

Analizando Qualidade de Código- Fonte com Sonar Qube

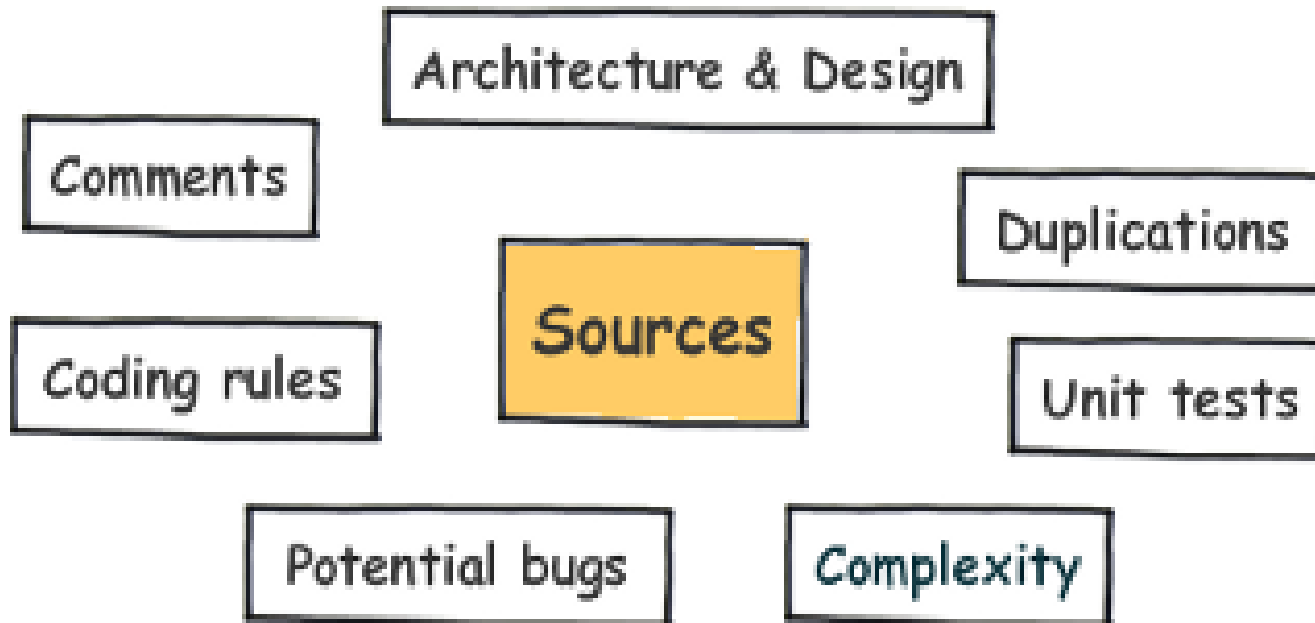
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Visão Geral

- Mais de 20 linguagens de programação
 - Java, C#, C++, Cobol
- Mais de 50 extensões
 - Ferramentas de desenvolvimento
 - Governancia
 - Integração
 - Autenticação
 - Métricas Adicionais
- GNU LGPL 3.0

Sete Eixos de Qualidade



Dashboard Global

Helicopter View

- Languages Panel
- Activity
- SonarQube Ecosystem

FERRAMENTAS

- Dependências
- Comparar

ALL PROJECTS

SQALE Rating **B**

6,128d to **A** ↗

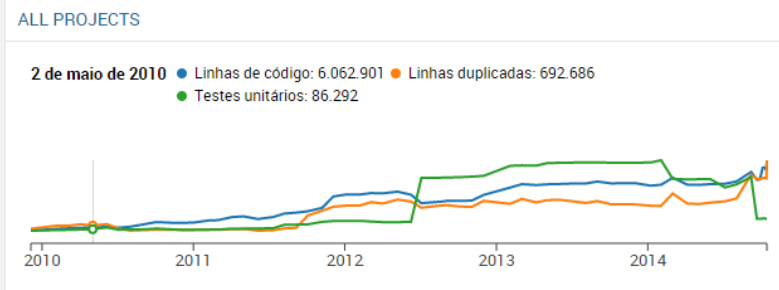
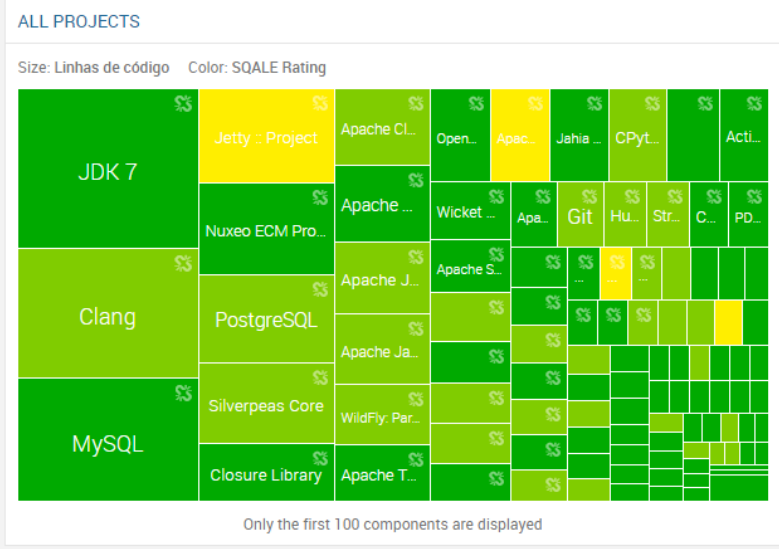
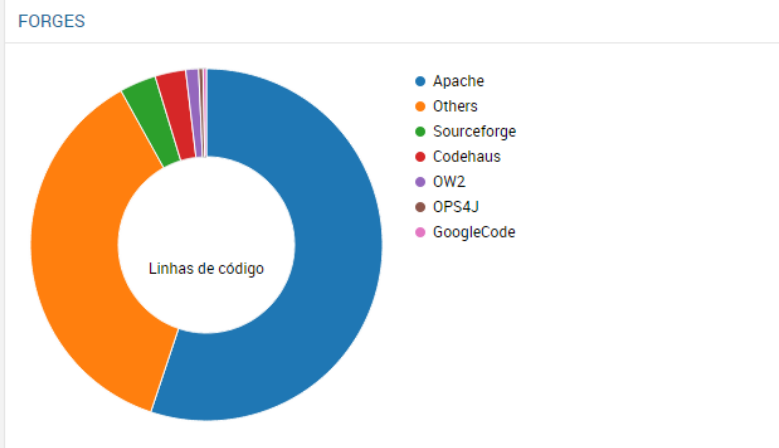
Technical Debt Ratio **10,8%**

Technical Debt **87,671d** ↗ | Linhas De Código **13.062K** ↗

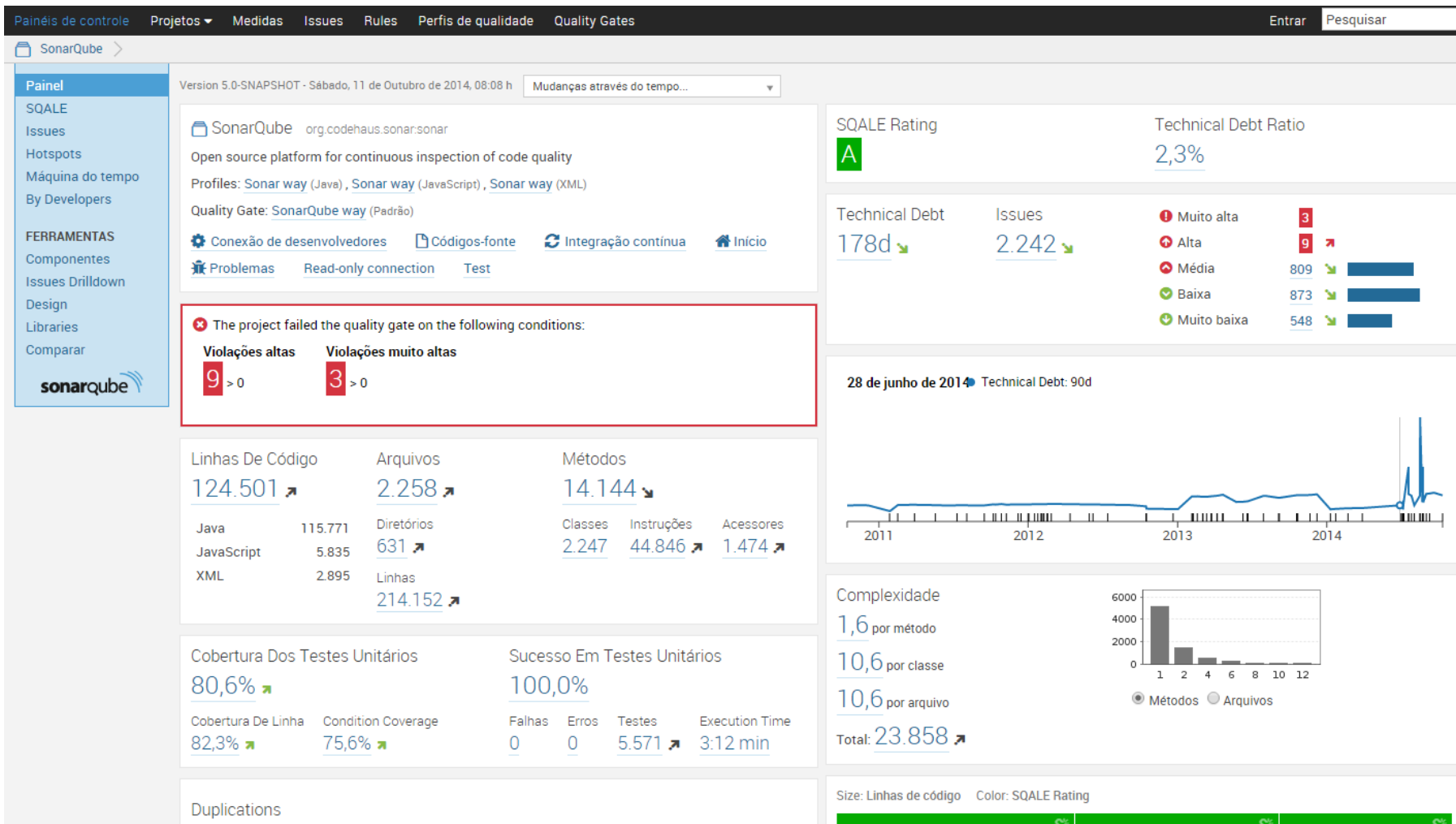
ALL PROJECTS

Technical Debt **87,671d** ↗ | Issues **2.645.738** ↗

🔴 Muito alta	4.101	↘
🔴 Alta	14.946	↗
🔴 Média	1.937.077	↗
🟢 Baixa	621.809	↗
🟢 Muito baixa	67.805	↗



Dashboard de Projetos



Hunting Service

Mudanças através do tempo...

Severity	
! Muito alta	3
↑ Alta	9
^ Média	809
✓ Baixa	873
↓ Muito baixa	548

Rule	
! Throwable and Error classes should not be caught	2
! "equals(Object obj)" and "hashCode()" should be overridden in pairs	1
↑ Methods named "equals" should override Object.equals(Object)	6
↑ System.exit(...) and Runtime.getRuntime().exit(...) should not be called	1
↑ Thread.run() and Runnable.run() should not be called directly	1
↑ "equals(Object obj)" should be overridden along with the "compareTo(T obj)" method	1

Package	Count	Package	Count	Package	Count
SonarQube :: Plugin API	731	src/main/java/org/sonar/api/measures	121	CoreMetrics.java	66
SonarQube :: Server :: Parent	672	src/main/java/org/sonar/api/resources	106	Snapshot.java	32
SonarQube :: Server	542	src/main/java/org/sonar/api/utils	71	SnapshotDto.java	28
SonarQube :: Core	257	src/main/java/org/sonar/api/rules	55	GraphsonTokens.java	28
SonarQube :: Batch	209	src/main/java/org/sonar/server/search	51	ViolationConverter.java	28
		src/main/java/org/sonar/api/database/model	42	BaseIndex.java	28

SonarQube / SonarQube :: Plugin API 472
src/main/java/org/sonar/api/database/model/Snapshot.java Linhas de código

2d 1h 32 Debt Violações
16,9% Cobertura 2,1% Linhas duplicadas (%) SCM

Time Changes

Filters	Severities	Rules
Unresolved Issues >	! Média	5 > Duplicated blocks 1 >
Open/Reopened Issues >	✓ Baixa	27 > Insufficient branch coverage ... 1 >
Fixed Issues >		Magic numbers should not b... 26 >
False Positive Issues >		Methods should not be too c... 3 >
		The members of an interface... 1 >

» 1 duplicated blocks of code. Open Debt: 1h

» 28 more branches need to be covered by unit tests to reach the minimum threshold of 65.0% branch coverage.

Visualizador

```
574     period3Mode = s;  
575     break;  
576     case 4:
```

✔ Assign this magic number 4 to a well-named constant, and use the constant instead.

Open | Debt: 5min | Autor: simon.brandhof@gmail.com

```
577     period4Mode = s;  
578     break;  
579     case 5:
```

✔ Assign this magic number 5 to a well-named constant, and use the constant instead.

Open | Debt: 5min | Autor: simon.brandhof@gmail.com

```
580     period5Mode = s;  
581     break;  
582     default:  
583         throw new IndexOutOfBoundsException("Index of Snapshot.periodMode is between 1 and 5");  
584     }  
585     return this;  
586 }  
587  
588 public String getPeriodMode(int index) {
```

✖ The Cyclomatic Complexity of this method "getPeriodMode" is 12 which is greater than 10 authorized.

Open | Debt: 10min | Autor: Simon Brandhof

```
589     switch (index) {  
---
```

Realizando a Análise

- Sonar Qube Runner
- Maven
- Ant
- Gradle

Análise e Integração Contínua

- Jenkins
- Hudson
- Atlassian Bamboo
- Apache Continuum
- Cruise Control
- JetBrains TeamCity

Como Contribuir?

- Enviar *feedback* na documentação
- Contribuir com uma extensão existente
- Compartilhar ou desenvolver uma nova extensão
- Discutir a API

Sonar e Dívida Técnica

Technical Debt

178d

SonarQube :: Plugin API	72d	src/main/java/org/sonar/api/rules	6d 6h	ActiveRule.java	2d 5h
SonarQube :: Server :: Parent	36d	src/main/java/org/sonar/process	5d 4h	Rule.java	1d 3h
SonarQube :: Batch	28d	src/main/java/org/sonar/api/utils	5d	ActiveRuleParam.java	6h 52min
SonarQube :: Server	23d	src/main/java/org/sonar/api/batch	4d 5h	Violation.java	5h 20min
SonarQube :: Core	18d	src/main/java/org/sonar/batch	4d 4h	RuleParam.java	5h
SonarQube :: Deprecated	7d	src/main/java/org/sonar/api/database/model	4d 3h	RulePriority.java	2h 20min

SonarQube / SonarQube :: Plugin API 370 A 1d 3h 13 53,9%
src/main/java/org/sonar/api/rules/Rule.java Linhas de código Debt Violações Cobertura SCM

Time Changes

Filters	Severities	Rules
Unresolved Issues >	✓ Baixa	2 > Deprecated code should be r... 11 >
Open/Reopened Issues >	✓ Muito baixa	11 > Magic numbers should not b... 2 >
Fixed Issues >		
False Positive Issues >		

```
165 /**
166  * @deprecated since 2.3. Use the factory method {@link #create()}
167  */
168 @Deprecated
169 public Rule() {
170 }
171
172 /**
173  * Creates rule with minimum set of info
```

Do not forget to remove this deprecated code someday.
Open | Debt: 1h | Autor: simon.brandhof@gmail.com

Sonar e Dívida Técnica

- Cálculo simples com funções constantes e lineares de 1 parâmetro
- Despreza o contexto
- Não utiliza um histórico de pagamento de dívida técnica
- Extensão completa comercial (2.700 euros)

Referência

<http://www.sonarqube.org/>

Obrigado

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