Location-based services in public buildings

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- Joint project of Intel and University of Nizhny Novgorod

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  - Diana Ilina
  - Dmitry Shirshov

- Location-based service that allows users of mobile devices to get detailed information about indoor and outdoor environment.

- Service working name is 'List'.

Comparison

GOOGLE maps
macro-level information
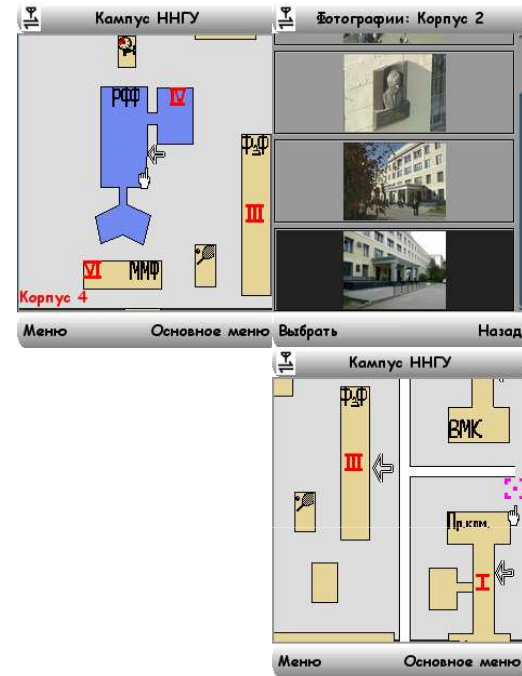city->street->building

LIST
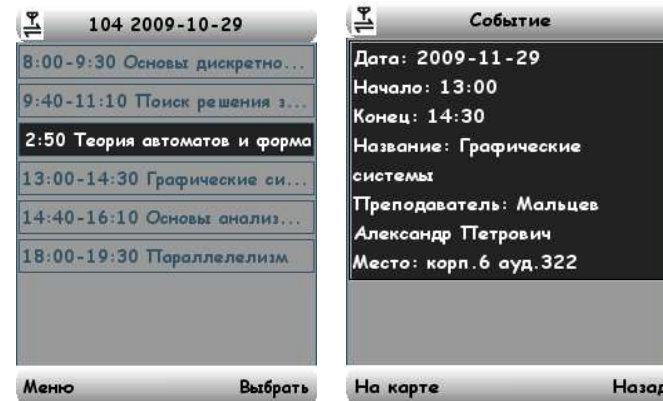micro-level information
building->floor->room
->object

Service functionality

- Basic
  - Interactive map
  - User's position on the map
  - Search
  - Information about objects

- Specific (for instance for university campus)
  - Class schedule
  - Announcements
  - Social network

Positioning techniques

- Marks (QR-codes, digital identifiers)

- Keywords
- GPS, Wi-Fi, GSM

Application areas

- University campuses
- Shopping malls
- Museums
- Airports and train stations
- Convention centers

System architecture

Search queries (XML), mark identifiers

Internet

Vector maps(XML) text, images

Ruby On Rails

J2ME client
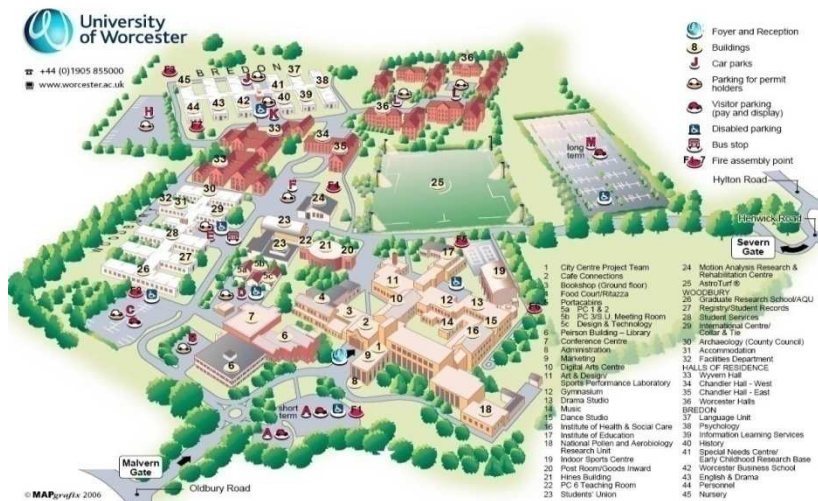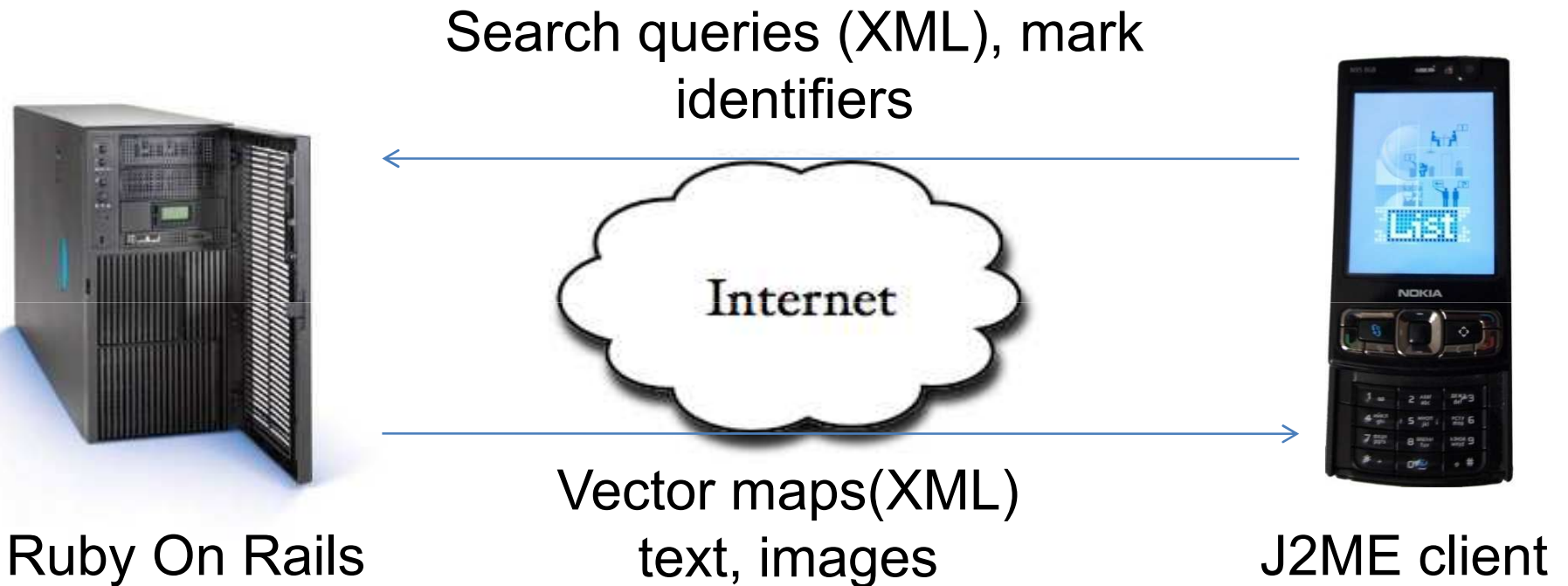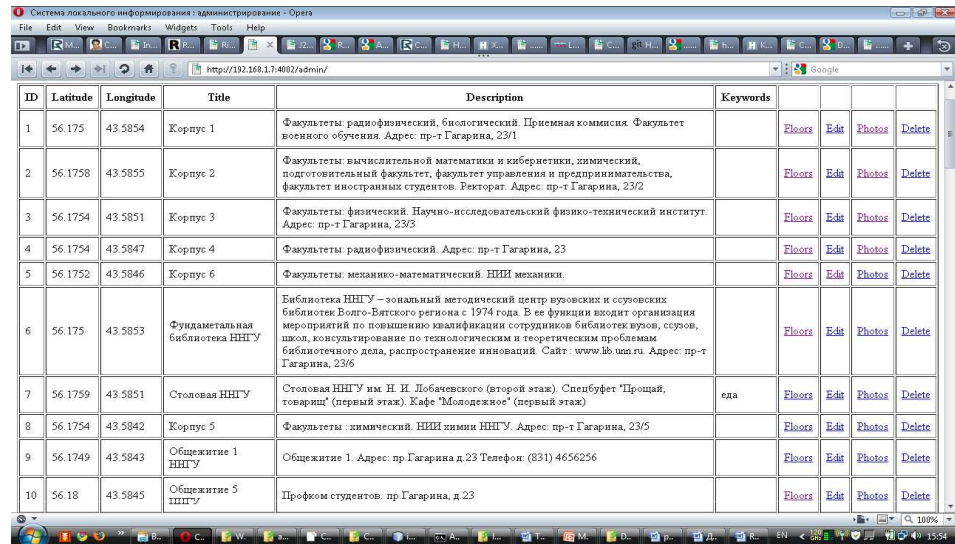
System administration

- Web interface
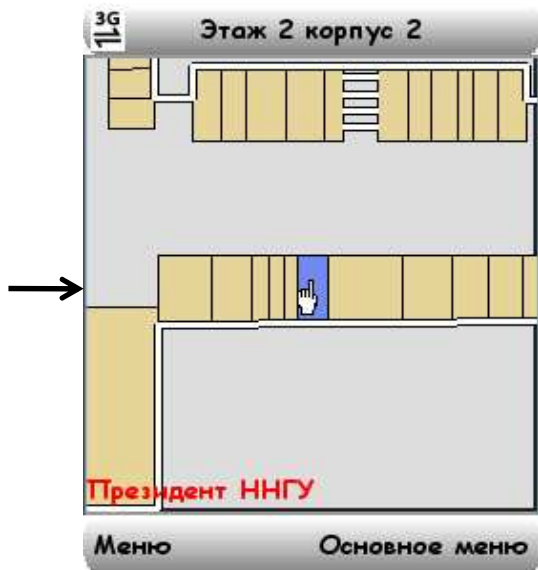 - Data editor

  - Vector map editor

Illustrations

Interactive map
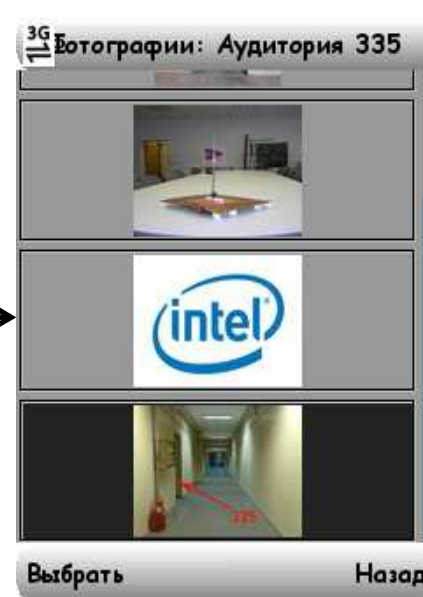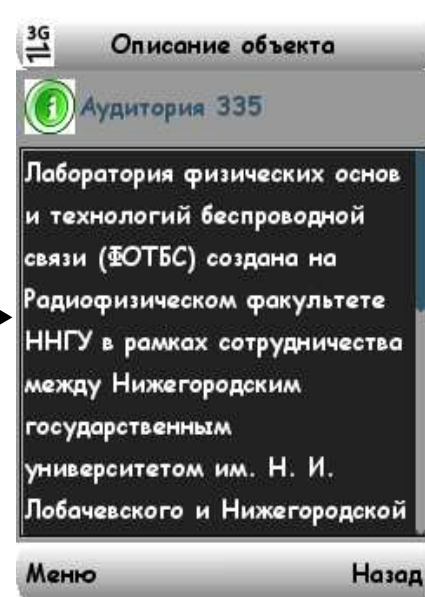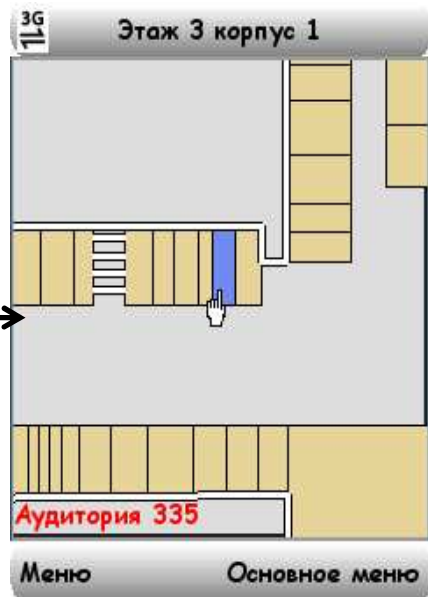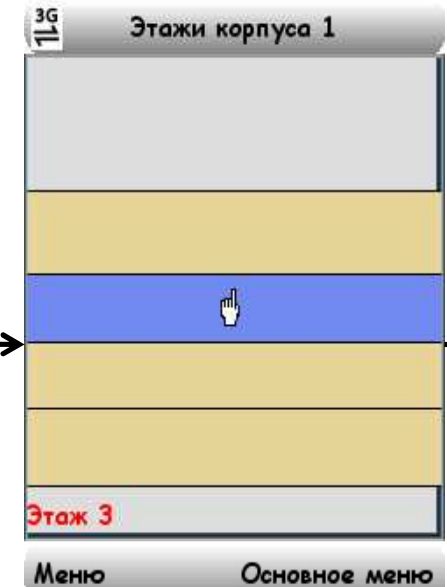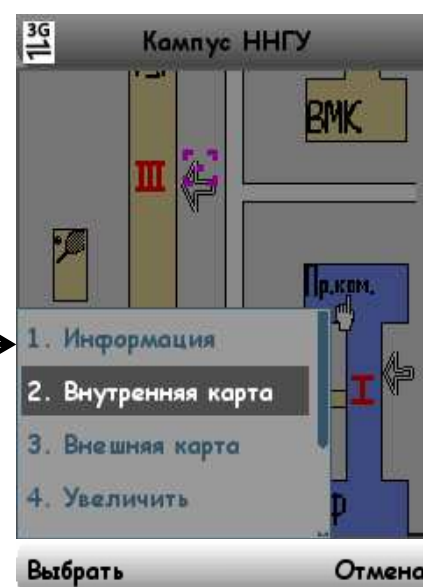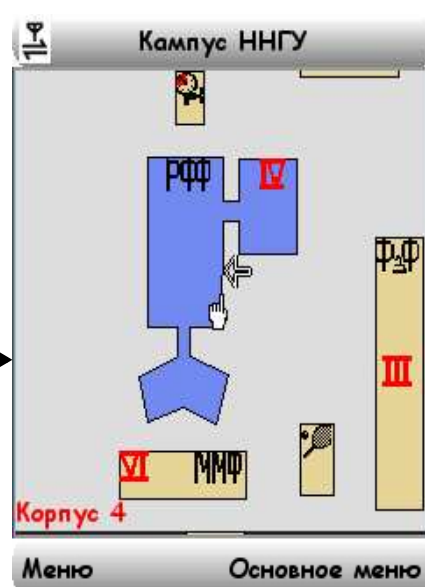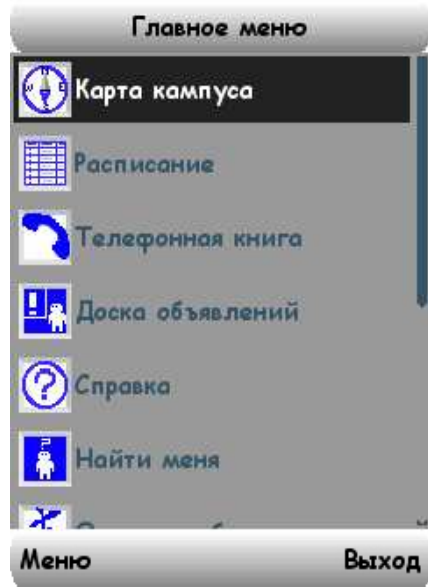
Positioning
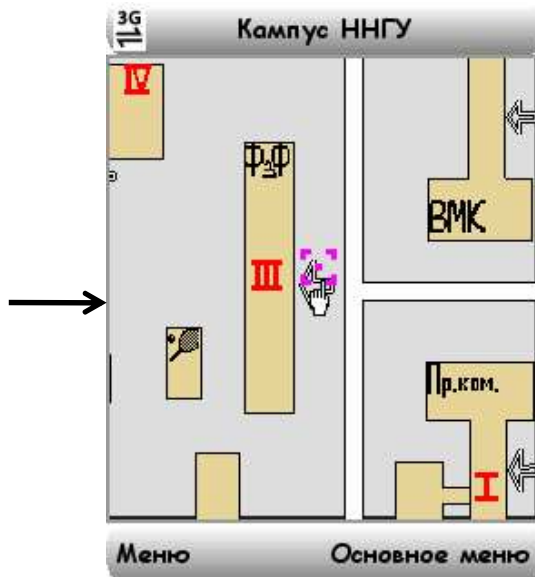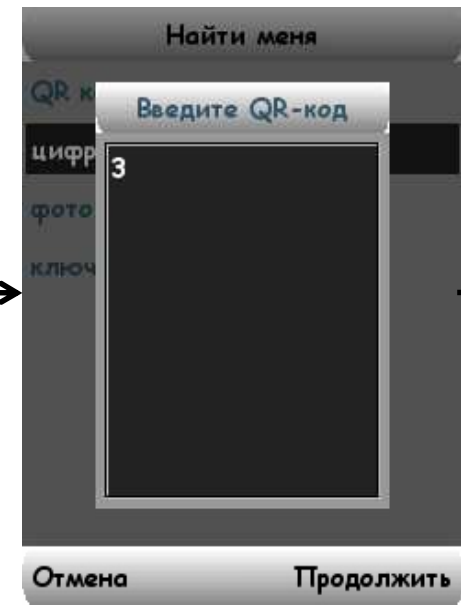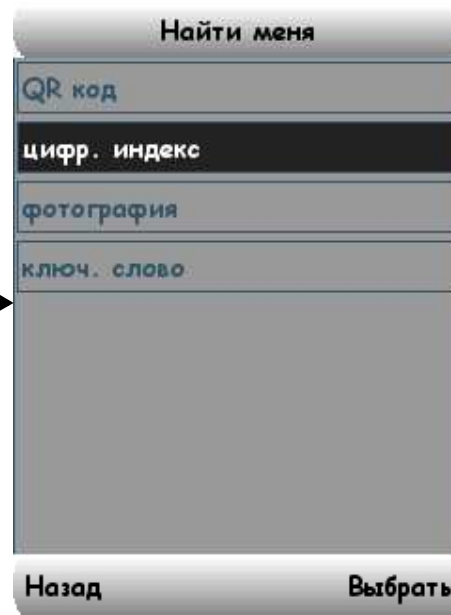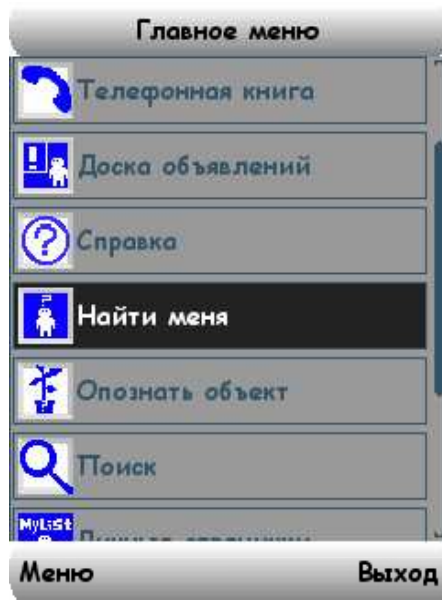
Search
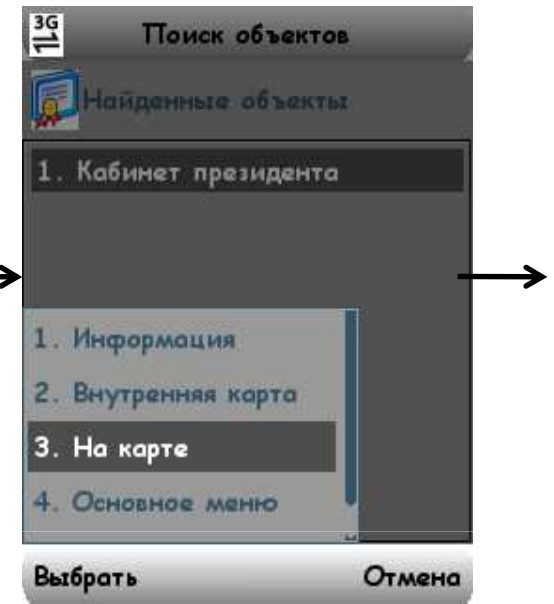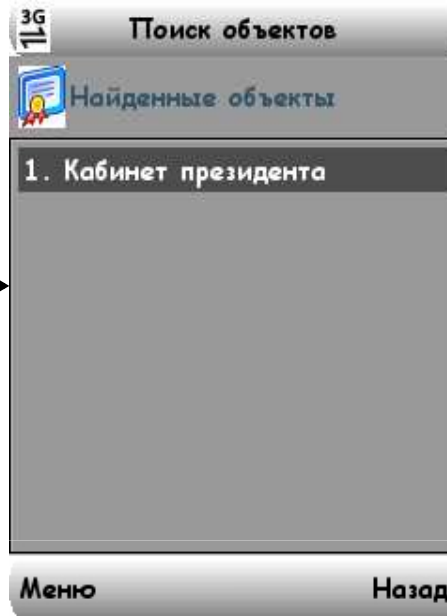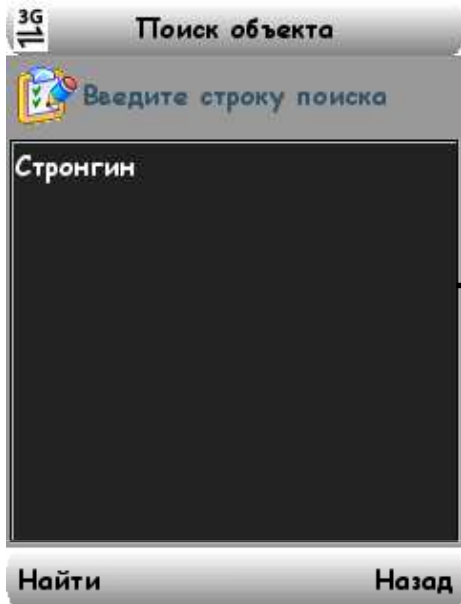
Service for the FRUCT seminar

Thank you!