

Build- and Testautomation

Agenda

- Überblick
- Nutzen
- Umsetzung

Überblick

- Build-Automation
 - vollautomatischer Build auf dediziertem Buildserver
 - kompilieren
 - Tests ausführen (Testautomation)
 - Deployment auf Produktionssystemen
 - Dokumentation
 - 3 Arten
 - On-Demand
 - Scheduled (CI)
 - Triggered (CI)

Überblick

- Test-Automation
 - automatische Tests nach jedem erfolgreichen Build
 - Regressionstests
- 3 Arten
 - Code-driven testing
 - GUI testing
 - API driven testing

Nutzen

- Erhöhte Produktqualität
- Kürzere Buildzeiten
- Fehler tauchen früher auf
- ... und sind leichter zu beheben

Umsetzung

- Continuous Integration über Travis CI
 - kostenlos
 - frei konfigurierbar (Ubuntu)
 - Github Integration
- Ablauf
 1. neuer Commit wird auf das Repo gepusht
 2. Travis CI checkt diesen aus und startet das Buildskript
 - Build und Test mithilfe von Maven
 3. Emailbenachrichtung bei Fehler



My Repositories +

✓ csak4954/SEPM

32

⌚ Duration: 14 sec

📅 Finished: about 10 hours ago

csak4954/SEPM



build passing

[Current](#) [Branches](#) [Build History](#) [Pull Requests](#)

⚙ Settings ▾



feature/#18 mocked rest-service -> see request-mappings



csak4954 authored and committed

32 passed

👤 Commit 4e478cf

👤 Compare a3ed620..4e478cf

⌚ ran for 14 sec

📅 about 10 hours ago



✖ Remove Log

⬇ Download Log

1 Using worker: worker-linux-docker-3c6c5013.prod.travis-ci.org:travis-linux-2

2

▶ 3 Build system information

system_info

65

▶ 66 \$ git clone --depth=50 --branch=feature/\#18 git://github.com/csak4954/SEPM.git csak4954/SEPM

git.checkout

1.55s

76

77 This job is running on container-based infrastructure, which does not allow use of 'sudo', setuid and setgid executables.

78 If you require sudo, add 'sudo: required' to your .travis.yml

79 See <http://docs.travis-ci.com/user/workers/container-based-infrastructure/> for details.

80 \$ java -Xmx32m -version

81 java version "1.7.0_76"

82 Java(TM) SE Runtime Environment (build 1.7.0_76-b13)

83 Java HotSpot(TM) 64-Bit Server VM (build 24.76-b04, mixed mode)

84 \$ javac -J-Xmx32m -version

85 javac 1.7.0_76

▶ 86 \$ chmod +x "./src/los/run_tests.sh"

before_script

0.00s

87 \$./src/los/run_tests.sh

8.62s

88 [INFO] Scanning for projects...

89 [INFO]

90 [INFO] -----

91 [INFO] Building los 1.0.0-BUILD-SNAPSHOT

92 [INFO] -----

93 Downloading: <https://repo.maven.apache.org/maven2/org/apache/maven/plugins/maven-resources-plugin/2.6/maven-resources-plugin-2.6.pom>94 Downloaded: <https://repo.maven.apache.org/maven2/org/apache/maven/plugins/maven-resources-plugin/2.6/maven-resources-plugin-2.6.pom> (8 KB at 20.0 KB/sec)95 Downloading: <https://repo.maven.apache.org/maven2/org/apache/maven/plugins/maven-plugins/23/maven-plugins-23.pom>

csak4954/SEPM build passing

Current Branches Build History Pull Requests

Settings ▾

 	feature/#18 mocked rest-service -> see request-mappings csak4954 committed	# 32 passed 4e478cf	🕒 14 sec 📅 about 10 hours ago
 	develop upgraded spring framework to 4.1.6.RELEASE Florian Tischler committed	# 31 passed 3f78485	🕒 19 sec 📅 6 days ago
 	feature/#24 provide data by mocking, some fixes csak4954 committed	# 30 passed a3ed620	🕒 14 sec 📅 8 days ago
 	feature/#18 provide data by mocking, some fixes csak4954 committed	# 29 passed a3ed620	🕒 17 sec 📅 9 days ago
 	feature/#18 JUnitTests Ignored because of CI Connection refused- error csak4954 committed	# 28 passed 70541b2	🕒 34 sec 📅 13 days ago

Vielen Dank für Ihre Aufmerksamkeit

- Quellen
 - Wikipedia
 - [Travis CI](#)