Programming Android Client for Smart-M3 Applications

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Smart-M3 Application

KP 1
- SmartSlog
- Ontologies

KP 2

SIB

Smart-M3

...
Implementation tasks

**SmartSlog integration to android project**
SmartSlog is a development kit for programming Smart-M3 Knowledge Processors (KP)

**GUI for services representation**
User interface constructed by android libraries

**Smart Space interaction**
Implementation of C based application logic
Development kits

**Android SDK** for Java based GUI design

**Android NDK** for C based application logic implementation

Java Native Interface (**JNI**) is a bridge between user interface and logic
Client architecture

- **User interface** module uses Android SDK and is Java based.
- **JNI** is platform dependent.
- **Application logic** is C written and supported by Android NDK.
- **SmartSlog** supports:
  - high-level KP development
  - heterogeneous devices
Many services in SmartRoom
Many personal clients to access the services
Many mobile platforms to host the clients
Agenda service

Person Name
Title 1

Person Name
Title 2

Person Name
Title 3

Person Name
Title 4

Person Name
Title 5

Person Name
Title 6
Presentation service

Smart Room services

- conference services
- sensor services
- activity tracking services
- discussion services
Client scenario

1. Authentication ↔ Agenda
2. Agenda ↔ Services list
3. Services list ↔ Presentation
Microphone service

1. Initialization
2. Publishing address
3. Listening for connections
4. Receiving data
5. Playing audio flow
Conclusion

- Published on Google play
  https://play.google.com/store/apps/

- Project sources on sourceforge
  http://sourceforge.net/projects/smartroom/

- Project wiki
  http://oss.fruct.org/wiki/SmartRoom