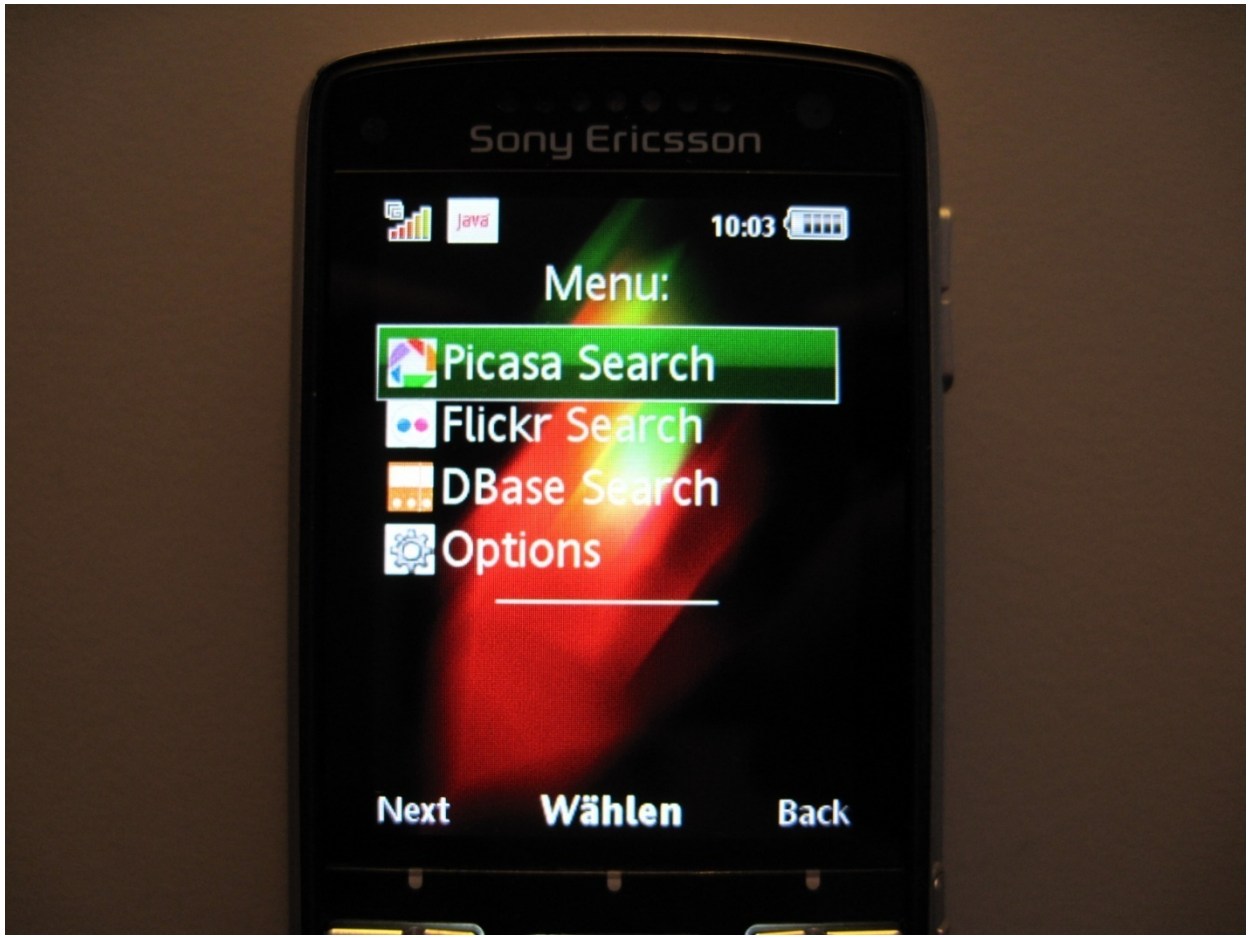
Screenshots – Photo websites



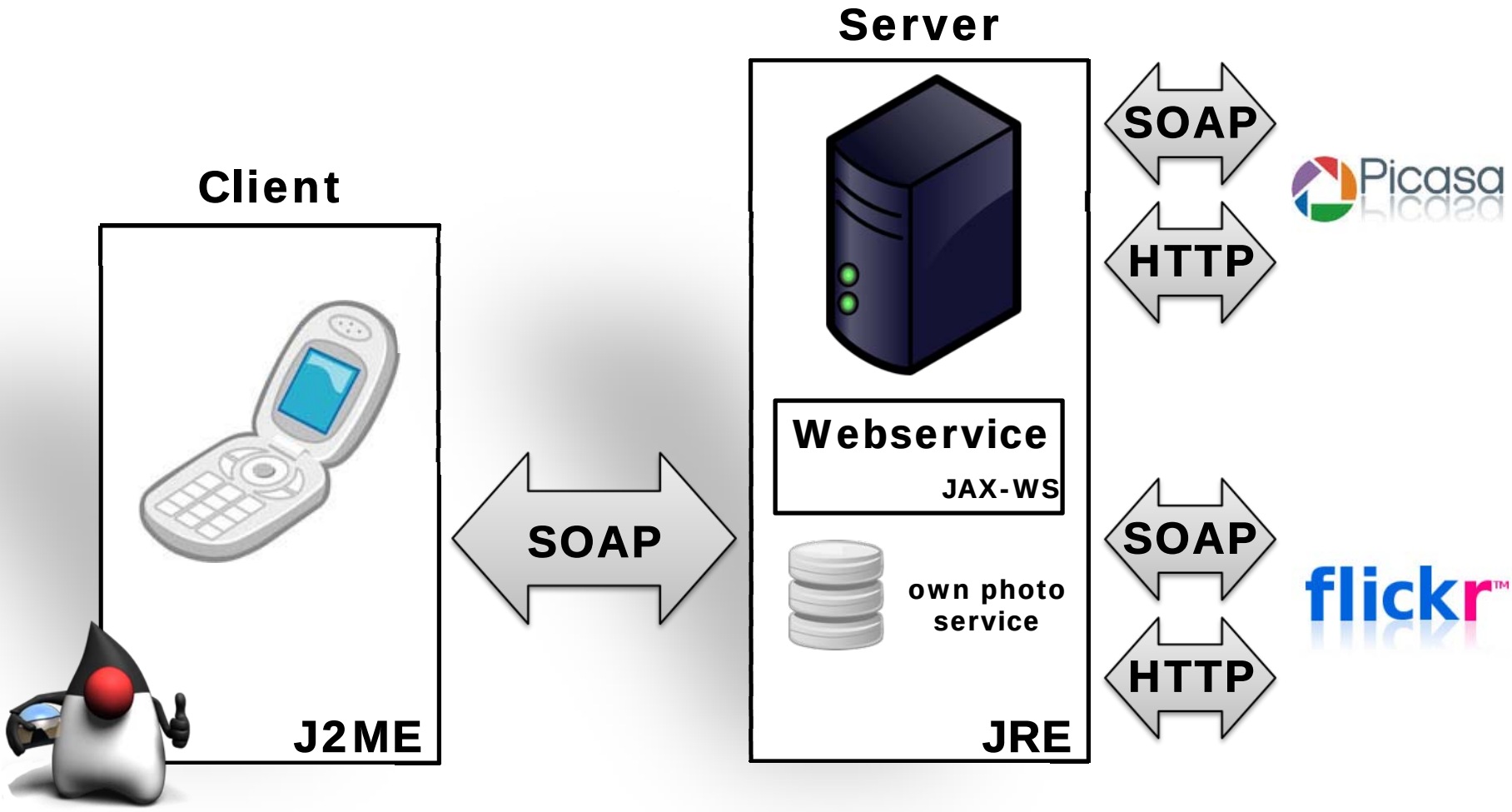
Screenshots – DBase and adaption



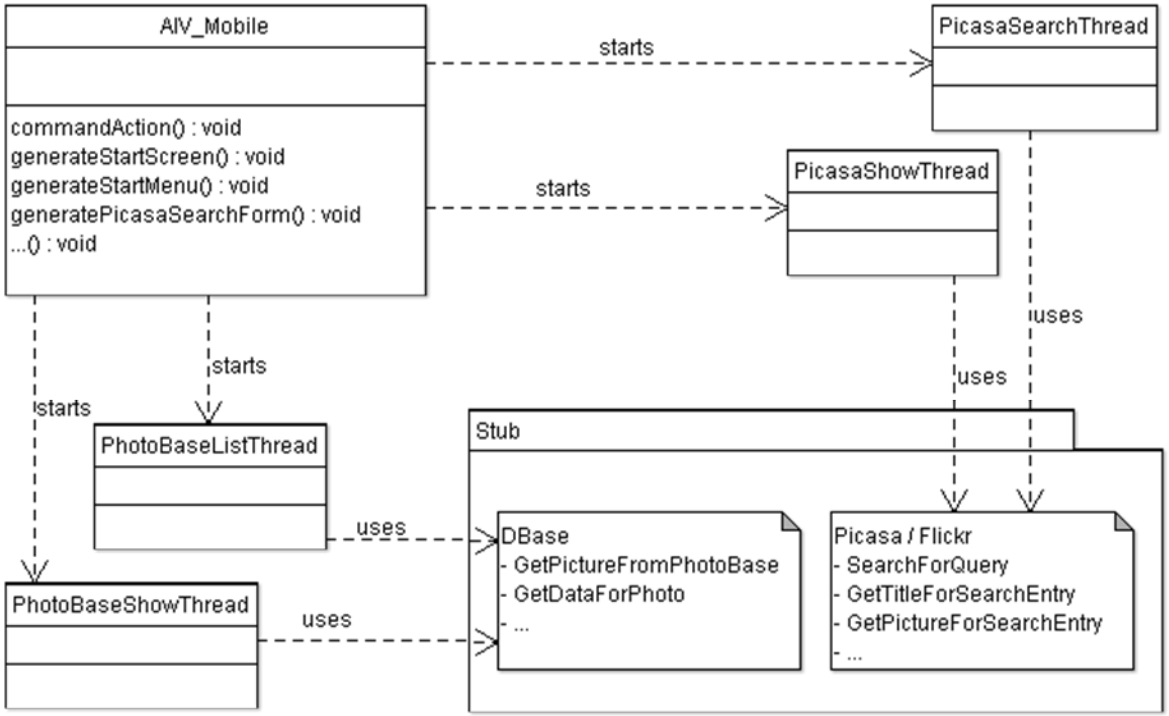
AIV on Sony Ericsson K850i



Technologies



- Main architecture of the client



Contributions and limits

- Contributions / Challenges
  - Handling of restricted devices capabilities
    - Identification of display parameters and calculating the adaption grade
    - Rescaling images according to display and user demand
    - Usage of a cache at client side
      - Traffic reduction
      - Limited disconnected operations are possible
  - Heterogeneity of software (J2ME)
  - Usability
    - Optimized content for available display
    - Easy interaction due to well-arranged forms
- Limits
  - No functionality to comment pictures
  - No support of private photo albums

Pit falls and experiences

- J2ME
  - Easy GUI programming in J2ME, but the result is not breathtaking (without using UI toolkits)
  - Not all Java SE functionalities usable (e.g. Collections)
- Webservice
  - Problem to transfer whole objects (e.g. pictures) -> need to convert to simple data types