

# Porting the WidSets Technology to the Maemo Platform

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# WidSets

Provide stable implementation of WidSets for the Maemo Platform.

- Over 1 million of users
- A lot of existing widgets
- Ability to create new widgets
- Easy for use

WidSets - easy way to extend your Maemo desktop.



# Main Requirements

- Integration in the Maemo Desktop.
  - ▶ Develop the integration layer.
  - ▶ Optimize the user interface for the tablet screen.
- Stability
- Safety
- Performance



# Project Organization

## Team

- Mikhail Kryshen - Manager, Instructor
- Stanislav Epifanov - Assistant Manager, 3rd year student
- Alexander Sannikov - 3rd year student
- Dmitriy Sidorov - Secretary, 3rd year student
- Lev Terentev - 1st year student
- Kirill Ivashov - 3rd year student

## Timing and Deliverables

- 02.09 Meeting with instructor, project planning, analysis of WidSets porting and integration possibilities. Requirement modeling and specification.
- 03.09 Design the project architecture.
- 04.09 Coding, testing.
- 05.09 Testing, debugging. Attestation. Final presentation.



## Web Resources

### Russian Maemo Community

<http://maemo.cs.karelia.ru/>

### Project wiki

<http://maemo.cs.karelia.ru/wiki/Maemo-WidSets>



# WidSets for Maemo

- 1 Porting the WidSets:
  - ▶ GCJ java-to-native code compiler, MIDPath (MIDP2 implementation).
  - ▶ Jalimo virtual machine and MIDPath.
- 2 New compatible version of WidSets implemented in C/C++: hard to implement, WidSets scripting language is based on Java.

Porting the WidSets using GCJ compiler is the preferred way..



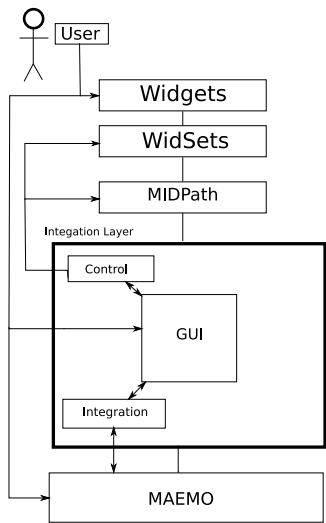
# Tools

- The GNU Compiler for Java (GCJ or gcj), a free software compiler for the Java programming language, forms part of the GNU Compiler Collection
- ProGuard is a free Java class file shrinker, optimizer, obfuscator, and preverifier
- MIDPath is a Java library which provides a MIDP2 implementation on top of various graphical libraries and audio libraries





# Architecture model



- 1 WidSets - Nokia WidSets client
- 2 MIDPath - MIDPath library
- 3 Integation - providing of integration to the Maemo platform
- 4 Control - pointer and joystic support
- 5 GUI - User Inerface for cominication with another modules.



# UI Model



- 1 Workspace.
- 2 "Select Widget" bar.
- 3 "Add widget" button.
- 4 Random Widget.
- 5 "Settings" button.
- 6 "Add widget to Maemo desktop" button.
- 7 "Fullscreen mode" button.



# Results and Future Plans

## Current Results:

- Designed the user interface and architecture of the Maemo–WidSets integration layer.
- Found and partially fixed incompatibilities between GCJ and WidSets bytecode.

## Plans:

- Fix compatibility problems between GCJ, WidSets, MIDPath and Maemo.
- Implement the Maemo–WidSets integration layer.



# Thanks

Thank You for your attention!

