Sonar

Continuous Inspection of Code Quality

About Me

I'm Programmer

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FICO™

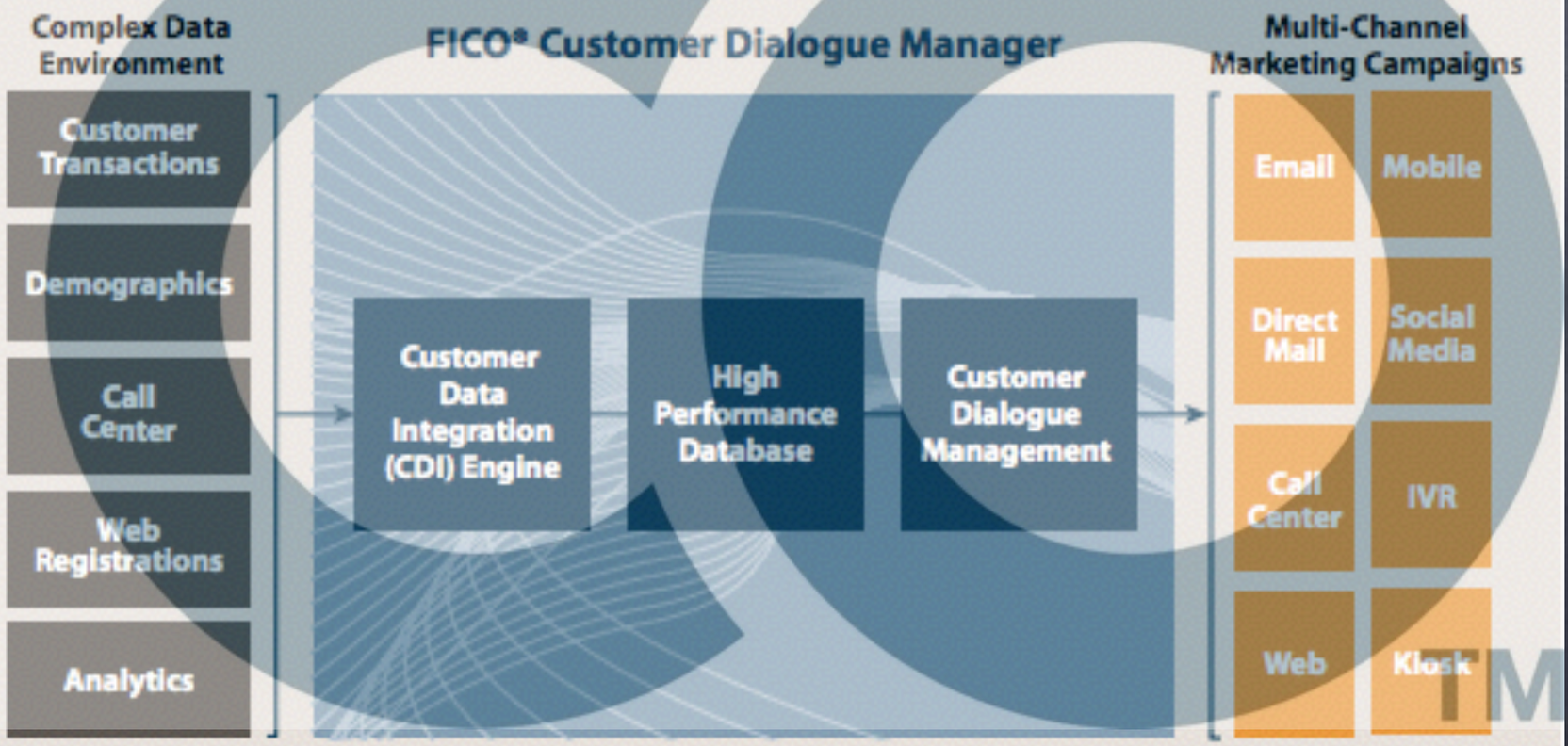
FICO® Customer Dialogue Manager

marketing

Engage customers more effectively across all channels

The proliferation of marketing channels, digital and traditional, poses a twofold challenge for marketers: how to integrate and effectively apply vast amounts of customer data coming through multiple channels, and how to engage customers profitably across those channels. FICO® Customer Dialogue Manager solves both challenges, enabling marketers to plan, execute and manage multi-channel campaigns that are precisely targeted to individual customers based on their interactions, needs and preferences. As a result, marketers can better focus their budgets on initiatives with a higher likelihood of success, leading to improved profitability.

Conduct integrated, multi-channel campaigns that motivate customers to engage



FICO® Customer Dialogue Manager is a software-as-a-service (SaaS) campaign management application that enables you to interact with customers in a coordinated fashion across channels, including social media. By encouraging individual customer dialogue, you learn more about what the customer wants, which leads to increased sales and marketing ROI.

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CDN

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JOBS OFFER
Java Engineer I

FICO

Who we are

FICO is a public company that provides analytics and decision making services — including credit scoring —intended to help financial services companies make complex, high-volume decisions. 90 of the top 100 largest U.S. financial institutions use the FICO Score to make consumer credit decisions.

Responsibilities

Java Software Engineer: review requirements, estimate effort for tasks, build unit test, implement and code requirements, support QA.

Skills & Knowledge

- Smart and Motivated
- Programming knowledge in JAVA
- Web programming skill in JSP
- Database knowledge in MySQL
- Web design Knowledge in CSS/HTML
- A strong understanding of the SQL language.

Advantages

- 2 Bonus Schemes –1 individual performance related and 1 team performance related
- Extensive dental & medical benefits and Accident & life insurance
- 15 annual leave
- Structured career paths
- Financial support for staff to study for masters degrees
- Social activities and team events
- Providence fund

ONLY
English application will be considered

Send your resume to
E-mail: careers@fico.com

Fair Isaac (Thailand) Co. Limited 211 Asoke Towers, Sukhumvit 21 (Asoke) Rd., Klongtoey Nue, Wattana Bangkok, 10110
Tel Office Thailand: +662-664-2215

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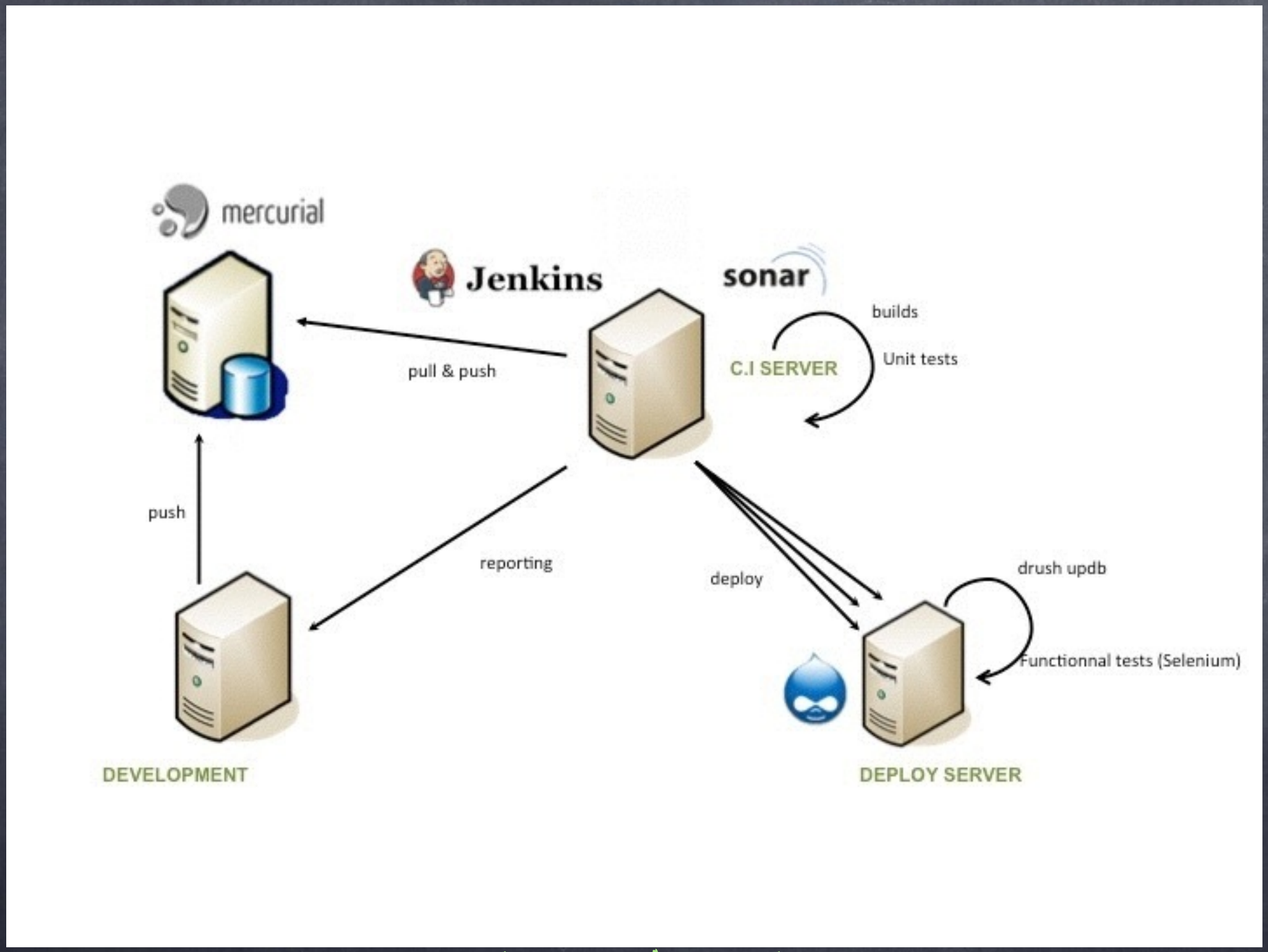
CI



http://atouchard.github.io/drupal-continuous-integration/

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Code Quality

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The 7 axes of code quality

- Coding Rules
- Architecture Design
- Unit Tests Coverage
- Duplicated Code
- Potential Bugs
- Complexity
- Comment

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What is Sonar?

"Sonar is the central place to manage code quality, offering visual reporting on and across projects and enabling to replay the past to follow metrics evolution"

source: http://www.sonarsource.org/

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SonarSource
(commercial)

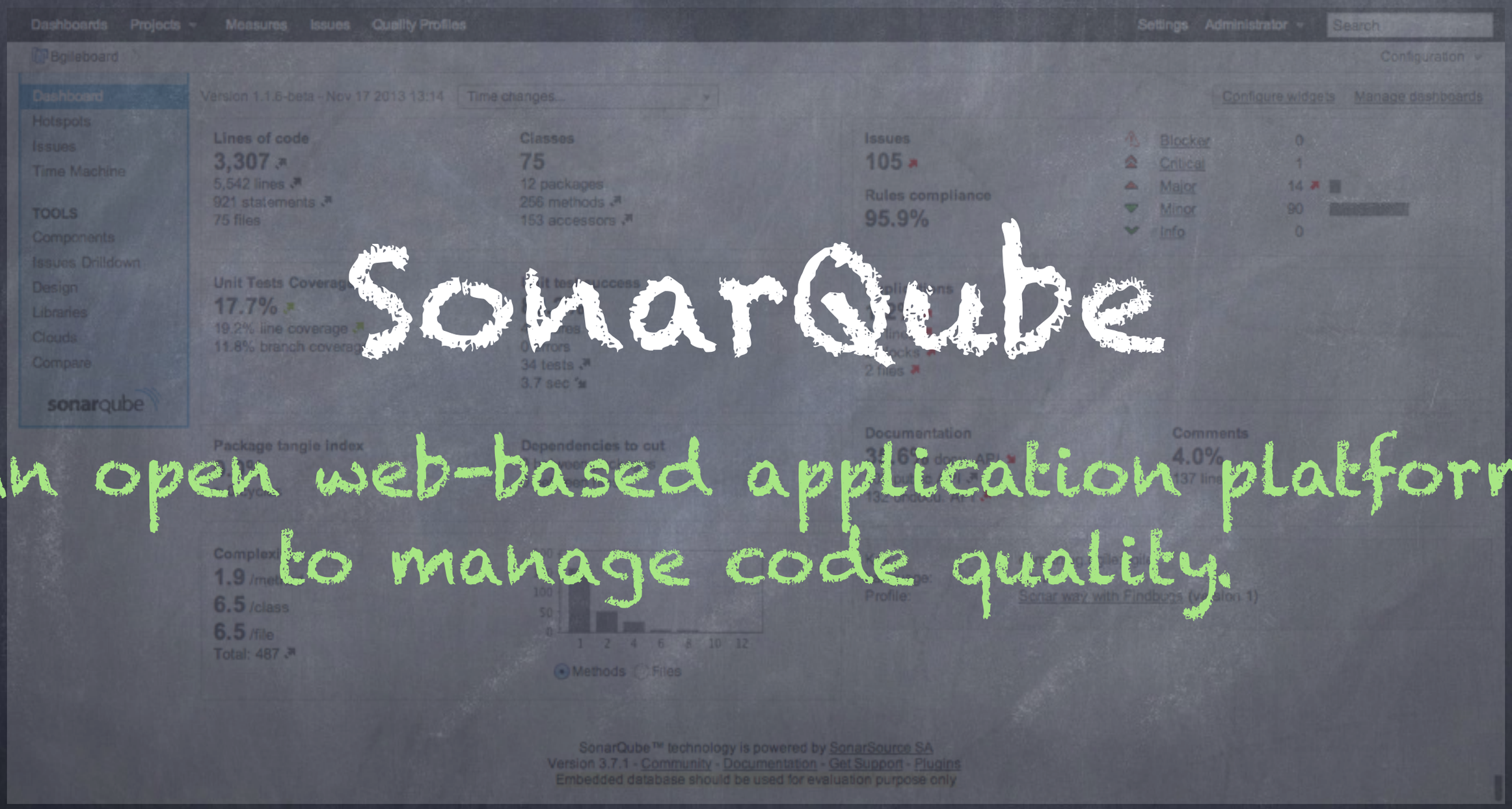
Vs

SonarQube
(Opensource by SonarSource)

Copyright 2013 @nuboat

SonarQube

An open web-based application platform to manage code quality.



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Dashboards | Projects | Measures | Issues | Quality Profiles | Settings | Administrator | Search

Bgileboard | Configuration

- Dashboard
- Hotspots
- Issues
- Time Machine

TOOLS

- Components
- Issues Drilldown
- Design
- Libraries
- Clouds
- Compare

sonarqube

Version 1.1.6-beta - Nov 17 2013 13:14 | Time changes... | Configure widgets | Manage dashboards

Lines of code
3,307
5,542 lines
921 statements
75 files

Classes
75
12 packages
256 methods
153 accessors

Issues
105

Blocker	0	
Critical	1	
Major	14	
Minor	90	
Info	0	

Rules compliance
95.9%

Unit Tests Coverage
17.7%
19.2% line coverage
11.8% branch coverage

Unit test success
88.2%
4 failures
0 errors
34 tests
3.7 sec

Duplications
1.2%
64 lines
2 blocks
2 files

Package tangle index
0.0%
> 0 cycles

Dependencies to cut
0 between packages
0 between files

Documentation
35.6% docu. API
205 public API
132 undocu. API

Comments
4.0%
137 lines

Complexity
1.9 /method
6.5 /class
6.5 /file
Total: 487

Key:	com.thjug.bgile:bgile
Language:	Java
Profile:	Sonar way with Findbugs (version 1)

SonarQube™ technology is powered by SonarSource SA
Version 3.7.1 - Community - Documentation - Get Support - Plugins
Embedded database should be used for evaluation purpose only

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ABAP*

JavaScript

C/C++*

Android

PL/SQL*

Web

Natural*

PL/I*

C#

Delphi / Pascal

XML

Cobol*

Language Support

Visual Basic 6*

Flex / ActionScript

Erlang

Python

Drools

Java

Groovy

PHP

VB.NET*

Pacbase*

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*Commercial support

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Issues
105

Blocker	0
Critical	1
Major	14
Minor	90
Info	0

Rules compliance
95.9%

Rules & Potential Bugs

Unit Tests Coverage
17.7%
19.2% line coverage
11.8% branch coverage

Unit test success
88.2%
4 failures
0 errors
34 tests
3.7 sec

Unit Test

Duplications
1.2%
64 lines
2 blocks
2 files

Duplicate

Package tangle index
0.0%
> 0 cycles

Dependencies to cut
0 between packages
0 between files

Complexity

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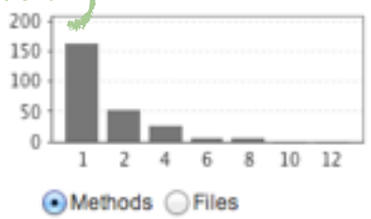

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137 lines

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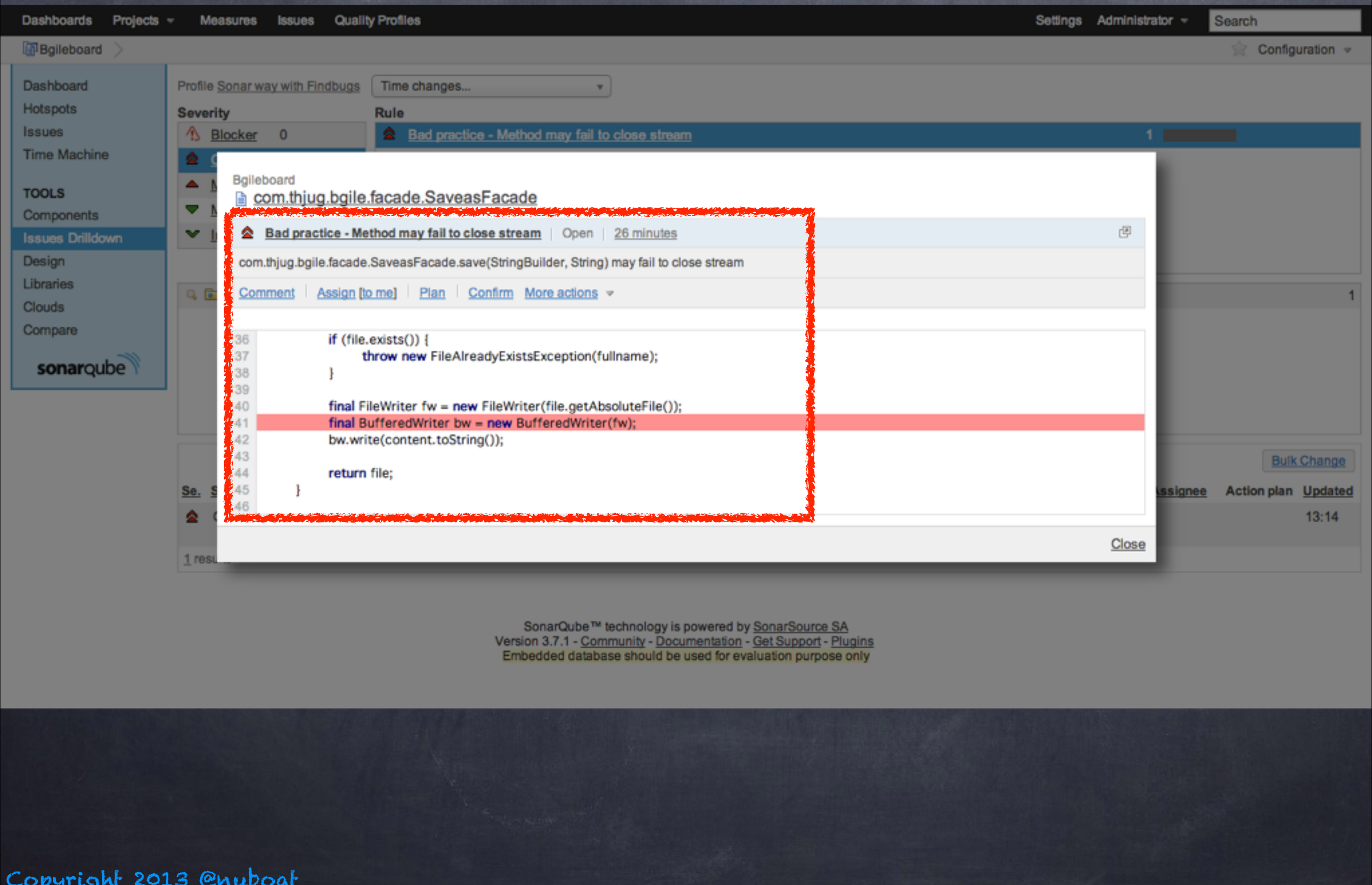
Potential Bugs



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Rules

Bgileboard

com.thjug.bgile.define.State

Coverage Duplications **Issues** LCOM4 Source Raw

6 issues Blocker: **0** Critical: **0** Major: **5** Minor: **1** Info: **0**

Full source | Time changes... | Constant names should comply with a naming convention (5) | Bulk Change

```
17  * @author @nuboat
18  */
19 public enum State {
20
21     Plan(0),
```

Constant names should comply with a naming convention | Open | about 20 hours

Rename this constant name to match the regular expression '^[A-Z][A-Z0-9]*(_[A-Z0-9]+)*$'.

Comment | Assign [to me] | Plan | Confirm | More actions

```
22     Process(1),
```

Constant names should comply with a naming convention | Open | about 20 hours

Rename this constant name to match the regular expression '^[A-Z][A-Z0-9]*(_[A-Z0-9]+)*$'.

Comment | Assign [to me] | Plan | Confirm | More actions

```
23     Test(2),
```

Constant names should comply with a naming convention | Open | about 20 hours

Rename this constant name to match the regular expression '^[A-Z][A-Z0-9]*(_[A-Z0-9]+)*$'.

Comment | Assign [to me] | Plan | Confirm | More actions

```
24     Done(3),
```

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Duplicate Code

23.4% Lines: **137** Duplicated lines: **32** Duplicated blocks: **1**

Blocks	Nb Lines	From line	File	Details
2	32	103	AuthenSession	com.thjug.bgile.entity.AuthenSession
	32	112	Todo	

```
103                 return false;
104             }
105             return true;
106         }
107
108         @Override
109         public String toString() {
110             return "AuthenSession[ id=" + id + " ]";
111         }
112
113         public Date getCreated() {
114             return (created != null) ? (Date) created.clone() : null;
115         }
116
117         public void setCreated(final Date created) {
118             this.created = (created != null) ? (Date) created.clone() : null;
119         }
120
121         public Date getUpdated() {
122             return (updated != null) ? (Date) updated.clone() : null;
123         }
124
125         public void setUpdated(final Date updated) {
126             this.updated = (updated != null) ? (Date) updated.clone() : null;
127         }
128
129         public Integer getUpdateby() {
130             return updateby;
131         }
132
133         public void setUpdateby(final Integer updateby) {
134             this.updateby = updateby;
```

Collapse

23.4% Lines: **137** Duplicated lines: **32** Duplicated blocks: **1**

Blocks	Nb Lines	From line	File	Details
2	32	103	AuthenSession	com.thjug.bgile.entity.Todo
	32	112	Todo	

```
112                 return false;
113             }
114             return true;
115         }
116
117         @Override
118         public String toString() {
119             return "Todo[ id=" + id + " ]";
120         }
121
122         public Date getCreated() {
123             return (created != null) ? (Date) created.clone() : null;
124         }
125
126         public void setCreated(final Date created) {
127             this.created = (created != null) ? (Date) created.clone() : null;
128         }
129
130         public Date getUpdated() {
131             return (updated != null) ? (Date) updated.clone() : null;
132         }
133
134         public void setUpdated(final Date updated) {
135             this.updated = (updated != null) ? (Date) updated.clone() : null;
136         }
137
138         public Integer getUpdateby() {
139             return updateby;
140         }
141
142         public void setUpdateby(final Integer updateby) {
143             this.updateby = updateby;
```

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Coverage

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sonarqube

Coverage
17.7%

com.thjug.bgile.entity	18.6%	AuthenSessionFacade	0.0%
com.thjug.bgile.facade	32.6%	GrantFacade	0.0%
com.thjug.bgile.servlet	33.9%	BoardAccountFacade	0.0%
com.thjug.bgile.service	41.7%	SaveasFacade	0.0%
com.thjug.bgile.define	62.1%	CardFacade	8.0%
com.thjug.bgile.util	70.9%	AccountFacade	37.5%

Bgileboard
com.thjug.bgile.facade.AccountFacade

Coverage | Duplications | Issues | LCOM4 | Source | Raw

37.5% by unit tests Line coverage: **37.5% (3/8)** Branch coverage: **0 (0/0)**

Full source | Lines to cover

```
24  /**
25   *
26   * @author @nuboat
27   */
28  public class AccountFacade {
29
30      private static final long serialVersionUID = 1L;
31
32      @Inject
33
34      @Logging
35      @Transactional
36      public Account createAccount(final Account account) {
37          return accountService.create(account);
38      }
39
40      @Logging
41      @Transactional
42      public Account editAccount(final Account account) {
43          return accountService.update(account);
44      }
45
46      @Logging
47      @Transactional
48      public void removeAccount(final Account account) {
49          accountService.remove(account);
50      }
51
52      @Logging
53      @Transactional
54      public Account findById(final Integer id) {
55          return accountService.find(id);
56      }
57
58      @Logging
59      @Transactional
60      public Account findByUsername(final String username) {
61          return accountService.find(username);
62      }
63
64      @Logging
65      @Transactional
66      public List<Account> containsKeyword(final String keyword) {
67          return accountService.findAccountList(keyword);
68      }
69
70
71  }
72
```

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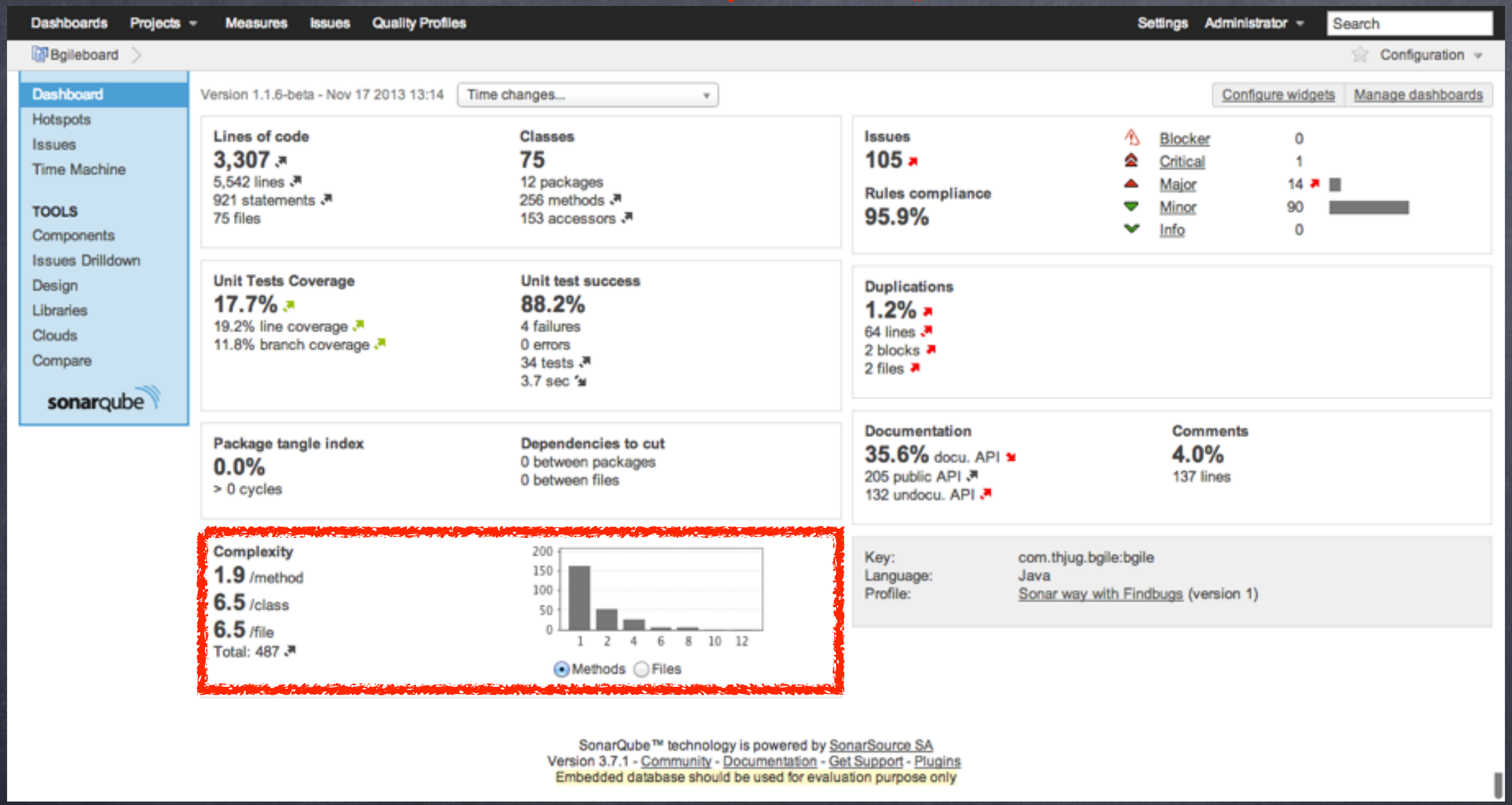
Complexity



Generally 1-4 is considered good, 5-7 ok, 8-10 consider re-factoring, and 11+ re-factor now !

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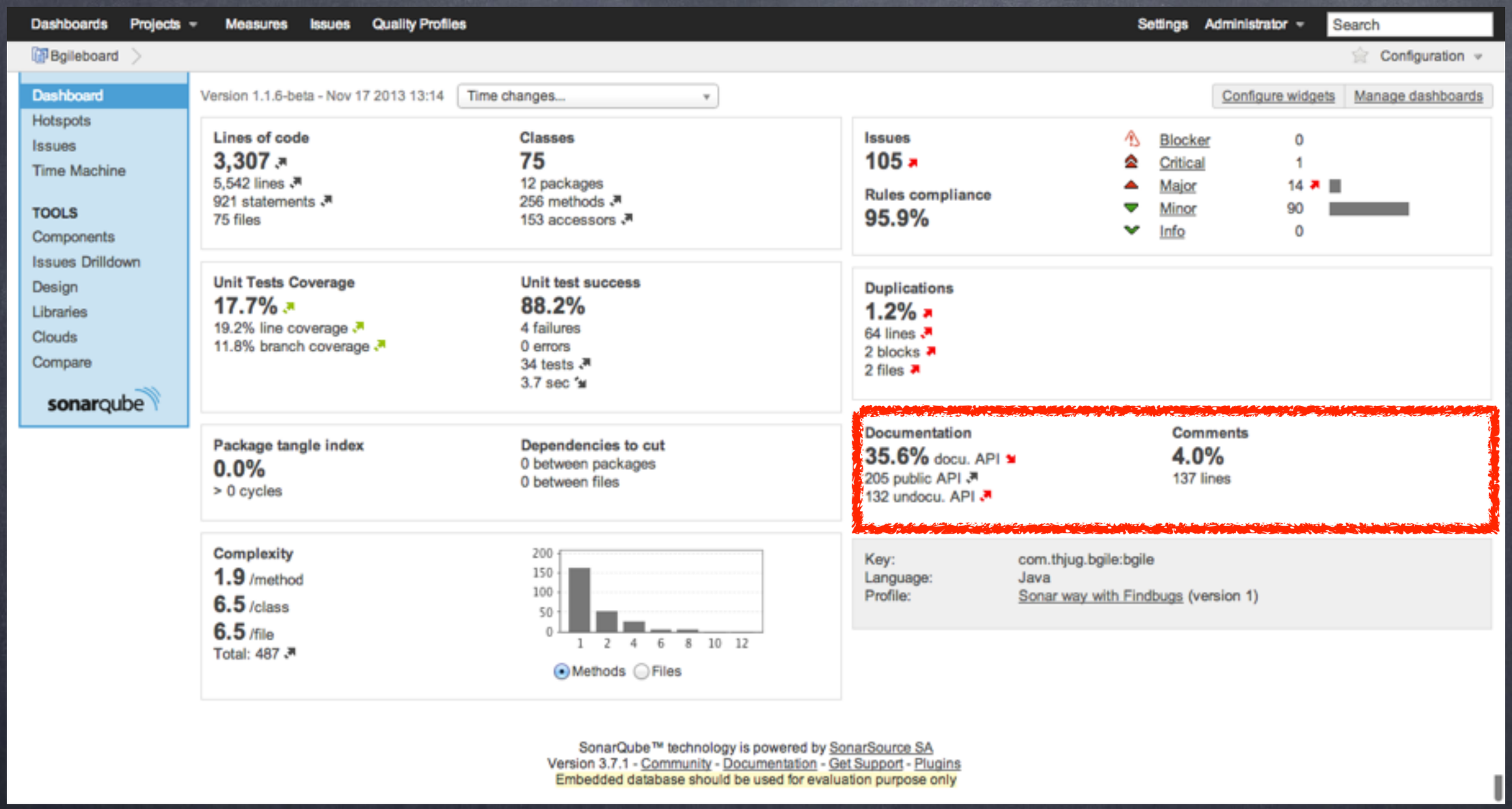
Comment



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Hotspots

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Version 1.1.6-beta - Nov 17 2013 13:39 | Time changes... | Configure widgets | Manage dashboards

Most Violated Rules (Any severity) — More

Tabulation characters should not be used	72
Magic Number	14
Constant names should comply with a naming convention	5
Singular Field	4
Unused Private Field	2

Most Violated Resources — More

State	0	0	5	1	0
SaveasFacade	0	1	1	2	0
Account	0	0	0	9	0
FboardManaged	0	0	1	2	0
Board	0	0	0	5	0

Hotspots by Unit tests duration — More

AccountFacadeNGTest	2.4 sec
URLFilterNGTest	492 ms
BoardFacadeNGTest	273 ms
CardFacadeNGTest	80 ms
GravatarNGTest	35 ms

Hotspots by Uncovered lines — More

BoardManaged	89
CardFacade	53
GrantManaged	47
Account	43
GuiceResolver	43

Hotspots by Complexity — More

AbstractService	31
BoardManaged	27
GuiceResolver	26
AbstractManaged	25
CardFacade	20

Hotspots by Complexity /method — More

URLFilter	6.0
SigninFilter	5.0
JpaRealm	4.5
HomeManaged	4.0
FboardManaged	4.0

Hotspots by Duplicated lines — More

Todo	32
AuthenSession	32

Hotspots by Public undocumented API — More

AbstractService	8
CardFacade	7
Timeable	6
BoardAccountService	6
AccountFacade	6

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Issues

FAVOURITE FILTERS

Manage

NEW SEARCH

Project: Bgileboard

Severity: Severity

Status: Status

Resolution: Resolution

Assignee: Assignee

Reporter: Reporter

Created since:

Created before:

year-month-day (2013-01-31)

Search New search

Save as | Bulk Change

Se.	Status	Description	Component	Assignee	Action plan	Updated
▼	Open	Replace all tab characters in this file by sequences of white-spaces.	Bgileboard com.thjug.bgile.define.Accounttype			Nov 16 2013
▼	Open	Replace all tab characters in this file by sequences of white-spaces.	Bgileboard com.thjug.bgile.define.Columnsize			Nov 16 2013
▼	Open	Replace all tab characters in this file by sequences of white-spaces.	Bgileboard com.thjug.bgile.define.Enable			Nov 16 2013
▼	Open	Replace all tab characters in this file by sequences of white-spaces.	Bgileboard com.thjug.bgile.define.Permission			Nov 16 2013
▼	Open	Replace all tab characters in this file by sequences of white-spaces.	Bgileboard com.thjug.bgile.define.Private			Nov 16 2013
▲	Open	Rename this constant name to match the regular expression '^[A-Z][A-Z0-9]*(_[A-Z0-9]+)*$'.	Bgileboard com.thjug.bgile.define.State			Nov 16 2013
▲	Open	Rename this constant name to match the regular expression '^[A-Z][A-Z0-9]*(_[A-Z0-9]+)*$'.	Bgileboard com.thjug.bgile.define.State			Nov 16 2013
▼	Open	Replace all tab characters in this file by sequences of white-spaces.	Bgileboard com.thjug.bgile.define.State			Nov 16 2013
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▲	Open	Rename this constant name to match the regular expression '^[A-Z][A-Z0-9]*(_[A-Z0-9]+)*$'.	Bgileboard com.thjug.bgile.define.State			Nov 16 2013
▲	Open	Rename this constant name to match the regular expression '^[A-Z][A-Z0-9]*(_[A-Z0-9]+)*$'.	Bgileboard com.thjug.bgile.define.State			Nov 16 2013
▼	Open	Replace all tab characters in this file by sequences of white-spaces.	Bgileboard com.thjug.bgile.define.Status			Nov 16 2013
▼	Open	'64' is a magic number.	Bgileboard com.thjug.bgile.entity.Account			Nov 16 2013

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Time Machines

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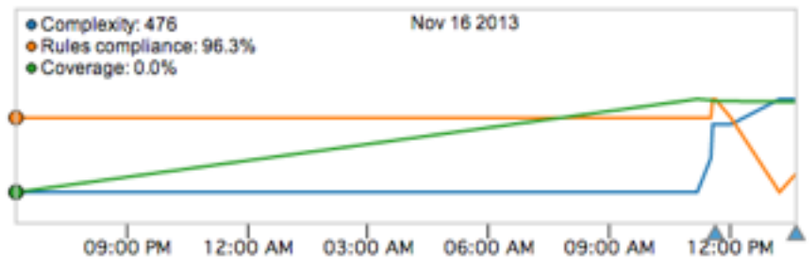

	Nov 16 2013	Nov 17 2013 1.1.6-beta
Lines of code	3,225	3,305
Lines	5,423	5,540
Statements	899	919
Files	74	75
Classes	74	75
Methods	251	256
Accessors	145	153

	Nov 16 2013	Nov 17 2013 1.1.6-beta
Comments (%)	4.0%	4.0%
Comment lines	136	137
Public documented API (%)	36.7%	35.6%
Public undocumented API	126	132

	Nov 16 2013	Nov 17 2013 1.1.6-beta
Duplicated lines (%)	0.0%	1.2%
Duplicated lines	0	64
Duplicated blocks	0	2
Duplicated files	0	2

	Nov 16 2013	Nov 17 2013 1.1.6-beta
Issues	99	104
Blocker issues	0	0
Critical issues	0	1
Major issues	10	12
Minor issues	89	91
Weighted issues	119	132

	Nov 16 2013	Nov 17 2013 1.1.6-beta
Complexity	476	487
Complexity /method	1.9	1.9
Complexity /class	6.4	6.5
Complexity /file	6.4	6.5

	Nov 16 2013	Nov 17 2013 1.1.6-beta
Coverage	0.0%	17.7%
Line coverage	0.0%	19.2%
Branch coverage	0.0%	11.8%
Unit tests success (%)		88.2%
Unit tests failures		4
Unit tests errors		0
Unit tests duration		3.3 sec

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Update Center

Update Center

CONFIGURATION
General Settings
Manual Metrics
Manual Rules
Default Dashboards

SECURITY
Users
Groups
Global Permissions
Project Permissions

SYSTEM
Backup
Bulk Deletion
Update Center
System Info

sonarqube

Installed Plugins | Available Plugins | Plugin Updates | System Updates

Additional Languages

ABAP	Enable analysis and reporting on ABAP projects
Android	Enables analysis and reporting on Android projects.
Cobol	Enable analysis and reporting on Cobol projects.
C/C++ (SonarSource)	Enable analysis and reporting on C/C++ projects.
C#	Plugin that defines the core APIs for the C# Plugins.
C++ (Community)	Enables analysis of C++ projects (Community).
Delphi	Enables analysis of Delphi projects.
.NET	Plugin that defines the core APIs for the .NET Ecosystem.
Erlang	Provides support for Erlang projects.
Flex	Enables analysis of ActionScript projects.
Groovy	Enables analysis of Groovy projects.
JavaScript	Enables analysis of JavaScript projects.
Natural	Enable analysis and reporting on Natural projects.
Pacbase	Enable analysis and reporting on PACBASE projects.
PHP	Enables analysis of PHP projects. **License:** GNU LGPL v3 **Author:** Codehaus Sonar Plugins **Links:** Homepage Issue Tracker **Version:** 1.2 (Jun 7, 2013) Install
PL/I	Enable analysis and reporting on PL/I projects.
PL/SQL	Enable analysis and reporting on PL/SQL projects.

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DEMO

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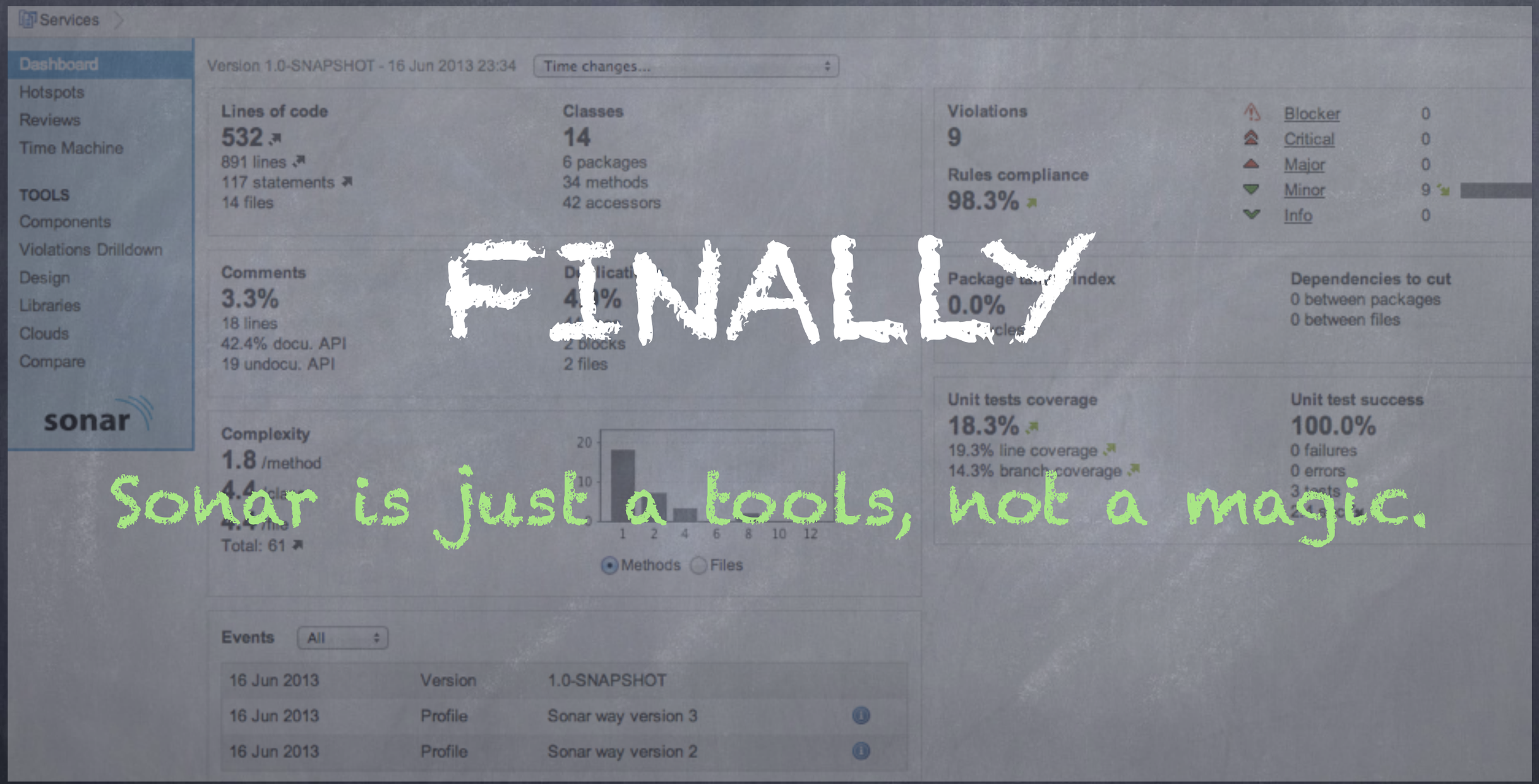

FINALLY

Sonar is just a tools, not a magic.

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References

- http://www.sonarqube.org/
- http://www.sonarsource.com/
- http://docs.codehaus.org/display/SONAR/Plugin+Library
- http://findbugs.sourceforge.net/
- http://pmd.sourceforge.net/
- http://github.com/nuboat/bgileboard

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Q & A

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