10/5/2012

SPANG TEST REPORT

Version 1.0 | Spang

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1 Introduction

1.1 Purpose of API

Spang is an API which is intended to enable and simplify the communication of sensor data between an android device and a computer.

2 Test environment

- A wireless network that doesn't block UDP-messages that both computer and phone are connected to.

2.1 Hardware environment

- One computer running Windows, connected to the network mentioned above.
- One phone running Android, connected to the same network (an emulator running on the host computer would also work, if connected to the IP address "10.0.2.2")

2.2 Software environment

PC program (Release/Final/Spang-PC/Spang-PC_C-sharp.exe).

Android app (installed by running "Release/Final/Spang-mobile.apk" on an android device).

3 System information

3.1 System version (what version of your software is tested in this document)

The version used is that of the final day of the official software development (2012-10-22)

4 Known bugs and limitations

- The buttons in the shortcut view sometimes gets placed with a down offset for no apparent reason.
- Sometimes crashes if the PC application is shut down.
- The connection crashes if the reconnect dialog button is pressed *and* the network is lagging *and* the user presses back twice *and* the network manage to connect after the user has gone back to the previous screen.
- The reconnect dialog disappears if the device orientation is changed.

5 Test specification

Acceptance test for user stories can be found in the sprint backlog PDF for each sprint.

6 Automatic test

6.1 Code coverage

We value features in the API greater than code coverage, but coverage of about 40% in our core library is good. In order to test this, we use the Emma plugin for Eclipse.

6.2 Nightly builds

N/A

6.3 Unit test

As for the API, everything except the *network* and *sensors* packages. This since we couldn't find any good way to unit test that kind of android services in the limited time we had and felt that our time could be focused on better things. Those packages have instead been thoroughly integration tested.

Still, the Spang core library (the API) has, at the time of this writing, test code coverage of 43.6% according to the Emma Eclipse plugin.

Spang-mobile, the android application showing the usage of our Spang API is not as thoroughly tested, since testing android code is harder and since this application is not our main priority.

We really tried to test the GUI with Robotium (as well as android jUnit), but we felt that the point of doing an automatic test has to be that it is faster and easier than doing it manually. However, the android emulator was often so slow (if it launched at all) that the testing timed out before the test started.

7 Test report

(tested on the final release)

Test id	Result	Comment
sto25	The computer page scrolls when two fingers are swiped vertically	
sto10	A right-click is made on the computer.	
sto9	A left-click is made on the computer.	
sto8	The mouse pointer moves.	
sto5	The PC can receive messages from the phone	
sto18	Doesn't work	The application no longer supports this
sto16	Input is received from both connected phones.	
sto35	App asks if user wants to try to reconnect.	
sto12	The same key is pressed on the PC when an arbitrary key is pushed on the android,	