



libsensorj
0.0.1-SNAPSHOT

Sonar way
2014-11-05



Table of contents

1. libsensorj

Page 1

- 1.1. Report Overview
- 1.2. Violations Analysis
- 1.3. Violations Details

1. libsensorj

This chapter presents an overview of the project measures. This dashboard shows the most important measures related to project quality, and it provides a good starting point for identifying problems in source code.

1.1. Report Overview

Static Analysis

Lines of code

2,700



7 packages

55 classes

106 methods

1.3% duplicated lines

Comments

35.4%

1,477 comment lines

Complexity

2.8

5.5 /class

300 decision points

Dynamic Analysis

Code Coverage

0.0%

0 tests

Test Success

N/A

N/A failures

N/A errors

Coding Rules Violations

Rules Compliance

76.0%



Violations

310



1.2. Violations Analysis

Most violated rules	
Avoid commented-out lines of code	52
Utility classes should not have a public constructor	37
Insufficient branch coverage by unit tests	25
Octal values should not be used	17
Local variable and method parameter names should comply with a naming convention	13

Most violated files	
WiringPiSPIExample	39
PCA9685GpioServoExample	29
StepperMotorGpioExample	22
WiringPiLcdExample	21
LcdExample	18

Most complex files	
PCA9685GpioServoExample	79
DHT11Temperature	25
I2CWiiMotionPlusExample	16
PiFaceExample	12
WiringPiGpioInterruptExample2	11

Most duplicated files	
WiringPiGpioInterruptExample2	48
WiringPiSPIExample	11
Example	11

1.3. Violations Details

Rule	Avoid commented-out lines of code	
File	Line	
TemperatureSensorFactory	23, 13	
UltrasonicRangeFinderFactory	13, 23	
DHT11Humidity	41	
DHT11Temperature	62	
UltrasonicHcsr04	53	
BlinkGpioExample	18	
BlinkTriggerGpioExample	18	
ControlGpioExample	18	
CylonGpioExample	18	
FrequencyGpioExample	18	
I2CWiiMotionPlusExample	89, 150, 95, 16	
LcdExample	16	
ListenGpioExample	18	
ListenMultipleGpioExample	18	

MCP23017GpioExample	16
MCP23S17GpioExample	16
MCP4725GpioExample	16
MultipurposePinGpioExample	16
OlimexGpioExample	16
OutputHiGpioExample	18
PCA9685GpioExample	16
PCA9685GpioServoExample	16
PCF8574GpioExample	16
PiFaceExample	16
PiFaceGpioExample	16
RPIServoBlasterExample	16
SerialExample	116, 18
ShutdownGpioExample	18
StepperMotorGpioExample	16
SystemInfoExample	18
TriggerGpioExample	18
WiringPiGpioExample	16
WiringPiGpioInterruptExample	79, 16
WiringPiGpioInterruptExample2	16
WiringPiLcdExample	85, 16
WiringPiSPIExample	111, 16
WiringPiSerialExample	16
WiringPiSoftPWMExample	16
example	98, 89, 16
DHT11Temperature	130
UltrasonicHcsr04	69
TemperatureSensorFactory	13, 23
UltrasonicRangeFinderFactory	23, 13
DHT11Humidity	41
DHT11Temperature	62, 130
UltrasonicHcsr04	53, 69
TemperatureSensorFactory	23, 13
UltrasonicRangeFinderFactory	23, 13
DHT11Humidity	41
DHT11Temperature	132, 62
UltrasonicHcsr04	53, 69
Example	88, 16, 97

Rule	Utility classes should not have a public constructor	
File		Line

DHT11TemperatureExample	7
UltrasonicRangeFinderExample	11
BlinkGpioExample	50
BlinkTriggerGpioExample	51
ControlGpioExample	47
CylonGpioExample	47
FrequencyGpioExample	47
I2CWiiMotionPlusExample	43
LcdExample	46
ListenGpioExample	49
ListenMultipleGpioExample	49
MCP23017GpioExample	67
MCP23S17GpioExample	67
MCP4725GpioExample	59
MultipurposePinGpioExample	47
MyExample	3
OlimexGpioExample	70
OutputHiGpioExample	50
PCA9685GpioExample	63
PCF8574GpioExample	65
PiFaceExample	53
PiFaceGpioExample	65
RPIServoBlasterExample	33
SerialExample	49
ShutdownGpioExample	48
StepperMotorGpioExample	46
SystemInfoExample	47
TriggerGpioExample	55
UsageGpioExample	53
WiringPiGpioExample	35
WiringPiGpioInterruptExample	38
WiringPiGpioInterruptExample2	36
WiringPiLcdExample	39
WiringPiSPIExample	35
WiringPiSerialExample	34
WiringPiSoftPWMEExample	32
example	35
Example	35

Rule	Insufficient branch coverage by unit tests
File	Line

DHT11Temperature	N/A
UltrasonicHcsr04	N/A
BlinkGpioExample	N/A
CylonGpioExample	N/A
I2CWiiMotionPlusExample	N/A
LcdExample	N/A
MCP23017GpioExample	N/A
MCP23S17GpioExample	N/A
MCP4725GpioExample	N/A
OlimexGpioExample	N/A
PCA9685GpioExample	N/A
PCA9685GpioServoExample	N/A
PCF8574GpioExample	N/A
PiFaceExample	N/A
PiFaceGpioExample	N/A
RPiServoBlasterExample	N/A
SystemInfoExample	N/A
WiringPiGpioExample	N/A
WiringPiGpioInterruptExample	N/A
WiringPiGpioInterruptExample2	N/A
WiringPiLcdExample	N/A
WiringPiSPIExample	N/A
WiringPiSerialExample	N/A
WiringPiSoftPWMSample	N/A
example	N/A
DHT11Temperature	N/A
UltrasonicHcsr04	N/A
DHT11Temperature	N/A
UltrasonicHcsr04	N/A
Example	N/A

Rule	Octal values should not be used
File	Line
StepperMotorGpioExample	83, 105, 84, 110, 111, 93, 81, 96, 108, 107, 109, 95, 82, 106, 112, 94
WiringPiSPIExample	136

Rule	Local variable and method parameter names should comply with a naming convention	
File	Line	
StepperMotorGpioExample	104, 92, 80	
WiringPiSPIExample	71, 70, 76, 77, 72, 73, 79, 78, 74, 75	

Rule	Generic exceptions Error, RuntimeException, Throwable and Exception should never be thrown	
File	Line	
I2CWiiMotionPlusExample	51, 160	
MCP4725GpioExample	64	
PCA9685GpioExample	73	
PCA9685GpioServoExample	408, 143, 63	
RPiServoBlasterExample	35	
TriggerGpioExample	107	
DHT11Temperature	103	

Rule	Public methods should throw at most one checked exception	
File	Line	
MCP23017GpioExample	72	
MCP23S17GpioExample	72	
PCF8574GpioExample	70	
PiFaceExample	60	
PiFaceGpioExample	70	
SystemInfoExample	52	
WiringPiLcdExample	48	

Rule	Avoid too complex method	
File	Line	
PCA9685GpioServoExample	63, 218	
PiFaceExample	60	
WiringPiGpioInterruptExample2	41	

Rule	Duplicated blocks	
File	Line	
WiringPiGpioInterruptExample2	N/A	

WiringPiSPIExample	N/A
example	N/A
Example	N/A

Rule	Class variable fields should not have public accessibility	
File	Line	
I2CWiiMotionPlusExample	189, 188, 190	
WiringPiSPIExample	38, 39	
example	42, 41	