## A Maemo Client for the VKontakte Social Network Service

Andrey Bogachev, Alexander Lomov, Ilia Burlak, Sergey Zakharov, Alexander Borodin, Kirill Kulakov

Petrozavodsk State University
Department of Computer Science

**AMICT, 2010** 











## Contents

- Overview
- Usage Scenarios
- Project Schedule
- Application Architecture
- Technologies
- User Interface
- Repository
- Testing
- Activity
- Conclusion

### Overview: Problem

Social networks are essential part of the Internet users life

But interacting with number of services is complicated:

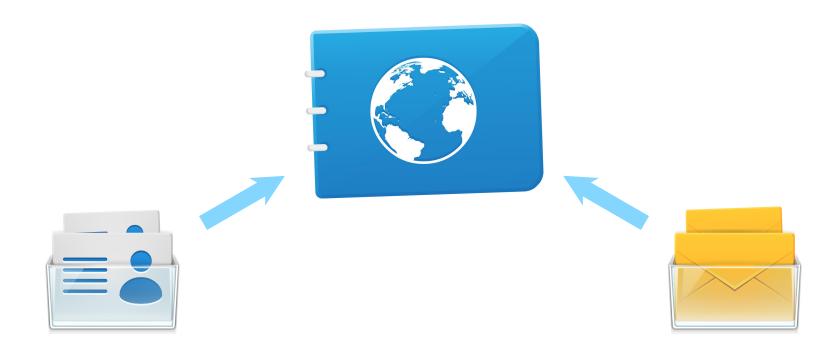
- Separated mailboxes
- Separated lists of contacts



## Overview: Solution

Our project aims at developing:

- Client that allows users to organize the content collected from social networks
- Network driver "VKontakte" that collects data from the most popular social network in Russia, Ukraine and Belarus



# **Usage Scenarios**



#### **Setting up Accounts**

- auto-detect of newly added service drivers
- fill-in login information and set options



### **Editing Profiles**

- view and edit profile details
- share details between profiles



### **Organizing Contacts**

- combine contacts from several services in one list of contacts
- view profiles and unite profiles in one contact
- sort by name, search for a friend



### Messaging

- keep messages from several services in one mailbox
- view and find messages
- write and reply messages

# Project Schedule

February - May, 2009: Requirements specification
Design of the application
Constructing test scenarios
Coding, testing, debugging

July - October, 2009: Prototype of the application (Maemo 4)
Project improvements
Additional functionality
Porting to Maemo 5
Coding, testing, debugging

November, 2009 - May, 2010: Stable version of MySocials (Maemo 5)
Hildon 2.2 User Interface
Project publishing in extras-devel
Coding, testing, debugging

# **Application Architecture**

#### Kernel

- requests redirecting
- temporary requests storage
- events dispatcher
- modules dispatcher
  - modules initialization
  - modules connection

#### **User Interface**

- GUI initialization
- kernel interaction
- events handling

#### **Database**

- database interface
  - requests processing
  - requests redirecting
- data fetching
- data storing

#### **Network Driver**

- requests processing
- service queries
- responses parsing
- responses formation







# **Technologies**

#### **User Account**

- Service ID
- Login
- Password
- Enabled
- Auto-Update

#### **Profile Information**

- Service ID
- First Name
- Last Name
- Birth date
- Address

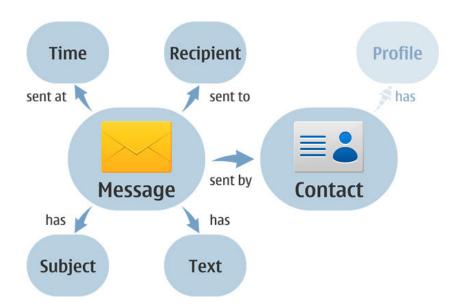
#### **Contact**

- Name
- Photo
- Profiles

### Message

- Sender
- Date and Time
- Subject
- Text

# Example

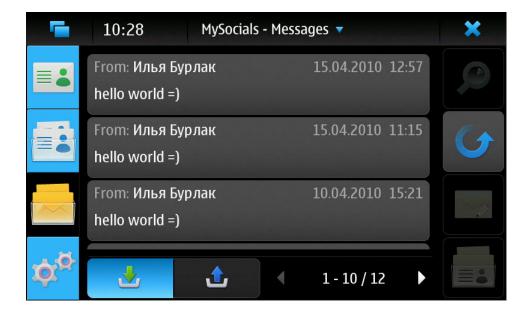


### User Interface

User Interface of the client was designed according to Human Interface Guidelines described in Maemo 5 Documentation

### Layout of the elements:

- Main window contains task navigator on the left side for switching between tasks
- Contacts and Messaging forms provide similar controls for often performed tasks



# Repository

Source code of the project is published on <a href="http://gitorious.org/mysocials">http://gitorious.org/mysocials</a>

- mysocials
- libvkontakte
- mysocials-driver-console
- qmf-vkontakte
- telepathy-vkontakte

## **Metrics**

Module	Lines of C Code	Lines of Comments
MySocials:	7524:	2690:
+ kernel	+ 1400	+ 601
+ database	+ 3454	+ 1143
+ ui	+ 2670	+ 946
libvkontakte	1523	431
mysocials-driver-console	517	97

# **Testing**

- Module Testing and Integral Testing Automated Tests (80 tests: 195 checks)
- Memory leaks and Memory usage errors (Valgrind)
- MySocials Network Driver testing system
- UI Checklist

# **Bug Management**

Bug-Tracking System allows developers and testers to keep track of bugs <a href="http://oss.fruct.org/bugzilla/buglist.cgi?product=mysocials">http://oss.fruct.org/bugzilla/buglist.cgi?product=mysocials</a>

There are currently 118 bugs registered:

- 66 closed
- 13 fixed
- 39 open

# **Activity**

- JSON libraries ported to Maemo 5
- Several errors found in "VKontakte" API
- 3 bugs reported to bugs.maemo.org
  - 9496: package in extras-devel deleted, but still on server (verified fixed)
  - 9844: SDK content not fully localized by default
  - 9912: Package assigns to the future dependencies
- Source code moved to gitorious from local repository
- Application published in Maemo extras-devel repository
- Network Driver libvkontakte will be used in QMF-VKontakte project: <a href="http://oss.fruct.org/wiki/Qmf-vkontakte">http://oss.fruct.org/wiki/Qmf-vkontakte</a>
- Telepathy-VKontakte: <a href="http://oss.fruct.org/wiki/Telepathy-vkontakte">http://oss.fruct.org/wiki/Telepathy-vkontakte</a>

## Thank You for Your Attention!



wiki: <a href="http://oss.fruct.org/wiki/Maemo-VKontakte">http://oss.fruct.org/wiki/Maemo-VKontakte</a>

package: <a href="http://maemo.org/packages/view/mysocials">http://maemo.org/packages/view/mysocials</a>