

Scribo: A Livejournal Client for the Maemo 5 Platform

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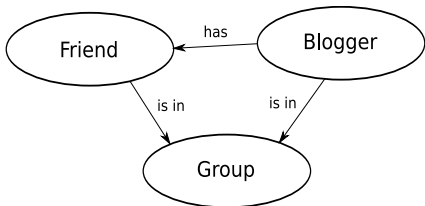
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Problem Domain

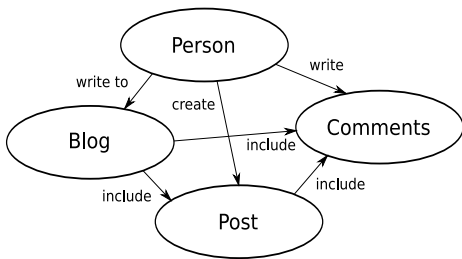


■ Person:

- ▶ **Blogger:** a person with a blog service account
- ▶ **Friend:** another blogger whose blogs the blogger reads
- ▶ **Group:** other bloggers working with the same blog in parallel

- **Post:** an initial message; it initiates the topic starting the discussion

- **Comment:** a message in response the previous one it continues the discussion



Key Features

Scribo is for active and mobile bloggers who regularly participate in one or more blogs at the services

Livejournal: > 20 m. bloggers

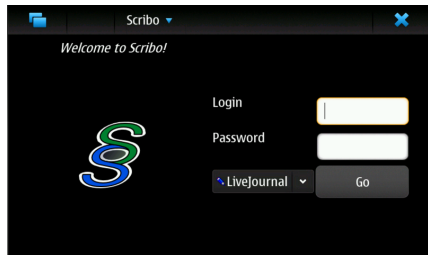
Blurty: > 1 m. bloggers

InsaneJournal: > 0.5 m. bloggers

Dreamwidth: > 0.4 m. bloggers

...

- 1 User accounts at blog services
login, read, edit, local cache
- 2 Blog postings
write, send, read, edit, delete, local cache
- 3 Cross-blogging
duplicating messages to several blogs



Reasons of using Scribo:

- Blogging with your mobile computer: laptop, netbook or N900
- GUI is simple and usable for Maemo/MeeGo-based mobile devices, in contrast to PC-oriented web-browser solutions
- Internet connection is breakable or weak (e.g. GPRS), offline mode happens often
- A simple application to manage all your blogs simultaneously
- You can access blogs of your friends

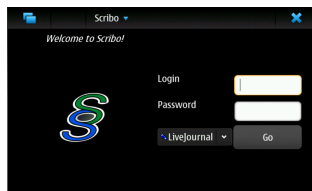
Scribo weakens the restrictions of your location, computer size/weight, network quality, and the number of blog accounts&services



Basic scenarios

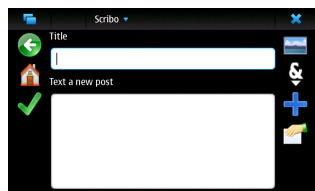
1 User profile

- ▶ several blog services
- ▶ several own user accounts at each service
- ▶ information about friends' accounts and groups

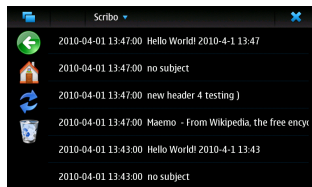


2 Postings

- ▶ read & send
- ▶ edit & delete
- ▶ duplication to several blogs (accounts)



3 More is in progress



Related work: solutions with no web-browser

FEATURES	Scribo	Mastory	Scribe	PicoBlogger	BloGTK	Drivel	LJ.net
Platform	Maemo 5, Qt	Maemo 5	Symbian S60	Symbian S60	Linux	Linux	Windows (.NET)
Blog services	LJ, Blurty, InsaneJournal, Dreamwidth	LJ, WordPress, Blogger, Drupal	WordPress	LJ, Blogger, Text America, Movable Type, Type Pad	Blogger, Movable Type, WordPress	LJ, Blogger, Movable Type, Advogato	LJ
Posts	read, send, edit, delete	read, send, edit, delete, save drafts	read, send, edit, delete	send	read, send, edit, delete, save drafts	read, send, edit	read, send, edit, delete, save drafts
Comments	n/a	in Blogger	n/a	?	?	?	?
Friends and groups	+	n/a	n/a	n/a	n/a	+	+
Cross-blogging (LJ and clones)	+	n/a	n/a	+	+	n/a	+
Local caching	+	+(posts)	?	+(posts)	+(posts)	?	?
UTF support	+	n/a	?	?	?	?	?
More	Simple HTML editor	Flickr and Picasso for images					MS Word, music detection with Winamp

?: The feature is not found in product description

... and Scribo is actively progressing



Evolution

I. Spring 2009: *Maemo 4, C, GTK*

February–March: Planning. Requirement engineering.

April–May: Designing a proof-of-the-concept prototype.
5th FRUCT seminar and AMICT'2009 workshop

II. Summer – Autumn 2009: *Maemo 4&5, C, GTK*

July–August: Refactoring the architecture. A workable prototype.

September–November: A demo LiveJournal client with user profiles and postings. 6th FRUCT seminar

III. Winter 2009 — Spring 2010: *Maemo 5, Python, PyQt/PySide*

December–February: Moving to the new platform and tools.
Functionality. Testing and debugging.

March–April: Publication of α -releases.

Cross-blogging, friends and groups, usability.
2nd Maemo and 7th FRUCT conferences



The Team

Experts:



Yury Bogoyavlesnky



Mikhail Kryshen



Timofey Turenko



Diana Zaiceva, bachelor student
project leader, GUI



Artem Mezhenin, bachelor student
Architect and coder

Aleksandr Sannikov, bachelor student
Release manager, testing



Kirill Germanov, diploma student
System tester and code analyst



Dmitry Korzun,
supervisor



Architecture

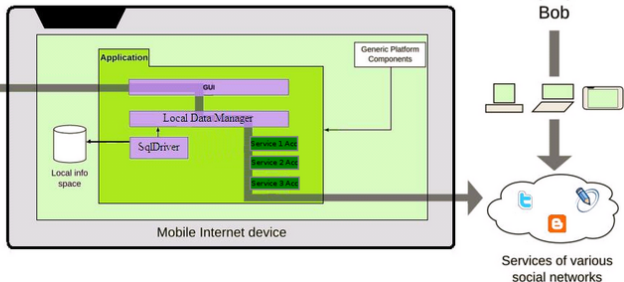
Application:

```
python
python2.5-qt4
```



GUI:

```
python2.5-qt4-webkit
python2.5-qt4-gui
```



Local Data Manager: application logic

Service: drivers (plugins) to services (e.g., XML-RPS for LiveJournal API)

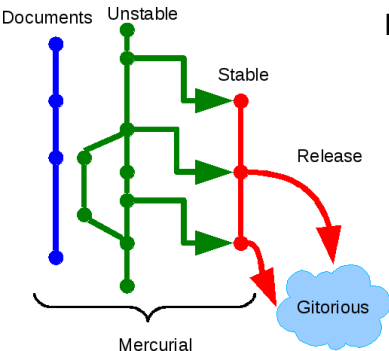
```
python-xml
```

SQL Driver: to local database of user profiles and posts (cache)

```
sqlite3
```



Repository and release publications



Repositories

- Local Mercurial repository
unstable code, docs
- Scribo-Testing repository
a complementary project
- Gitorious:

<http://gitorious.org/scribo-client>

- Maemo Extras-level:

[http://](http://maemo.org/packages/view/scribo/)

[//maemo.org/packages/view/scribo/](http://maemo.org/packages/view/scribo/)

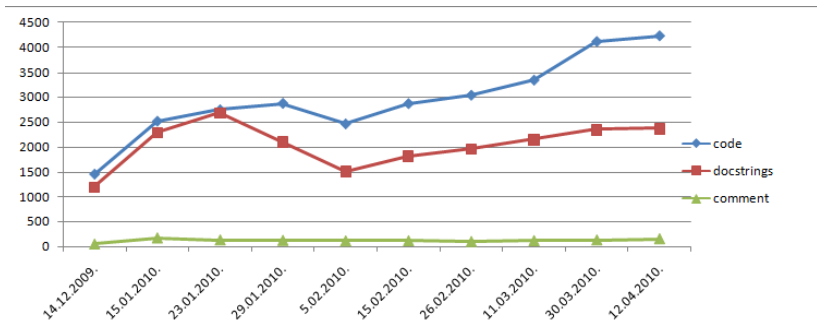
Publication scheme:

- System and unit testing, test scenarios in scratchbox
- Package building and installation on N900
- Test scenarios and GUI checks on N900
- Publication at Gitorious and Maemo Extras-level



Code metrics (for Iteration III)

- PyLint is used for regular collecting *#LOC*, *#DoxygenComments*, *#InternalComments*
- In total: 7000 LOC and 50 classes



- LOC metric shows the progress
- 29.01–15.02: refactoring and debugging
- 11.03–30.03: introducing the system test code



Testing (for Iteration III)

The complementary project “Scribo-testing” helps in finding and commenting bugs in Scribo

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

Internal testing:

- 42 unit tests for all functions
3...13 checks per unit test, 624 checks are in total
- integration tests for subsystem interfaces
in progress
- system testing
usecase scenario-based, random and priori collected data

In total, more than 100 bugs were found

<http://oss.fruct.org/bugzilla/>



Error and debug management

- Unit tests: 42 (624)
- Integration tests: planned 2-subsystem x 14-test
- System tests 40 tests in 5 modules
- Test scenarios (scratchbox and N900, developers and volunteers)
- Scribo-Testing (complementary project)

Project Bugzilla: <http://oss.fruct.org/bugzilla/>

Sev\Status	Open	Fixed	Closed	Total
Critical	0	3	2	5
Serious	4	1	2	7
Major	7	8	33	48
Minor	3	5	4	12
Trivial	4	2	2	8
Enhancement	14	12	26	52
Total	32	31	69	132



Errors in third-party products

■ Memory Leak in PySide

- ▶ http://oss.fruct.org/bugzilla/show_bug.cgi?id=93
- ▶ http://bugs.openbossa.org/show_bug.cgi?id=195

■ Segmentation fault in PySide function `deleteLater`

- ▶ http://oss.fruct.org/bugzilla/show_bug.cgi?id=95
- ▶ http://bugs.openbossa.org/show_bug.cgi?id=191

■ Broken dependences in `python2.5-qt4-webkit` package

- ▶ http://oss.fruct.org/bugzilla/show_bug.cgi?id=248
- ▶ <http://garage.maemo.org/tracker/index.php?aid=5546>



Current state:

α-releases, testing&debugging, adding new features

- Scribo project wiki:
<http://oss.fruct.org/wiki/Maemo-Blogs>
- Testing project wiki:
<http://oss.fruct.org/wiki/Maemo-Blogs-testing>
- Open source: <http://gitorious.org/scribo-client>
- Installation: <http://maemo.org/packages/view/scribo>
- Forum: fruct.org/forum

Please, send your comments to maemo-scribo@cs.karelia.ru
and bugs to <http://oss.fruct.org/bugzilla/>

Thank you

