Wer bin ich?

- Sandra Parsick
- Freiberuflicher Softwareentwickler und Consultant im Java-Umfeld
- Schwerpunkte:
 - Java Enterprise Anwendungen
 - Agile Methoden
 - Software Craftmanship
 - Automatisierung von Entwicklungsprozessen
- Trainings
- Workshops





@ @sparsick@mastodon.social

https://www.sandra-parsick.de

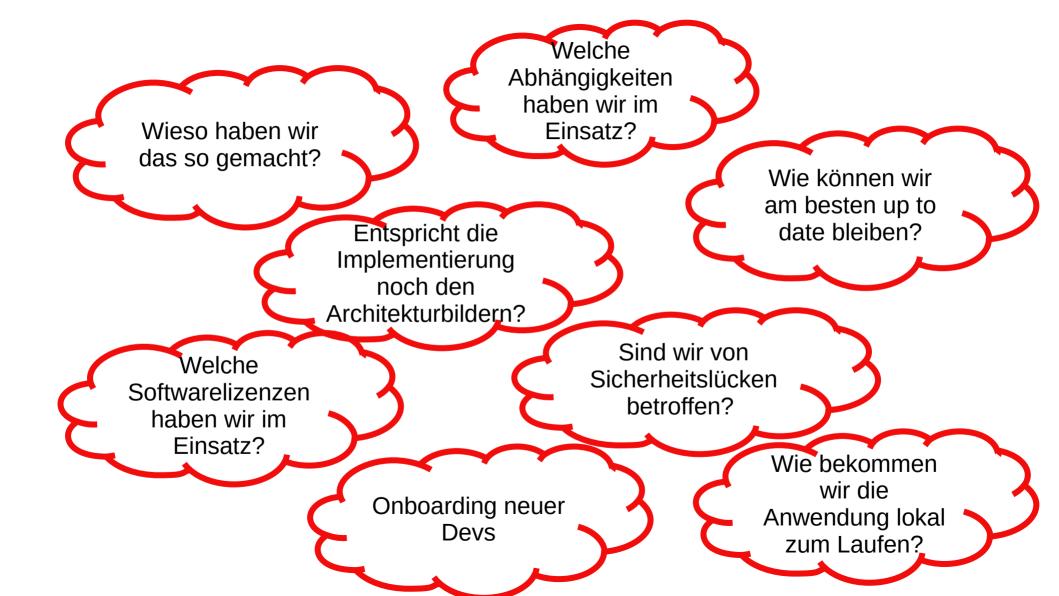
https://ready-for-review.dev











Willkommen in der Wartungshölle











Automation is Queen:)

Spring Pet Clinic



A HOME

Q FIND OWNERS

!■ VETERINARIANS

AERROR

Owners

Name	Address	City	Telephone	Pets
Jeff Black	1450 Oak Blvd.	Monona	6085555387	Lucky
Jean Coleman	105 N. Lake St.	Monons	6085552654	Max Samantha
Betty Davis	638 Cardinal Ave.	Sun Prairie	6085551749	Basil
Harold Davis	563 Friendly St.	Windsor	6085553198	legy
Maria Escobito	345 Maple St.	Madison	6085557683	Mulligan
Carlos Estaban	2335 Independence La.	Waunakaa	605555487	Lucky Siy
George Franklin	110 W. Liberty St.	Madison	GDB5551Q23	Lea
Peter McTavish	2387 S. Feir Way	Madison	6086552765	Searge
Eduardo Rodriquez	2693 Commerce St.	McFarland	6095558763	Jewel Rosy
David Schroeder	2749 Blackhawk Trail	Macison	6085559435	Freddy



Spring Pet Clinic

- Technologiestack:
 - Java 8
 - Spring Boot 2.2.0
 - JUnit 4
 - Maven



Architektur dokumentieren

1. Einführung und Ziele

- 1.1 Aufgabenstellung
- 1.2 Qualitătsziele
- 1.3 Stakeholder

2. Randbedingungen

- 2.1 Technische Randbedingungen
- 2.2 Organisatorische Randbedingungen
- 2.3 Konventionen

3. Kontextabgrenzung

- 3.1 Fachlicher Kontext
- 3.2 Technischer- oder Verteilungskontext

4. Lösungsstrategie

5. Bausteinsicht

- 5.1 Ebene 1
- 5.2 Ebene 2

2022

6. Laufzeitsicht

- 6.1 Laufzeitszenario 1
- 6.2 Laufzeitszenario 2

....

7. Verteilungssicht

- 7.1 Infrastruktur Ebene 1
- 7.2 Infrastruktur Ebene 2

....

8. Querschnittliche Konzepte

- 8.1 Fachliche Struktur und Modelle
- 8.2 Architektur- und Entwurfsmuster
- 8.3 Unter-der-Haube
- 8.4 User Experience

.....

9. Entwurfsentscheidungen

- 9.1 Entwurfsentscheidung 1
- 9.2 Entwurfsentscheidung 2

....

10. Qualitätsanforderungen

- 10.1 Qualitätsbaum
- 10.2 Qualitätsszenarien

11. Risiken und technische Schulden

12. Glossar





Was ist wenn nix da ist?

Source Code ist immer da.



Spring Modulith

@springmodulith

Modulithic lave applications using Spring Boot

```
    Spring Projekt
```

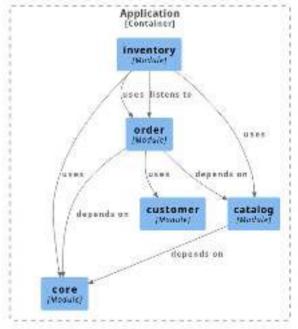
- Basiert auf jMolecule
- Spring Boot Erweiterung
- einer der Features:
 u.a. Generierung von Diagrammen
 basierend auf Annotationen

```
class DocumentationTests {

ApplicationModules modules = ApplicationModules.of(Application.class);

@Test
    void writeDocumentationSnippets() {

    new Documenter(modules)
        .writeModulesAsPlantUml()
        .writeIndividualModulesAsPlantUml();
}
```



Legend

II container boundary replact

Entscheidungen dokumentieren

ADR (architecture decision records) https://adr.github.io/

[short title of solved problem and solution]

- Status: [proposed | rejected | accepted | deprecated | ... | superseded by [ADR-0005](0005-example.adoc)] <!-- optional
- Decision makers: [list everyone involved in the decision] <!-- optional ---
- Date: [YYYY-MM-DD when the decision was last updated] <!-- optional →

Technical Story: [description | ticket/issue URL] <!-- optional ---

Context and Problem Description

Decision driver <!-- optional -→

- · [driver 1, e.g., a force, facing concern, ...]
- · [driver 2, e.g., a force, facing concern, ...]
- ... <!-- numbers of drivers can vary ---

Considered Options

- · [option 1]
- · [option 2]
- [option 3]
- ... <!-- numbers of options can vary ---

Decision

Chosen option: "[option 1]", because [justification. e.g., only option, which meets k.o. criterion decision driver | which resolves force force | ... | comes out best (see below)].

Positive Consequences

- [e.g., improvement of quality attribute satisfaction, follow-up decisions required, ...]
- ...

Negative Consequences

- . [e.g., compromising quality attribute, follow-up decisions required, ...]
- .

Pros and Cons of the Options

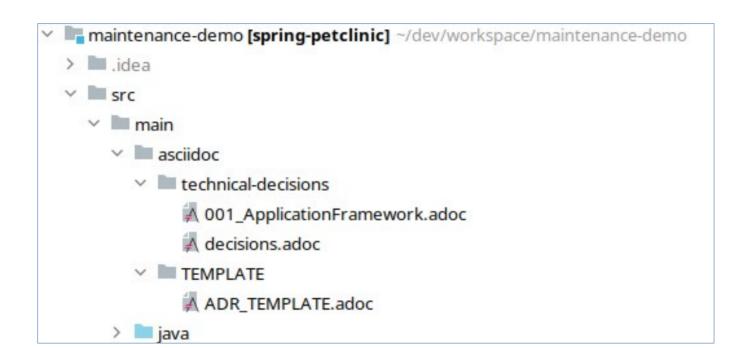
[option 1]

[example | description | pointer to more information | ...] <!-- optional ---

- . Good: because [argument a]
- . Good: because [argument b]
- · Bad: because [argument c]
- ... <!- numbers of pros and cons can vary →

Links <!-- optional -→

- [Link type] [Link to ADR] <!-- example: Refined by [ADR-0005](0005-example.adoc) ---
- ... <!- numbers of links can vary →

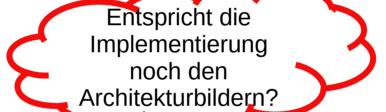


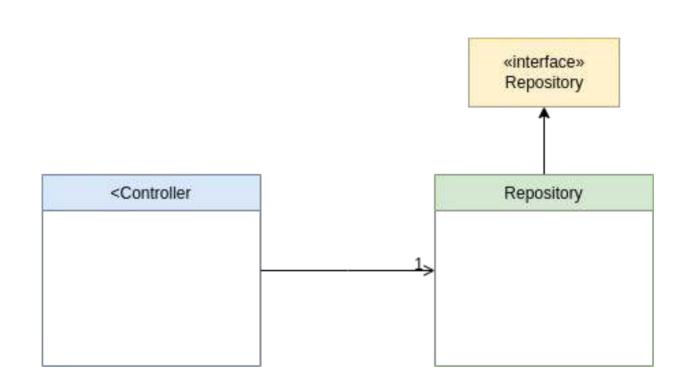


Viele ADR Templates im Netz

- ADR template by Michael Nygard (simple and popular)
- ADR template by Jeff Tyree and Art Akerman (more sophisticated)
- ADR template for Alexandrian pattern (simple with context specifics)

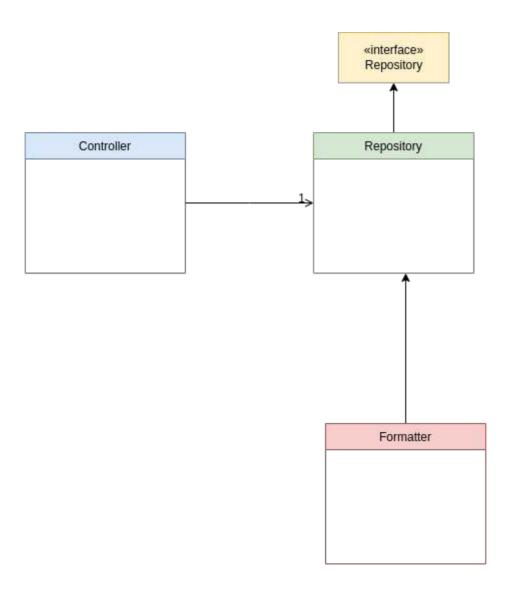
- ADR template for business case (more MBA-oriented, with costs, SWOT, and more opinions)
- ADR template MADR (more Markdown)
- ADR template using Planguage (more quality assurance oriented)







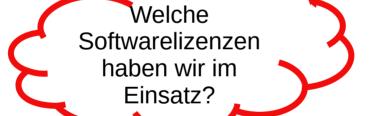
```
@AnalyzeClasses(packages =
{"org.springframework.samples.petclinic.owner", "org.springframework.samples.petclinic.vet"},
    importOptions = ImportOption.DoNotIncludeTests.class)
public class ControllerRepositoryArchTest {
    @ArchTest
    ArchRule relation = classes()
        ,that(),haveNameMatching(".*Controller")
        .should().accessClassesThat().haveNameMatching(".*Repository");
   @ArchTest
    ArchRule controllerAnnotation = classes()
        .that().haveNameMatching(".*Controller")
        .should().beAnnotatedWith("org.springframework.stereotype.Controller");
   @ArchTest
    ArchRule repositoryDefinition = classes()
        .that().haveNameMatching(".*Repository")
        .should().beAnnotatedWith("org.springframework.stereotype.Repository")
        .orShould().beAssignableTo("org.springframework.data.repository.Repository");
}
```



```
@AnalyzeClasses(importOptions = ImportOption.DoNotIncludeTests.class)
public class ControllerRepositoryFreezeArchTest {
    @ArchTest
    ArchRule relation = FreezingArchRule.freeze(classes()
        .that().haveNameMatching(".*Repository")
        .should().onlyBeAccessed().byClassesThat().haveNameMatching(".*Controller"));
}
```

```
// archunit.properties

freeze.store.default.allowStoreCreation = true
archRule.failOnEmptyShould = false
```



Abhängigkeiten haben wir im Einsatz?

Welche

"Schnelle Küche"

mit Maven Boardmitteln

mvn dependency:analyze-report

Verwendete und deklarierte Abhängigkeiten

cache-api 1.1.1

ArtifactId

spring-test

spring-core

spring-webmyc

spring-context

jakarta.validation-api

spring-web

hamcrest

org.springframework.boot spring-boot-autoconfigure

junit

org.springframework.data spring-data-jpa

org.springframework.boot spring-boot-test

asserti-core

mockito-core

spring-beans

spring-tx

spring-orm

jakarta.persistence-api

archunit-junit5-api

jakarta.xml.bind-api

ArtifactId Version Scope Classifier Type Optional

false false

jar

2.1

3.1.0

1.0.1

2.3.2

5.2.0

org.webjars

org.webjars

com.tngtech.archunit

5.2.0 Copyright @ 2022, All Rights Reserved.

compile

Abhängigkeitsanalyse

GroupId

GroupId

org.springframework

org.springframework

org.springframework

org,springframework

org.springframework

iakarta.validation

org.hamcrest

org.asserti

org.mockito

jakarta.persistence

org.springframework

com.tngtech.archunit

org.springframework

org.springframework

jakarta.xml.bind

junit

iavax.cache

com.tngtech.archunit archunit	1.0.1	test
Verwendete aber undeklan	rierte A	Abhängigkeiten

org.springframework.data spring-data-commons

org.springframework.boot spring-boot

Unverwendete aber deklarierte Abhängigkeiten

GroupId ArtifactId org.springframework.boot spring-boot-starter-actuator

5.2.0

Version 2.2.0.RELEASE compile

org.springframework.boot spring-boot-starter-cache

2.2.0.RELEASE compile org.springframework.boot spring-boot-starter-data-jpa 2.2.0.RELEASE compile

org.springframework.boot spring-boot-starter-web 2.2.0.RELEASE compile 5.2.0 org.springframework.boot spring-boot-starter-thymeleaf 2.2.0.RELEASE compile org.springframework.boot spring-boot-test-autoconfigure 2.2.0

org.springframework.boot spring-boot-starter-test

2.2.0.RELEASE test org.hsqldb 2.5.0 hsaldb

mysql mysql-connector-java

8.0.18

ehcache

3.13. org.ehcache webjars-locator-core

3.8.1 2.2.0 org.webjars 0.41

org.webjars jquery 2.2.0

jquery-ui

bootstrap

archunit-junit5

org.springframework.boot spring-boot-devtools

compile compile 2.2.4 compile

2.2.0.RELEASE compile

1.11.4

3.3.6

1.0.1

iar jar jar

false false jar

Classifier Type Optional

jar

jar

jar

jar

iar

jar

jar

iar

jar

jar

jar

false

Scope

runtime

runtime

compile

compile

test

false false

mvn license:license-list

```
...
[INFO] Available licenses :
 * appl v3 : GNU Afferg General Public License (AGPL) version 3.0
 * apache v2 : Apache License version 2.0
 * bsd 2 : BSD 2-Clause License
 * cddl_v1 : COMMON DEVELOPMENT AND DISTRIBUTION LICENSE (CDDL) Version 1.0
 * epl only v1 : Eclipse Public License - v 1.0
 * ept only v2 : Eclipse Public License - v 2.0
 * epl v1 : Eclipse Public + Distribution License - v 1.0
 * epl v2 : Eclipse Public License - v 2.0 with Secondary License
 * eupl v1 1 : European Union Public License v1.1
 * fdl v1 3 : GNU Free Documentation License (FDL) version 1.3
 * apl v1 ; GNU General Public License (GPL) version 1.0
 * apl v2 ; GNU General Public License (GPL) version 2.0

    apl v3 : GNU General Public License (GPL) version 3.0

 * lopt v2 1 : GNU General Lesser Public License (LGPL) version 2.1
 * lgpl v3 : GNU General Lesser Public License (LGPL) version 3.0
 * mit : MIT-License
[INFO] -----
[INFO] BUILD SUCCESS
[INFO] -----
IINFO1 Total time: 6.328 s
[INFO] Finished at: 2022-12-12T19:42:48+01:00
```

mvn license:third-party-report

Overview

This report summarizes all third-party dependencies of the project.

π of total dependencies 121 # of dependencies with license declared in their pom 121 # of dependencies with no license in their pom, but filled in the third-party missing file 0 4 of dependencies with no license at all

Third-parties list

Status	GroupId:ArtifactId:Version	Scope	Classifier	Type	License(s)
	antheanthe2.7.7	compile	SET PRODUCTION	jar	BSD License
9	ch.qos.logback:logback-classic:1.2.3	compile		jar	Eclipse Public License - v 1.0 GNU Lesser General Public License
9	ch.qos.logback:logback-core:1.2.3	compile		jar	Eclipse Public License - v 1.0 GNU Lesser General Public License
	com.fasterxml:classmate:1.5.0	compile		bundle	The Apache Software License, Version 2.0
9	com.fasterxml.jackson.core:jackson-annotations:2.10.0	compile		bundle	The Apache Software License, Version 2.0
	com.fasterxml.jackson.core:jackson-core:2.10.0	compile		bundle	The Apache Software License, Version 2.0
	com.fasterxml.jackson.core:jackson-databind:2.10.0	compile		bundle	The Apache Software License, Version 2.0
	com.fasterxml.jackson.datatype:jackson-datatype-jdk8:2,10.0	compile		bundle	The Apache Software License, Version 2.0
	con:fasterxml.jackson.datatype:jackson-datatype-jsr310:2.10.0	compile		bundle	The Apache Software License, Version 2.0
	com.fasterxml.jackson.module:jackson-module-parameter-names:2.10.0	compile		bundle	The Apache Software License, Version 2.0
	com. jayway, jsonpath; json-path; 2.4.0	test		jar	The Apache Software License, Version 2.0
	com.sun.istack:istack-commons-runtime:3.0.8	compile		jar	Eclipse Distribution License - v 1.0
	com.sun.xml.fastinfoset;FastInfoset;1,2,16	compile		jar	Apache License, Version 2.0 Eclipse Distribution License - v 1.0
	com.tngtech.archunit:archunit:1.0.1	test		jar	BSD The Apache Software License, Version 2.0
-	com.tngtech.archunit:archunit-junit5:1.0.1	test		jar	The Apache Software License, Version 2.0
	com.tngtech.archunit:archunit-junit5-api:1.0.1	test		jar	The Apache Software License, Version 2.0
	com.tngtech.archunit:archunit-junit5-engine:1.0.1	test		jar	The Apache Software License, Version 2.0
9	com.togrech.archunit:archunit-junit5-engine-api:1.0.1	test		jar	The Apache Software License, Version 2.0
	com.vaadin.external.google:android-json:0.0.20131108.vaadin1	test		jar	Apache License 2.0
1	tom.zaxxer:HikariCP:3.4.1	compile		bundle	The Apache Software License, Version 2.0

Neuer Silvet Bullet?

SBOM



High-Level Object Model



License Compliance

```
...
<?xtl version='1.0' encoding='UTH-8'?>
-sbor entire="http://cyclonedx.org/schene/bon/1.4"
    sertalkumber="wnn:uuld:3e571887-3956-4115-a361-a58921a69b78"
    Verstore" "
    <components>
       <component type="library">
           *group*org.acmes/group*
           sname>card-verifier
           sversion=1.8.2
           still censess
               ki Inte component has an SMOX license expression in
               dexpression=LPL-2.0 CR GPL-2.9 WITH Classpath-exception-2.0=/expression=
           e/licensess
       s/components
        *comparent type-'library'>
           <group>com:gxanple=/group>
           sname autils/names
           dverstorp2.W.Geyverstorp-
           «licenses»
                   *1-- This component has a license make
                   with optional text --
                   mare>Example, Inc. Convertial Licenses/manes
                   <text content-type='text/olain'</pre>
encacing- "agas64" > V6nLiHB. eH0gZn0yTHBoZS8Fc0FtcGxLLCB3bg?uTFNv0yTLcg8pYwAgTG112W5zZ5Bgb2VzT6n1c
カリーペ/カロスカン
               %/licenses
           «/Hirenses»
       </corponents>
-0/100F05
```

Dependency Graph

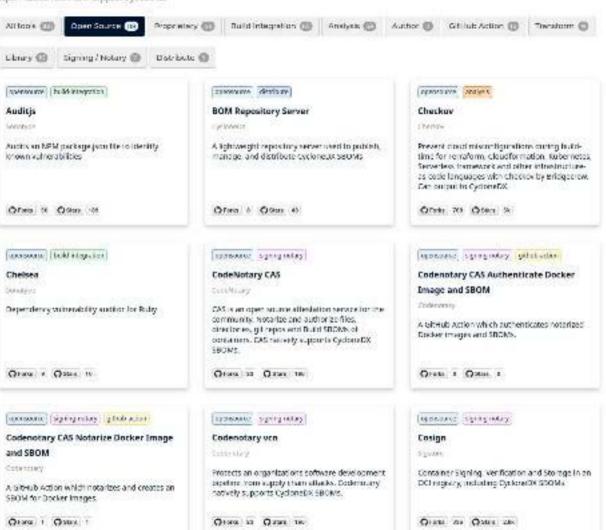
```
...
<?xnl version="1.%" encoding="UTF-8"?>
sbon knins='http://cyclonedx.org/schena/bon/1.4'
     seria Number-"urn:uuid:3e671687 3956-41f9-a30f-a58921a69679*
     version=1/8
    one adalas
        el -- The commonent for which this 50M describes -->
       <component type='application' non-ref='acmr-app'>
            sname>Acme Applications/name>
            everstors9.1.1%/verstors
       -s/component>-
    %/netadata>
    <components>
       scomponent type='framework' bom ref='pkg:naveg/prg.arme/web framework@l.0.0'>
            *group*org.acmes/group*
            khame>web-framework</name>
            <version>1.0.0/version>
           sportopkgrmaven/onglacme/web-framework@1.8.64/punts
       </components
        scongogent type-'library' bom ref-'akg:mnyen/acg.arme/persistence33.1.8'>
            *group*org.acme*/group*
            kname/berststencek/name/
           <version>3.1.0
           spurlapkg:maven/org.ecne/persistenceg3.1.8s/ourta-
       </corporaent>
        <component type='lthrary' bon ref='skg:mnyrs/srg.acms/common utilg3.8.00'>
            <group>org.acme</group>
            knamescommon-utilis/names
           «version»3.0.%«/version»
           spurt*pkgmaven/org.acme/common-utilg3.0.%*/gurl>
        </components
    s/components>
```

Dependency Graph

```
<dependenctes>
       KI-- Direct dependencies of the data application -->
       <dependency ref='acre-app'>
           -dedendency ref='pkgasaven/org.acre/web-franeworkg1.0.3"/>
           *draendracy ref='pkg:maser/org.acre/mersistence@3.1.0'/>
       «/dependency»
       k!— All other describes, relationships ->
       <dependency ref='oko:mayen/oro.acme/web-frameworkx1.8:0">
           <dependency ref='pkg:maven/org.acre/common-utilg3.0.0'/>
       e/dependency>
       sdependency rof='pkg:neven/org.acme/persintence33.110'>
           *dependency ret+'pkg:moven/org.acre/common utili83.0.0'/>
       */dependency
       sdependency rel='akg:naven/arg.acne/common-utile3.8.0'/>
   </rependencies>
</doi:
```

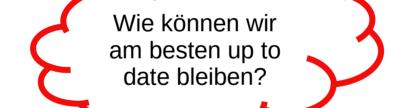
Tool Center

Open source cooks that support Eyekmettis



mvn cyclonedx:makeAggregateBom

```
...
[INFO] Scanning for projects...
LINEGI
         s org.springframework.samples:spring perclinic >
TIMEGI
[INFO] But ofthe petalthic 2.2.8.BUILD-SWAPSHOT
TIME 01
[INFO] --- cyclonedx-mayen-plucin:2.7.3:makeAcgregateBom (default-clt) % spring-petclinic ---
(INFO! CycloneDX: Parameters
LINEGI -
[INFO] schemaVerston : 1.4
[INFO] includeBomSertatNumber : true
[INFO] includeCompileScope : true
[INEG] includeProvideoScope : true
[INFO] includeRuntimeScope : time
[INFO] includeTestScope : Felse
[INFO] includeSystemScope : true
[INFO] includeLicenseText : false
[INFO] autoulReactorProjects : true
[INEG] outputFormat : all
[INFO] outputName : bom
[INFO] CycloneDX: Treating BOM
[INFO] CycloreDX: Writing BCN (XML): /home/sparsick/dev/workspace/maintenance-demo/target
/non.xnl
[INFO] CycloneDX; Validating BDN (XML): /home/sparsick/dev/workspace/maintenance-dems/target
Zaon, xnl
[INFO] CycloneDX: Writing BCM (JSDM): /home/sparsick/dev/workspace/maintenance-demo/target
/bon. jsan
[INFO] CycloneDX; Validating BON (JSON); /hone/sparsick/dcy/workspace/maintenance-deng/target
700m, 150m
[WARNING] Unknown keyword additionalItems - you should define your own Meta Schema. If the
keyword is irrelevant for validation, just use a NonValidationKeyword
[INFO]
[INFO] BUILD SUCCESS
INFO! -----
[INFO] Total rune: 3,349 s
[INFO] Finished at: 2022-12-12T19:54:08:01:00
```





Language -

● Today 🟠 1,850 😲 TIN 🔘 352.05 insular meet the pt 📫 85 Updated 5 incorrespo

Pinned.

☐ dependabot-core | rubik de Dependabana update 78 creation lago. Feedback mitpol/github.com. roogs/community/oinnussions/categories/code-senumy Oney Onle Pin

☐ Repositories

Q. Find a repository...

dependabot-core Picks

de Dependabot's Lipdate PR creation logic. Feedback: https://github.com/orgs/community/discussions inategories and esecurity

dependabot-actions-workflow / Pablic Example workflow for updating Dependahot pull requests:

dependabot-script Public A simple script that demanstrates how to use Dependabet Core

● nacy ☆ 21 V 16 ⊙ 5 11 2 Sydeted Thours ago

● 8005y 🏗 420 👁 Mil 🖞 234 🕦 34 🖺 10 Updoted 3 days ago

cli Poste

Altopi for testing and debugging Dependabot update jobs.

● Go ☆ 22 本MIT 学 2 ② 8 禁 2 Updated 6 days ago



Supported Platforms

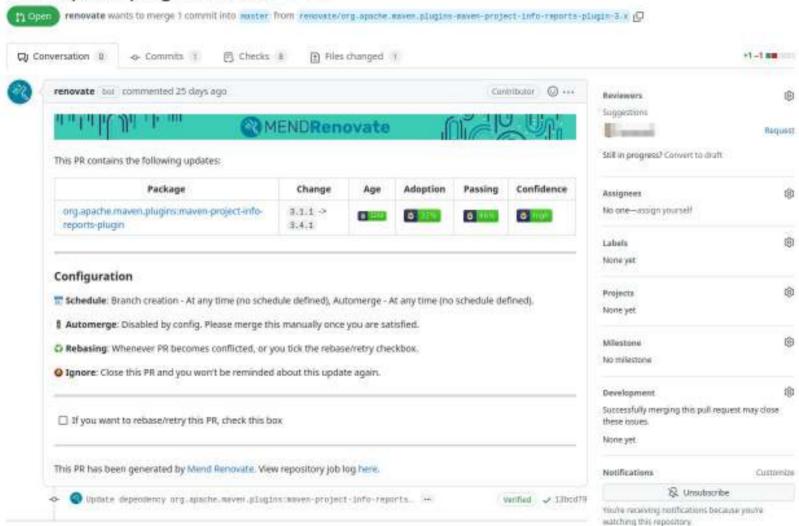
Renovate works on these platforms:

- GitHub (.com and Enterprise Server)
- GitLab (.com and CE/EE)
- Bitbucket Cloud
- Bitbucket Server
- Azure DevOps
- AWS CodeCommit
- Gitea

	Label Issues and pull requests for new contributo Now, GitHub will help potential first-time contributors discover issues labeled of		Dismis
Filters	Q is:pr is:open	O Labels 7	New pull reque
Filters	→ Q is pe acopen	C Labels 7	New pair reque
□ 1	13 Open > 149 Closed Author + Label + Projects	- Milestones - Reviews -	Assignee - Sari
□ 1	Update dependency org.apache.maven.plugins:maven-project-info-reports-plugin to v3.4.1	*	
	Update dependency org.apache.maven.plugins:maven-jxr-plugin to v3.3.0 ✓ #309 opened 26 days ago by renovate(bot) ⑤ 1 task		
O 1	Update dependency org.apache.maven.plugins:maven-javadoc-plugin to v3.4.1 ✓ #388 opened 26 days ago by renovate (bot.) □, 1 took		ţ
□ 1	Update dependency org.eclipse.platform:org.eclipse.osgi to v3.18.200 ✓ A292 opened on May 31 by renovate: bot □ 1 task		
□ 1	Update dependency org.codehaus.plexus:plexus-component-metadata to v2.1.1 ✓ #291 opened on May 31 by renovate: bot)		c
	Update dependency org.codehaus.plexus:plexus-component-annotations to v2.1.1 ✓ #290 opened on May 31 by renovate [bot] [F] 1 task		C
_ I	Update dependency org.apache.maven.plugins:maven-plugin-plugin to v3.7.0 #284 opened on Dec 16, 2021 by renovate (hot) [2], 1 task		ç
	Update dependency org.apache.maven.plugin-tools:maven-plugin-annotations to v3.7.0		Ç

Update dependency org.apache.maven.plugins:maven-projectinfo-reports-plugin to v3.4.1 #310





Dependency Dashboard #278



🖪 29 tasks | renovate | bot | opened this issue on Sep 14, 2021 - 0 comments



renovate but commented on Sep 14, 2021 * edited *	Assignees	*
This issue lists Renovate updates and detected dependencies. Read the Dependency Dashboard docs to learn more,	No one—assign yourself	
Rate-Limited	Labels None yet	8
These updates are currently rate limited. Click on a checkbox below to force their creation now.		8
☐ Update dependency org.apache.maven.plugins:maven-site-plugin to v3.12.1	Projects	as as
Update dependency org.apache.maven.wagon:wagon-ftp to v3.5.2	None yet	
☐ Update dependency org.apache.maven.wagon.wagon ssh to v3.5.2	Milestone	8
Update dependency org.apache.rat-apache-rat-plugin to v0.15	No milestone	
☐ Update dependency org.assertj:assertj-core to v3.23.1	140 milestone	
☐ Update dependency org.twdata.maven:mojo-executor to v2.4.0	Development	S
Update maven.version to v3.8.6 (org. apache.maven.come , org.apache.maven.artifact org.apache.maven.maven.plugin api , org.apache.maven.maven.maven.maven.maven.maven.maven.maven.maven.maven.maven.maven.compat)	Create a branch for this issue or link a gulf reques	
Update release-drafter/release-drafter action to v5.21.1	Notifications	Customiz
☐ Update actions/cache action to v3	S. Unsubscribe	
☐ Update actions/checkout action to v3	You're receiving notifications because you're	
☐ Update actions/setup-java action to v3	watching this repository.	5 F 3 K C C (T C C C C C C C C C C C C C C C C
☐ Update codecov/codecov-action action to v3		
□ Update dependency biz.aQute.bnd:biz.aQute.bndlib to v6	0 participants	
☐ Update dependency org.apache.maven.plugins:maven-gpg-plugin to v3		
☐ Update dependency org.mockito:mockito-inline to v4	∆ Lock conversation	
Update tycho.version to v3 (major) (org.eclipse.tycho:sisu-eguznox-launching , org.eclipse.tycho:tycho-core)		
☐ 🚅 Create all rate-limited PRs at once 🔐	☼ Pin issue (1)	
	-> Transfer Issue	

Self Hosting

- Fertige GitHub Action und GitLab Runner
- Docker Image
- Mend Renovate On-Premises
- Mend Remediate (Kommerziell)

```
# Renovate Global Config
$ cat ./renovate/config.j
module.exports = {
 repositories: ["sparsick/maintenance-demo"],
 dryRun : "true",
 prCommitsPerRunLimit: "5"
};
# Renovate Per Reposiory Config
$ cat renovate.json
 "extends": [
    "config:base"
```

```
S docker run -rm -v *$PWD/.renovate/config.js:/usr/src/app/config.js* -e RENOVATE_TOKEN=apiloken renovate/renovate
INFO: Repository started (repository-sparsick/maintenance-demo)
       "renovateVersion": "34.55.0"
INFO: Dependency extraction complete [repository=sparsick/maintenance-demo. baseBranch=master]
       "stats": {
         "managers": {
          "docker-compose": ["fileCount": 1, 'depCount": 1].
           "maven": {"fileCount": 1, "depCount": 16}
         "totat": {"ItteCount": 2, "depCount": 17}
INFO: DRY-RUN: Would commit files to branch renovate/org.asciidoctor-asciidoctorj-diagram-1.x (repository-sparsick/maintenance-demo,
branch=renovate/org.asciidoctor-asciidoctorj-diagram-1.x)
INFO: DRY-RUN: Would ensure Dependency Dashboard (repository-sparsick/maintenance-demo)
       "title": "Dependency Dashboard"
INFO: DRY-RUN: Would save repository cache. (repository=sparsick/maintenance-demo)
INFO: Repository finished (repository=sparsick/maintenance-demo)
       "cloned": True,
       "durationMs": 52013
```

Was ist bei Updates, wo ich viel Code anpassen

muss/will? Java 8 → Java 11 JUnit4 → JUnit5

Rewrite

Large-Scale Automated Source Code Refactoring



```
<plugin>
   <groupId>org.openrewrite.maven</groupId>
   <artifactId>rewrite-maven-plugin</artifactId>
   <version>4.38.0
   <configuration>
       <activeRecipes>
           <recipe>org.openrewrite.java.migrate.Java8toJava11
       </activeRecipes>
   </configuration>
   <dependencies>
       <dependency>
           <groupId>org.openrewrite.recipe</groupId>
           <artifactId>rewrite-migrate-java</artifactId>
           <version>1.13.0
       </dependency>
   </dependencies>
</plugin>
```

```
...
# myn rewritere toccvor
THE I Seem to for processing
[CHEO]
[INFO] ------ org.springframework.samples/spring-petclinic ------
"FW 91 doubtere petalinic 2.2.8.99TED-94989DE
INFOL
"IMPO] --- rewrite-mayon-plugin:4,38,3mdirooyer (default-cit) d spring-petellric ---
'19001 Available Recipes:
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                     org.openrearite.just.steamup.AddSerialVersion.NuToSertallzable
[CHKI]
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                     org.opencearing.laws.ols.cyte.eddSuppressionEarTilecalReflections/orlogsPlumin
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[CHMI]

[IMFO] BUTLD SUCCESS

[1910] lotal time: 4,708 s

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[INFO] Found 416 evattable recipes and D evattable styles. [INFO] Conflicted with 1 ective recipes and 0 extine styles.

79601

Beispiel: Java 8 nach Java 11

```
...
       splugin>
          <groupId>org.openrewrite.maven
          <antifactId>rewrite-mayen-plugins/artifactId>
          <version>4.38.0
          <configuration>
              cactiveRecipes>
                 cipe>org.openrewrite.java.migrate.Java8toJavall/recipe>
              </configuration>
          <dependencies>
              sdependency:
                 <group1d>org.ppenrewrite.recipe</group1d>
                 sartifactId>rewrite-migrate-javas/artifactId>
                 <version>1.13.0
              </dependency>
          </dependencies>
       :/olugin>
```

```
$ myn rewrite: run
[INFO] --- rewrite-maven-plugin:4.38.0:run (default-cli) @ spring-petclinic ---
[INFO] Using active recipe(s) [org.openrewrite.java.migrate.JavaStoJavall]
[IRFO] Using active styles(s) []
[INFO] Validating active recipes...
[TMFO] Project [petclinic| Resplying Pors...
[INFO] Project [petclinic| Parsing Source Files
[INFO] Running recipe(s)...
[WAHNING] Changes have been made to pom.xml by:
[WARNING]
             org.openrewrite.java.digrate.Java8toJavall
[WARNING]
                 org.goenrewrite.java.migrate.javax.AddJaxbDependencies
[WARNING]
                      org.openrewrite.java.migrate.javax.AddJaxbRuntime: {runtime=sun}
[WARNING]
                 org.opennewrite.java.migrate.Add1DeprScamPlugin: {release=}
[ WARN TAG]
                 org.asenrewrite.java.migrate.wro4j.UpgradeWro4jMavenPluginVersion
[WARNING]
                      org.ppenrewrite.maven.UpgradePluginVersion: {group1d-ro.isdc.wro4i.
artifactio-wrodi-maven-plugin, newVersion-1.10.1}
[WARNING]
                 org.openrewrite.java.migrate.jacoco.UpgradeJaCoCoMavenPluginVersion
[WARNING]
                      org.openrewrite.maven.UppradePtugInVersion: { groupId=org.tacpco.
artifartTo=jacoco-mavem-plogin, newVersion=0.8.8}
```

org.openrewrite.maven.ChangePropertyValue: {key-java.version.newValue-11,

org.ocenrewrite.java.migrate.lavaVersion[]

[INFG]

LWARN TNG:

addIfMissing-false)

[INFO] BUILD SUCCES

[INFO] Total time: 34,463 s

[WARNING] Please review and connit the results.

[INFO] Finished at: 2022-12-13711:07:24:01:00

(TNFO)

[WARNING]

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```

Beispiel: Java 11 nach Java 17

```
$ mvn rewrite:discover | grep Java17
[INFO] org.openrewrite.java.migrate.UpgradeJava17
```

```
...
S myn rewrite:run
[INFO] -- rewrite-maver-plugin:4.38.0:rum (default-cli) & spring-petclinic --
[IMEG] Using active recipe(s) [org.openrewrite.java.migrate.UpgradeJaval7
[INFO] Using active styles(s) []
[INFO] Valldating active recipes...
[INFO] Project [petalinia] Resolving Poms...
[INFO] Project [petalinic] Parsing Source Files
[INFO] Running regise(s)...
[MARGING] Changes have been made to pon. onl by:
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              aco.ogenrewrite.javz.nigrafg.DagrageJaval7
[WARRIENG]
                  org.openrewrite.lava.wisrare.Java@tcJavall
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                      org.coenrewrite.lava.ntorate.lavax.AddJaxbDependencies
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                          ord.openrewnite.java.nigrate.javax.AddJaxbRontine: truntine-sunj
[WARNING]
                      org.spenrewrite.java.migrate.wrc4j.UpgradeWrc4jNavenPluginVersion
                          arc.openrowrite.mavon.bagradePluginversion; {groupId=ro.isdc.wro4}, artifactEd=wro4i-mavor-plugin.
[WARNING]
newVarsion-1,10,1)
EWARSITEG?
                      acq.openrewrite.javo.migrate.lavaVersion11
DAMPHING!
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[WATENIEKG]
                  org.openrewrite.java.migrate.javaVersion17
PAMERING!
                      org.opennewrite.mayen.ChancePropertyValue: {key=java.version, newValue=17, addIfMissinc=False}-
[MARAING] Changes have been made to src/test/jave/org/springframework/samples/petclinic/ewner/OwnerControllerTests.java by:
[MARNING]
              pro.ppenrewrite.java.nigrate.lpgramelava17
[WARNENG]
                  org.opennewrite, java.migrate.JavaBfsJavall
                     org.openrawrite.java.migrate.util.JavaUtilAPIs
EWARNITHG.
[WARNIEKG]
                          ord.openrewrite.java.migrate.util.MigrateCollectionsSingletonList
                          gro.operrewrite.lava.migrate.util.MigrateCollectionsSingletonSet
(WARNING)
PMMRSING! Please review and commit the results.
[INFO] BOTO SUCTESS
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[INFO] Total time: 32,266 s
[INFO] Finished at: 2822-12-13711:46:21+01:60
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FINIOF Running org.springframework.samples.petclinic,service.tlinicService!ests
[LRROR] Tests runs I, Failures: 0, Errors: 1, Skibbed: 0, Time elapsed: 0 s << [AILURE! - in
org.springframework.samples.petclinic.scryice.tlinicServiceTests
[ERROR] initializationError Time elapsed: 3 s <= ERROR:

crg.sprinofrarework.beams.tactory.BeamSet.hitterStoreException: Failed to read candidate component class: file [/hare/sparsick /dev/amrkspace/mointenance darm/target/fest classes/amg/springframework/samples/petclinic/service/ClinicServiceTests.class): nested exception is angleoringframework.core.RestedIDException: ASN ClassDeader failed to parse class file probably due to a new lava class file version that isn't supported yet: file l/home/sparsion/dev/amrkspace/mointenance-demn/target/test-classes /org/springframework/samples/petclinic/service/ClinicServiceTests class; nested exception is java.lang.IllegalArgumentException: traipported class file major version &1
tested by/ org.springframework.core.RestedIDException: ASM ClassReader failed to parse class file - probably due to a new Java class

major version 61 Caused by: days.lang.Illego.ArgumentException: Unsugmented class file major version 61

| INFO| Pornting org.springframework.samples.petclinic.PetclinicIntegrationTests | IEPRORI Tests run: 1, failures: 0, Errors: 1, Skipped: 0, Time elapsed: 0 s and FAILURE! - in org.springframework.samples.petclinic.PetclinicIntegrationTests | IEPRORI | intralizationError | Time elapsed: 0 s and ERRORI

cro.springfrarework.beams.factory.BeamDofunitionStoreException: Hailed to read candidate component class: file [/hore/sparsick /dev/workspace/maintenance data/target/test classes/org/springfranework/samples/petclinic/PetclinicIntegrationTests.class]; mosted exception is any springfranework.core.RestedIDException: ASM ClassReader failed to parse class file probably due to a new Java class file version that isn't supported yet: file [/hore/spansion/dev/workspace/maintenance-demo/target/test-classes /org/springfranework/samples/petclinic/FetclinicIntegrationTests.class; nested exception is java.lang.FilegalArgumentEnception. Unsupported class file major were on 61 Caused by: org.springfranework.core.RestedIDException: ASM ClassReader failed to barse class file - probably due to a new Java class.

file version that isn't supported yet: file [/hone/sparsick/dev/workspace/maintenance-demo/target/test-classes/org/springframework /samples/petclinic/Petclinic/PetclinicInternation[ests.class]: mested exception is java.lang.[]legalArgumentException: trsupported plass file

fule version that isn't supported yet; fule [/hene/sparsick/dev/workspace/maintenance-deno/target/test-classes/org/springframework /samples/petalimic/service/ClimicServiceTests.class]; mosted exception is lava.lang.IllegalArgumentException; Unsupported class file

major version <u>UI</u> Caused by: java.lang.IllegalArgumentException: Unsupported class file major version <u>UI</u>

Beispiel: JUnit4 nach JUnit5

```
calugia-
  sqroupId>org.openrewrite.maven
  <artifactld>rewrite-maven-plugin</artifactld>
  cversion>4.38.0c/version>
  <configuration>
    <activeRecipes>
      <reclpe>org.openrewrite.java.spring.boot2.SpringBoot2JUnit4to5Migration</reclpe>
    </activeRecipes>
  </configuration>
  *dependencies>
    «dependency»
      <aroupId>org.apenrewrite.recipe</graupId>
        <artifactId>rewrite-springs/arttfactId>
        <version>4.29.0
    ×/dependency>
  </dependencies>
s/plugin>
```

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     o twine Vethepository vels:
     public world testFineAtilia throws Exception ?

    outdirestFinds[ ]: throws Exception 4.

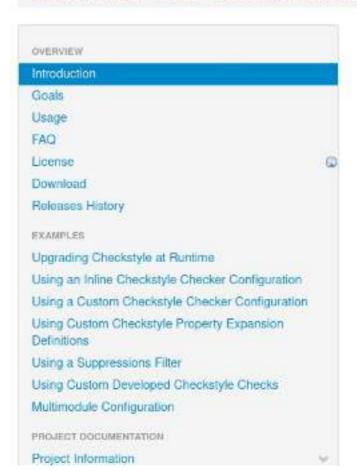
         ents, unitt. (1;
         wets. "IndAULIA: // serves from cache-
```

Wie vermeide ich, dass "alter Style" wieder in

meinen Code reinkommt?



Apache Maven / Plugins / Apache Maven Checkstyle Plugin / Introduction 👺



Apache Maven Checkstyle Plugin

The Checkstyle Plugin generales a report regarding the code style used by the developers. For me This version of the plugin uses Checkstyle 9.3 by default and requires Java 8. But you can upgrad The plugin can be configured in the project's POM. Predefined rulesets available for use in this ver-

Goals Overview

The Checkstyle Plugin has three goals:

- . checkstyle checkstyle is a reporting goal that performs Checkstyle analysis and generates a re-
- · checkstyle:checkstyle-aggregate is a reporting goal that performs Checkstyle analysis and ger
- . checkstyle:check is a goal that performs Checkstyle analysis and outputs violations or a count

Major Version Upgrade to version 3.0.0

Please note that the following parameters have been completely removed from the plugin configur.

- · sourceDirectory : USB sourceDirectories insfead;
- testSourceDirectory : use testSourceDirectories inslead.

Usage

General instructions on how to use the Checkstyle Plugin can be found on the usage page. Some



Spotless: Keep your code spotless with Maven

mavencentro com diffplug spotiess:spotiess-maven-plugin javadoc yes changelog 2.28.0

circled passing offer that roomse apache

Spotless is a general-purpose formatting plugin used by 4,000 projects on GitHub (August 2020). It is completely à la carte, but also includes powerful "batteries-included" if you opt-in. Plugin requires a version of Mayen higher or equal to 3.1.0.

To people who use your build, it looks like this:

```
user@machine repo % mvn spotless:check
[ERROR] > The following files had format violations:
[ERROR]
        src\main\java\com\diffplug\gradle\spotless\FormatExtension.java
[ERROR]
         -\t\t----if-(targets_length-==-0)-[
         +\t\tif-(targets.length-== 0) {
[ERROR]
        Run 'mvn spotless:apply' to fix these violations.
user@machine repo % mvn spotless:apply
[INFO] BUILD SUCCESS
user@machine repo % mvn spotless:check
[INFO] BUILD SUCCESS
```

Modernizer Maven Plugin

mayer-central v2.5.0

Modernizer Maven Plugin detects uses of legacy APIs which modern Java versions supersede. These modern APIs are often more performant, safer, and idiomatic than the legacy equivalents. For example, Modernizer can detect uses of Vector Instead of ArrayList, String.getBytes(String) Instead of String.getBytes(Charset), and Guava Objects.equal instead of Java 7 Objects.equals. The default configuration detects over 200 legacy APIs, including third-party libraries like Apache Commons, Guava, and loda-Time.

Configuration

To run Modernizer, add the following to the stanza in your pom.xml then invoke mvn
 modernizer:modernizer:

```
<plugin>
  <groupId>org.gaul</groupId>
  <artifactId>modernizer-maven-plugin</artifactId>
  <version>2.4.0</version>
  <configuration>
   <javaVersion>8</javaVersion>
  </configuration>
  </plugin>
```

Allows to parse Java byte code to find invocations of method/class/field signatures and fail build (Apache Ant, Apache Maven, or Gradle).

maven-central v3.4 build passing

Documentation

Please refer to the Github Wiki & Documentation.

The checker is available as Apache Ant Task, Apache Maven Mojo, and Gradle plugin. In addition there is a command line tool (CLI):

- Apache Ant
- Apache Maven
- Gradle
- Command Line

This project uses Apache Ant (and Apache Ivy) to build. The minimum Ant version is 1.8.0 and it is recommended to not have Apache Ivy in the Ant lib folder, because the build script will download the correct version of Ivy automatically.

Was ist mit Abhängigkeiten, die nicht mehr

genutzt werden?



DepClean



What is DepClean?

DepClean automatically cleans the dependency tree of Java projects. It removes all the dependencies that are included in the project's dependency tree but are not actually necessary to build it. DepClean detects and removes all the unused dependencies declared in the pom.xml file of a project or imported from its parent. It can be executed as a Maven goal through the command line or integrated directly into the Maven build lifecycle (CI/CD). DepClean does not modify the original source code of the application nor its original pom.xml.

For a visual illustration of what DepClean can provide for your project, have a look at the companion depcleanweb project.

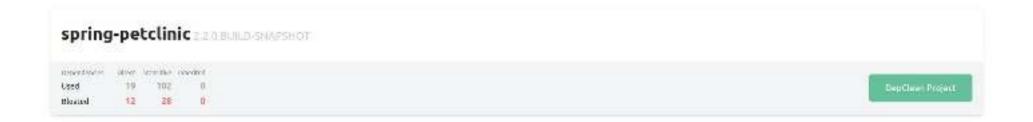
```
...
& run compiler: testCompile
5 ton Se kth.castorcceptlean-neven-pluging 2.8, 3:deptlean -Unrestebrille National Harden - Hurrestebrille National N
[IMFD] - depotesh mayon bluggr: 2.8.3:depotesh (dens.tt-cit! ) soring-petalinic
LIMPOL Starting Depilean dependency analysis
 REPORTAN ANALYSIS RESULTS
USED DIRECT DEPENDENCIES 1/1:
USED INHERITED DEPENDENCIES (0)-
USER TRANSPORTED TO PERCENTES (241):
FOTERTIALLY UNUSED DIRECT DEPENDENCIES (12):
               ors.elmachecels.ache: 3.8. compile (1996)
               org.webiart bootstrap 3.3.6:compile 1646 KB1
               org.webjars:joueny-ut:1 11.4:combile (251 83)
               Gro. Rebians: jouenvi2.2.4: compile (158 KB)
                commons-cut/commons-cut/1.4:compute (52 KB)
                son. Dogrech anchori: :archorit-jun 15:1.8.1:1est (524 bytes)
               ore.springframework.boot.spring boot stanter data (pa.2.2.6.RELEASE.compile (400 bytes)
                ord.springreenowerk.boot:spring-boot-starter-thymolean:2.2.6.RELEASE:compile 1466 bytes!
                one, spring "careaurk, boot capting-poot-at a cersas tractor (2.2, 8, 8FLFASE) compile (465, bytes);
                ore.springframework.boot.spring boot starter cache:2.2.0.RELE45E:comp(le (404 bytes)
                ord.spring(renework.boot:spring-boot-ster.er-web:2,2,0.RLLLASL:conolle (48J bytes)
                ors, apringCraneam k.boot: apring-pool-atm ser-test: 2.2.0.06FE66E: test (482 bytes).
FOTERTIALLY UNUSED INHERITED DEPENDENCIES [6]:
FOLENDINGLY BROSED BANGLIDGE DEFERBERCIES [20]:
[IMFO] Starting deploating tile
[DREO] Adding 25 used transitive dependencies as direct dependencies.
[IMFD] Removing 12 unused direct dependencies.
[INFO] Excluding 20 inused charactive dependencies one-by-one.
[IMFO] NOM debloated successfully
[IMFD] pon-dobloated will file prosted in: /here/sparsick/dev/workspace/maintenance-demo/per-debloated.xx.
Creating depolean-results, ison, please wait...
[IMFN] Japotean-rasults, son file created in: /home/scarsick/des/workspace/ncintenance-dern/tarbet/depoles-results.(son
[IMFO] Analysis done in 8min 12s
DREAL -----
```

[IMFO] BUILD SUCCESS[IMFO]
[IMFO] Total time: 19.598 s

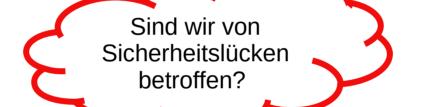
[IHFD]

[TREO] Furtished at: 2622-12-15TH: 22:83:01:68

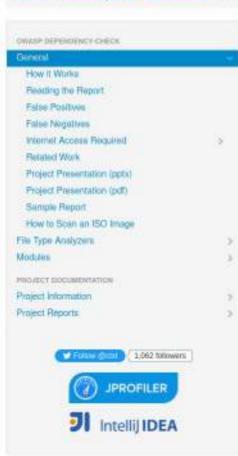
Visualisierung via depclean-web







OWASP Dependency-Check documentation About



About

OWASP dependency-check is an open source solution to the OWASP Top 10 2021 entry: I Analyzer page). Note that some of the analyzers are experimental and may produce more t

The problem with using known vulnerable components was covered in a paper by Jeff Willi vulnerabilities (such as those at the National Vulnerability Database).

More information about dependency-check can be found here:

- . How does dependency-check work.
- . How to read the report

OWASP dependency-check's core analysis engine can be used as:

- . Arr Task
- . Command Line Tool
- . Gradie Plugin
- · Jenkins Plugin
- . Mayen Plugin Mayen 3.1 or newer required
- . SBT Plugin

For help with dependency-check the following resource can be used:

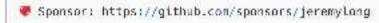
. Open a github issue

Sponsor Development of dependency-check: (**) Sponsor



Dependency-Check is an open source tool performing a best effort analysis of 3rd party dependencies; folso positives and folso negatives may exist in the analysis performed by the tool. Use of the tool and the reporting provided constitutes acceptance for use in an AS IS condition, and there are NO warranties, implied or otherwise, with regard to the analysis or its use. Any use of the tool and the reporting provided is at the user's risk. In no event shall the copyright holder or OWASP be held liable for any damages whatspever arising out of or in connection with the use of this tool, the analysis performed, or the resulting report:

About DDC: https://jeremylong.github.to/DependencyCheck/general/internals.html False Positives: https://jeremylong.github.io/DependencyCheck/general/suppression.html



```
THEC. Finished File Name Analyzer (A seconds)
 IMPO | Finished Jar Analyzer (@ seconds)
  WARKING! We look file exists - this will result to false penatives: please run now install - correspondent
 [SARETNG] So lock file exists - this will result in false negatives; please run one install - correct lock
 %ARETNG1_Analyzing_1/mm/dcterro73eea6a9-5515-4323-5aec-2199ad491c25/check15701359662369539671mp/dcterro73eea6a9-5515-4323-5aec-2199ad491c25/check157013596623669539671mp/dcterro73eea6a9-5515-4323-5aec-2199ad491c25/check157013596623669539671mp/dcterro73eea6a9-5515-4323-5aec-2199ad491c25/check157013596623669539671mp/dcterro73eea6a9-5515-4323-5aec-2199ad491c25/check157013596623669539671mp/dcterro73eea6a9-5515-4323-5aec-2199ad491c25/check157013596623669539671mp/dcterro73eea6a9-5515-4323-5aec-2199ad491c25/check157013596623669539671mp/dcterro73eea66a9-5515-4323-5aec-2199ad491c25/check157013596623669539671mp/dcterro73eea66a9-5515-4323-5aec-2199ad491c25/check157013596623669539671mp/dcterro73eea66a9-5515-4323-5aec-2199ad491c25/check157013596623669539671mp/dcterro73eea66a9-5515-4323-5aec-2199ad491c25/check157013596623669539671mp/dcterro73eea66a9-5515-4323-5aec-2199ad491c25/check157013596623669539671mp/dcterro73eea66a9-5515-4323-5aec-2199ad491c25/check157013596623669539671mp/dcterro73eea66a9-5515-4323-5aec-2199ad491c25/check157013596623669539671mp/dcterro73eea66a9-561666469671mp/dcterro73eea66a9-561666469671mp/dcterro73eea66a9-561666469671mp/dcterro73eea66a9-561666469671mp/dcterro73eea66a9-561666469671mp/dcterro73eea66a9-561666469671mp/dcterro73eea666469671mp/dcterro73eea666469671mp/dcterro73eea666671mp/dcterro73eea666671mp/dcterro73eea66671mp/dcterro73eea66671mp/dcterro73eea66671mp/dcterro73eea66671mp/dcterro73eea66671mp/dcterro73eea66671mp/dcterro73eea66671mp/dcterro73eea66671mp/dcterro73eea6671mp/dcterro73eea6671mp/dcterro73eea6671mp/dcterro73eea6671mp/dcterro73eea6671mp/dcterro73eea6671mp/dcterro73eea6671mp/dcterro73eea6671mp/dcterro73eea6671mp/dcterro73eea6671mp/dcterro73eea6671mp/dcterro73eea6671mp/dcterro73eea6671mp/dcterro73eea6671mp/dcterro73eea6671mp/dcterro73eea6671mp/dcterro73eea6671mp/dcterro73eea6671mp/dcterro73eea6671mp/dcterro73eea6671mp/dcterro73eea6671mp/dcterro73eea6671mp/dcterro73eea6671mp/dcterro73eea6671mp/dcterro73eea6671mp/dcterro73eea6671mp/dcterro73eea6671mp/dcterro73eea6671mp/dcterro73eea6671mp/d
/angular http/2.4.10/package.ison - bosseer, the roce modules observed goes not exist. Please not not install, prior to complex
 dependency-check.
 MARKTNG1 Analyzing / mo/dct-mo/3eea6a9-5615-4323-8a-c-4489ad491c25/check157013596623669509671mp/64/NFTA-TRE/resources/webjars
/angular http/2.4.10/cesting/package, spr' - bowever, the mode polices directory does not exist. Please run 'non-install' prior to
 running dependent v-check
 TRECT Finished book is Parkage Analyzer (0 seconds)
 INFOI Finished Dependency Menging Analyzer (8 second-)
 IMPO: Finished Version Filter Analyzer (6 seconds)
  INCCL Emished First Analyzer 10 seconds)
  INFO! Created CPE Index (1 seconds)
  INFO! Inished CPE Analyzer (3 seconds)
 INFO! Inished false Positive Analyzer (b seconds)
 INCIT Inished EMD CVL Analyzer (8 seconds)
 INFCT Firished RetireUS Analyzer (% seconds)
 [180 C] Finished Schatype 895 Index Analyzer (8 seconds)
 'INFC' Finished Volmerability Suppression Analyzer (O seconds)
 INFO! Thished Dependency Bundling Analyzer (8 seconds)
 [1800] Finished Crused Suppression Rule Analyzer (K seconds)
 INDO Analysis Complete (5 seconds)
 [INFO] Mouting report to: /home/sparsick/cev/workspace/maintenance-demo/tarcet/dependency-check-report.html
 WORKING!
One or more dependencies were identified with known vulnerabilities in petalinie:
bootstrap=3.3.6. har (okg::avascript/bootstrap%3.3.6. okg:mayon/org.web;ars/bootstrap%3.3.6) : CVE-2010-18729, CVE-2818-14640.
CME-2018-14941, CME-2018-14042, CME-2018-20077, CME-2019-8331
   2.55
See the dependency check report for more cetails.
 INFO
 INFC BUILD SUCCESS
 INFC
 IMPG Total time: 8,938 s
```

INFO! Analysis Started

INFO | Finished Archive Analyzer (% seconds)

INFO) Finished at: 2022 12 13713:54:21:61:0

[INFC]



Deposits on Chapter in a second many performance and performance and performance and performance and the position of the posit

How to read the report | Suppressing false positives | Getting Help: github issues

♥ Sponsor

Project: petclinic

org.springframework.samples:spring-petclinic:2.2.0.BUILD-SNAPSHOT

Scan Information (show all):

- dependency-check version: 7.4.1
- Report Generated On: Tue, 13 Dec 2022 13:54:20 +0100
- Dependencies Scarred 161 (117 unique)
- Vuinerable Dependencies: 20
- Vulnerabilities Found: 106
- + Vulnerabilities Suppressed 0
-

Summary

Display: Showing Wulnerable Dependencies (dick to show all)

Water Commence of the Commence						
Dependency	Vulnerability IDs	Package	Highest Severity	CVE Count	Confidence	Evidence Count
bootstrap-3.3 6 jar		oko savasonintootsirapitta 3.6 oko mavantong webjarathoostrapitta 3.6	MEDIUM	6		19
domdi-2.1.1 lat	gre 2.3 a dom4_protect dom4r2.1.1 ********	gkg_maven/mg_dom4ptom4pt2_1_1	CRITICAL	1	Highest	20
hibemate-core-5.4.6.Final.yat	cper2.3 a: hibemate: hibemate_orm 5.4.6 *********	okg;maventorg.nibemate/hibernate-cored/5.4.6.Final	HIGH	2	Low	48
hibernate-validator-6.0 17 Final jar	gre 2.3 a rechat hibernate_validator 6.0.17********	pkg maverylong hibernain validator/hibernate-validator/#6.0.17 Final	MEDIUM	2	Highest	34
tsakts-25.0 jar	cpe 2.3 a: hsqldb:flyperiiq1_database 2.5.0********	oks, maxen/org zsakth/hsakth/12.5,0	CRITICAL	1	Low	41
jackson-databind-2.10.0.rar	coe 2.3 a fasteroni jackson-databad 2.10.0******	sky maven/com fasterami jackson core/lackson-databind/#2.10.0	HIGH	4	Highest	41

Und was mit Docker Images?

```
→ trivy i --ignore-unfixed -o result spring-boot-demo:latest
2022-06-23T09:55:56.244+0200
                                INFO
                                        Vulnerability scanning is enabled
                               INFO Secret scanning is enabled
2022-06-23T09:55:56.245+0200
                                       If your scanning is slow, please try '-- security-checks vuln'
2022-06-23T09:55:56.245+0200
                               INFO
to disable secret scanning
                                        Please see also https://aguasecurity.github.io/trivy/v0.29.2
2022-06-23T09:55:56.245+0200
                                INFO
/docs/secret/scanning/#recommendation for faster secret detection
2022-06-23TM9:55:56.254+0200
                                TNFO
                                        Detected OS: debian
2022-06-23T09:55:56.255+0200
                               INFO
                                        Detecting Debian vulnerabilities...
                                        Number of language-specific files: 1
2022-06-23T09:55:56.265+0200
                               INFO
2022-06-23T09:55:56.265+0200
                                INFO
                                        Detecting jar vulnerabilities...
spring-boot-demo:latest (debian 11.2)
Total: 23 (UNKNOWN: 1, LOW: 2, MEDIUM: 6, HIGH: 6, CRITICAL: 8)
Java (jar)
Total: 0 (UNKNOWN: 0, LOW: 0, MEDIUM: 0, HIGH: 0, CRITICAL: 0)
```

Wie bekommen wir die Anwendung lokal zum Laufen?





Spring Boot Maven Plugin

```
version: "3.9"
services:
   database;
   image: mongo:4.2.21
   restart: always
   ports:
        - 27017:27017
   environment:
        MONGO_INITOB_ROOT_USERNAME: root
        MONGO_INITOB_ROOT_PASSWORD: root123
   volumes:
```

- ./local-env/:/dockerentrypoint-initdb.d/

Spring Boot Docker Compose Support

```
<!-- Since Spring Boot 3.1 -->
<dependencies>
   <dependency>
       <groupId>org.springframework.boot
       <artifactId>spring-boot-docker-compose</artifactId>
       <optional>true
   </dependency>
</dependencies>
<huile>
   <plugins>
       <plugin>
          <groupId>org.springframework.boot
           <artifactId>spring-boot-maven-plugin</artifactId>
          <configuration>
              <tavers>
                  <enabled>true

*/layers>
          </configuration>
       </plugin>
   </plugins>
</build>
```

```
# application.properties
# default: compose.yml
spring.docker.compose.file=docker-compose.yml
```





Get started now!

Go on, paste and run the following in a terminal:

cart. w "https://get.ademn.to" | best

The Software Development Kit Manager

SDKMANT is a tool for managing parallel versions or until pie Software Development Kits on most Link based systems. If provides a convenient Command Line interface (CLI) and API for installing, switching, removing and listing Candidates Formerly snown as GVM the Groovy enVironment Manager, it was inspired by the very useful KVM and risems tools used at large by the Ruby community.



By Developers, for Developers

Making the make. Number moving chambest pages, extracting archives, messing with pieces and learn concomment variables.



Multi-platform

Runs on any UNIX based platforms: mai 25, Units, Dygwor, Solets, and Freesball.



Java all the way down

install software development kits for the JVM such as Java, Groovy, Soals, Kotlin and Ceyton, Art. Gradie, Grafis, Waven, SST, Spark, Soring Born, Vernis and many others also supported.



APIs

Now Clients can easily be written by consuming our open Broker REST API, Vendors can publish and announce cheir own releases through wisening Wenter API.



Lightweight

Written in basis and only requires out and riphurety to be present on your system. Over works with 25th last.



Open Source

Recked by a global community of developers. However timber <u>Apache 2.6</u>

- e edla
 - \$ sdk install java 17-open
 - \$ sdk install maven 3.6.3
 \$ sdk install maven 3.8.3
 - \$ sdk use java 17-open
- \$ sdk use maven 3.8.3
- \$ sdk env init
- \$ cat .sdkmanrc
 - # Enable auto-env through the sdkman_auto_env config # Add key=value pairs of SDKs to use below
 - java=17-open

maven=3.8.3



What is FeberConfig?

Ехатре Пів

Title impation

File Format Details

No Hugin Necessary

Download a Plugm

Contributing

Blog

Project Page on GitHub







EditorConfig

What is EditorConfig?

EditorConfig helps maintain consistent coding styles for multiple developers working on the same project across various editors and IDEs. The EditorConfig project consists of a file format for defining coding styles and a collection of text editor plugins that enable editors to read the file format and adhere to defined styles. EditorConfig files are easily readable and they work nicely with version control systems.

What's an EditorConfig file look like?

(A formal specification of EditorConfig is also available.)

Example file

Below is an example .editorconfig file setting end-of-line and indentation styles for Python and JavaScript files.

```
# EditorConfig is awesome:
nttps://EditorConfig.org

# top-west EditorConfig file
root = true

# Unix-style newlines with a newline ending
every file
[*]
end_of_line = lf
insert_final_newline = true
```

Fazit

Bei Greenfield Projekte

Automatisierung (was man automatisieren kann) von Beginn an

Bei Brownfield Projekte

Guckt was die größten Schmerzen bereiten und versucht diese weg zu automatisieren.

Fragen? mail@sandra-parsick.de

@SandraParsick
@sparsick@mastodon.social

https://github.com/sparsick/maintenance-talk

Referenzen

- https://github.com/spring-projects/spring-petclinic
- https://spring-petclinic.github.io/
- https://www.arc42.de/overview/
- https://adr.github.io/

Bildnachweise

- https://pxhere.com/de/photo/970825?utm_conte nt=shareClip&utm_medium=referral&utm_sourc e=pxhere
- https://pxhere.com/de/photo/867723?utm_conte nt=shareClip&utm_medium=referral&utm_sourc e=pxhere
- https://pxhere.com/de/photo/1409158?utm_cont ent=shareClip&utm_medium=referral&utm_sour ce=pxhere
- https://www.povole.com/do.do/foto/houeropovio