



Track quality metrics of your JavaScript project

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Goal

Help you **Kickstart**
a **Quality Process**
for your **Javascript Code**

Presentation Scope

- Technology stack (open source)
 - Js oriented Build environment: **NodeJs – NPM – Grunt**
 - Platform to manage code quality: **SonarQube**
 - AEM “preferred” build environment: **Maven**
- Sample Project
 - UI Widget providing AEM page timing info (`com.adobe.granite.ui.utils.timing`)
- Quality Metrics
 - Static code analysis / Technical debt: appliance to best practice coding rules
 - Unit testing coverage
 - Integration testing coverage

STATIC CODE ANALYSIS

UNIT TESTING
(+COVERAGE)

INTEGRATION TESTING
(+COVERAGE)

DEMO

Sample Project



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Sample Project

- **/lib/** Pure Js library
 - build via Grunt tasks
- **/content/** AEM Content Package
 - build via Maven
 - Install on running AEM
- UI widget on AEM pages
 - toggle via “w” keyboard shortcut

DEMO

Static Code Analysis



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Static Code Analysis

- Let SonarQube analyse the code
- Analyse the code during build process, linting
 - Avoid committing issues to your code!

STATIC CODE ANALYSIS

UNIT TESTING
(+COVERAGE)

INTEGRATION TESTING
(+COVERAGE)

DEMO

Unit Testing



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Unit Testing

- Complete process executed via grunt tasks
 - test execution
 - code coverage
 - SonarQube analysis
 - fail build based on coverage criteria
- ***BONUS***
 - Native browser execution
 - Execute grunt tasks via *good ol'* Maven

STATIC CODE ANALYSIS

UNIT TESTING
(+COVERAGE)

INTEGRATION TESTING
(+COVERAGE)

DEMO

Integration Testing



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Integration Testing

- Not automated *yet* ...
- Use grunt tasks to
 - Instrument Js code
 - Generate coverage report file (lcov) from raw data
- Execute UI Tests on instrumented code on AEM
- Report IT coverage on SonarQube

STATIC CODE ANALYSIS

UNIT TESTING
(+COVERAGE)

INTEGRATION TESTING
(+COVERAGE)

Developers are amazing
let them fully use their beloved technologies

Quality is a continuous and iterative process
just start it

Resources

- Sample project: `com.adobe.granite.ui.utils.timing` (ZIP available on the Gem session page)
- SonarQube: <http://www.sonarqube.org/>
- NodeJs: <https://nodejs.org/en/>
- NPM repository: <https://www.npmjs.com/>
- Grunt: <http://gruntjs.com/>

Q&A

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