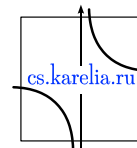


A Maemo Client for the VKontakte Social Network Service

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

Petrozavodsk State University
Department of Computer Science

7th FRUCT Conference, April, 2010
St. Peterburg, Russia



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



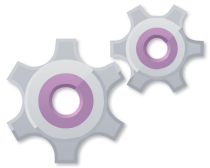
Overview: Solution

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

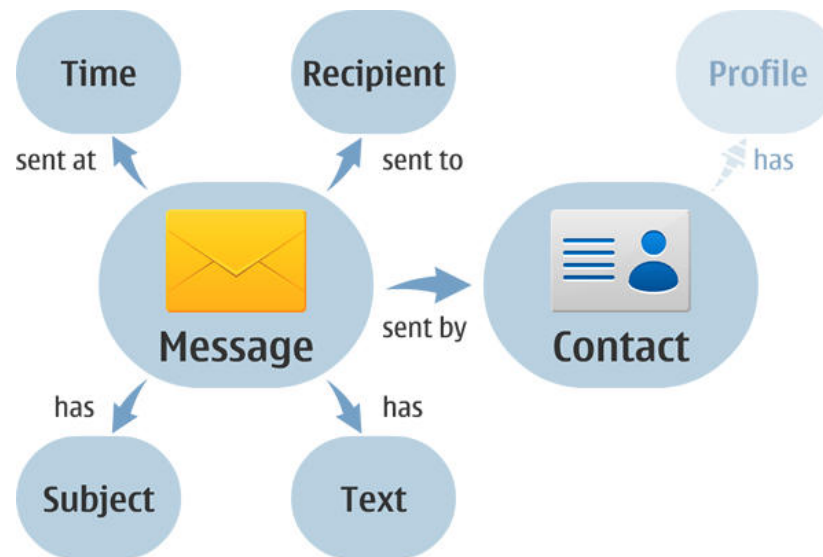
Contact

- Name
- Photo
- Profiles

Message

- Sender
- Date and Time
- Subject
- Text

Example

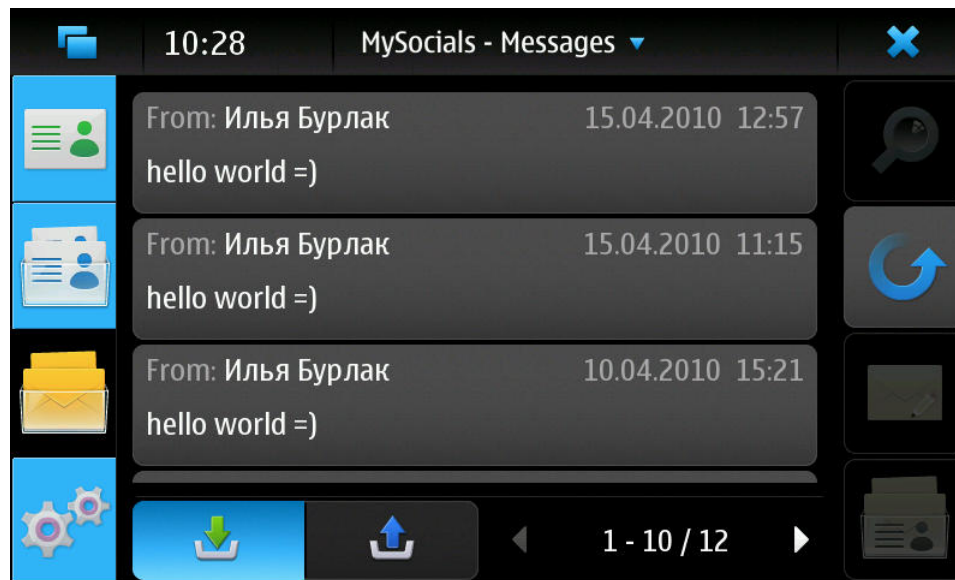


User Interface

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 <http://gitorious.org/mysocials>

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

Metrics

<i>Module</i>	<i>Lines of C Code</i>	<i>Lines of Comments</i>
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
<http://oss.fruct.org/bugzilla/buglist.cgi?product=mysocials>

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:
<http://oss.fruct.org/wiki/Qmf-vkontakte>
- Telepathy-VKontakte:
<http://oss.fruct.org/wiki/Telepathy-vkontakte>

Thank You for Your Attention!



wiki: <http://oss.fruct.org/wiki/Maemo-VKontakte>

package: <http://maemo.org/packages/view/mysocials>