

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

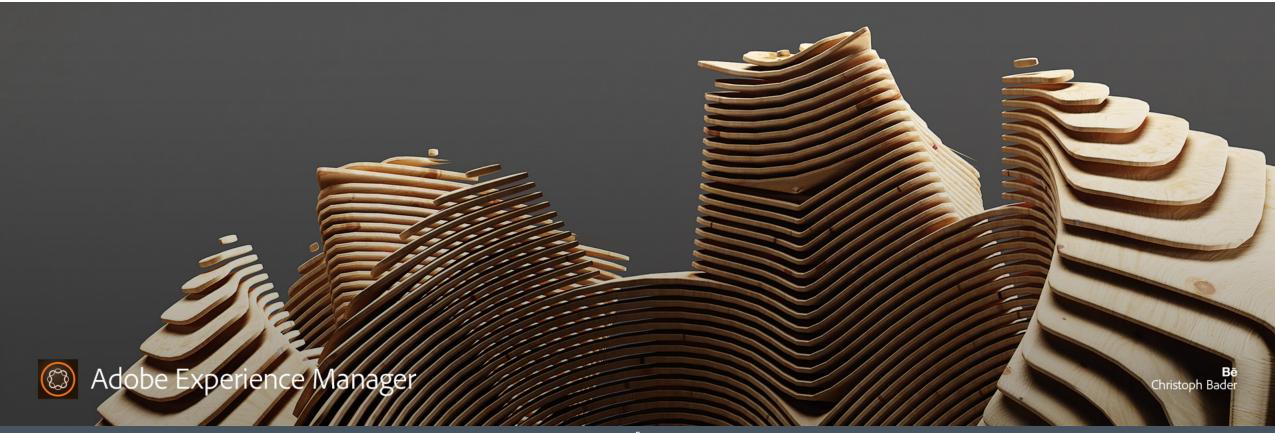
STATIC CODE ANALYSIS

UNIT TESTING (+COVERAGE)

INTEGRATION TESTING (+COVERAGE)



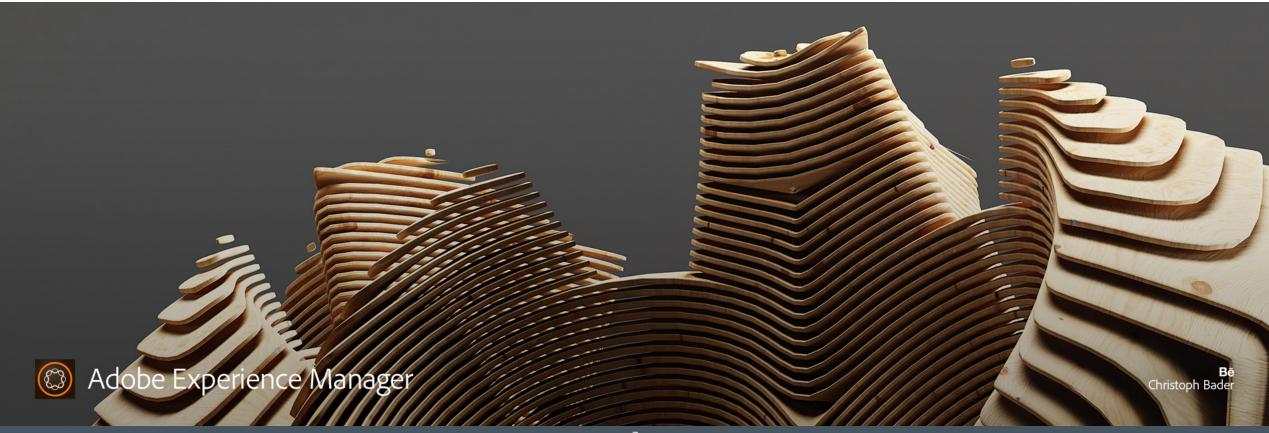
DEMOSample Project



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

DEMOStatic Code Analysis



Static Code Analysis

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

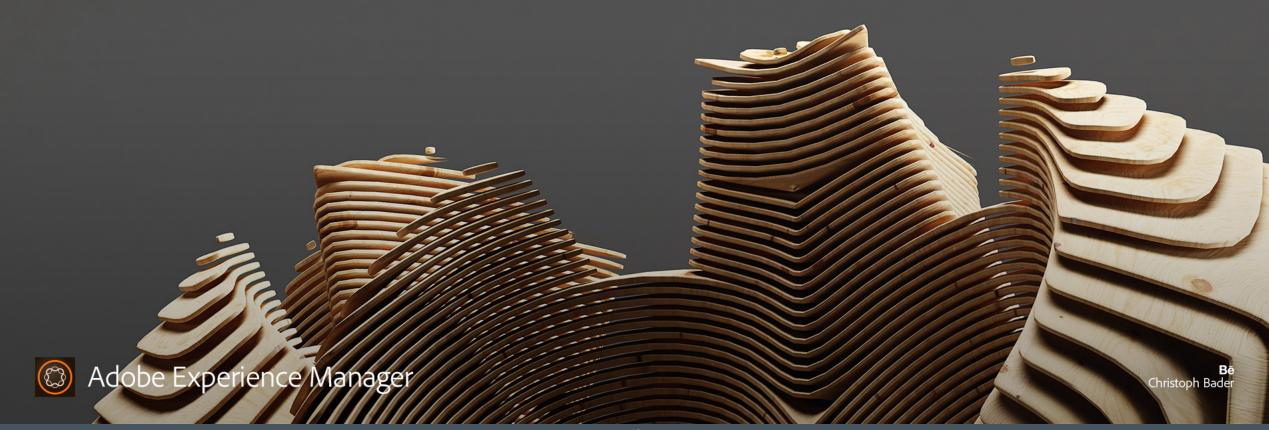
STATIC CODE ANALYSIS

UNIT TESTING (+COVERAGE)

INTEGRATION TESTING (+COVERAGE)



DEMOUnit Testing



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

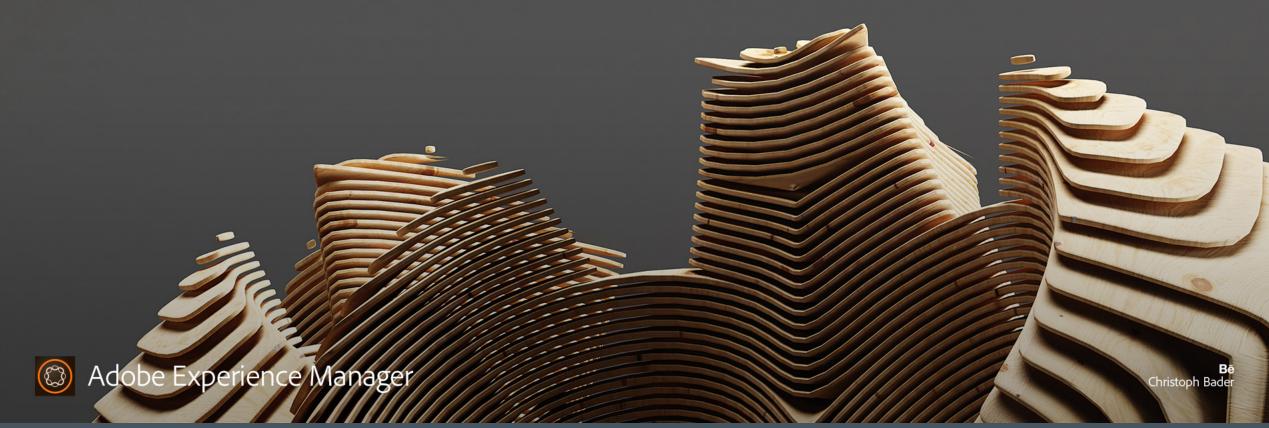
UNIT TESTING

(+COVERAGE)

(+COVERAGE)



DEMO
Integration Testing



Integration Testing

- Not automated yet ...
- Use grunt tasks to
 - Intrument 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)



Conclusion

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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