

# CN4J Report

Jan Westerkamp

Version 0.1.0-SNAPSHOT, 20230829T144049

# Table of Contents

1. Introduction .....	1
2. Jakarta EE .....	2
2.1. Jakarta Umbrella Specifications .....	2
2.1.1. Jakarta Platform .....	2
2.1.2. Jakarta Platform Release Management .....	3
2.1.3. Jakarta Platform TCK .....	5
2.2. Jakarta Component Specifications .....	6
2.2.1. Separated TCKs .....	6
2.2.2. Jakarta Activation .....	6
2.2.3. Jakarta Annotation(s) .....	8
2.2.4. Jakarta Authentication .....	9
2.2.5. Jakarta Authorization .....	10
2.2.6. Jakarta Batch .....	11
2.2.7. Jakarta (Bean) Validation .....	13
2.2.8. Jakarta CDI .....	14
2.2.9. Jakarta Concurrency .....	17
2.2.10. Jakarta Connectors (Ressource) .....	18
2.2.11. Jakarta (Dependency) Inject(ion) .....	19
2.2.12. Jakarta Enterprise (Java) Beans (EJB) .....	21
2.2.13. Jakarta Expression Language (EL) .....	22
2.2.14. Jakarta Faces .....	23
2.2.15. Jakarta Interceptor(s) .....	25
2.2.16. Jakarta JSON (Processing) .....	27
2.2.17. Jakarta JSON Bind(ing) .....	29
2.2.18. Jakarta Mail .....	30
2.2.19. Jakarta Messaging (JMS) .....	32
2.2.20. Jakarta Server Pages (JSP) .....	34
2.2.21. Jakarta Servlet .....	35
2.2.22. Jakarta Standard Tag Library (JSTL) .....	36
2.2.23. Jakarta Persistence (JPA) .....	37
2.2.24. Jakarta REST(ful Web Services) .....	38
2.2.25. Jakarta Security .....	40
2.2.26. Jakarta Transaction(s) .....	41
2.2.27. Jakarta Websocket .....	43
2.2.28. Jakarta XML Bind(ing) .....	46
2.2.29. Jakarta (XML) SOAP with Attachments (SAAJ) .....	47
2.2.30. Jakarta XML Web Services .....	48
2.2.31. Jakarta (XML) Web Service Meatatadata .....	49

2.3. Jakarta Stand-alone Component Specifications .....	51
2.3.1. Jakarta Data .....	51
2.3.2. Jakarta MVC .....	52
2.3.3. Jakarta NoSQL .....	53
2.4. Jakarta Parent .....	55
2.4.1. Eclipse EE4J (Parent) Project .....	55
3. MicroProfile .....	56
3.1. MicroProfile Umbrella Specifications .....	56
3.1.1. MicroProfile (Platform) .....	56
3.2. MicroProfile Component Specifications .....	56
3.2.1. MicroProfile Config .....	56
3.2.2. MicroProfile Fault Tolerance .....	57
3.2.3. MicroProfile Health .....	58
3.2.4. MicroProfile JWT .....	58
3.2.5. MicroProfile Metrics .....	59
3.2.6. MicroProfile REST Client .....	60
3.2.7. MicroProfile OpenAPI .....	60
3.2.8. MicroProfile Telemetry (Tracing) .....	61

# Chapter 1. Introduction

This document contains a dependency analysis showing the current state and target for Cloud Native for Java (CN4J) platforms like [Jakarta EE](#) and [MicroProfile](#). The analysis tool to generate the actual state analysis is [jQAssistant](#) (see [this repository](#) ), where the to-be analysis is derived from manually.



This document uses PlantUML diagrams, that are converted to SVG images - so text based search can be used in source and target files.

# Chapter 2. Jakarta EE

<https://jakarta.ee>

## 2.1. Jakarta Umbrella Specifications

### 2.1.1. Jakarta Platform

Project: <https://projects.eclipse.org/projects/ee4j.jakartaee-platform>

Source:

- <https://github.com/jakartaee/jakartaee-platform> (specification)
- <https://github.com/jakartaee/jakartaee-api> (API)
- <https://github.com/jakartaee/platform-tck> (TCK)

#### 10.0.0

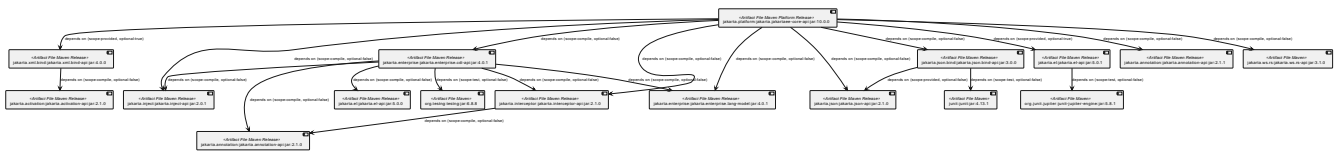


Figure 1. Jakarta Core Profile API 10.0.0 actual

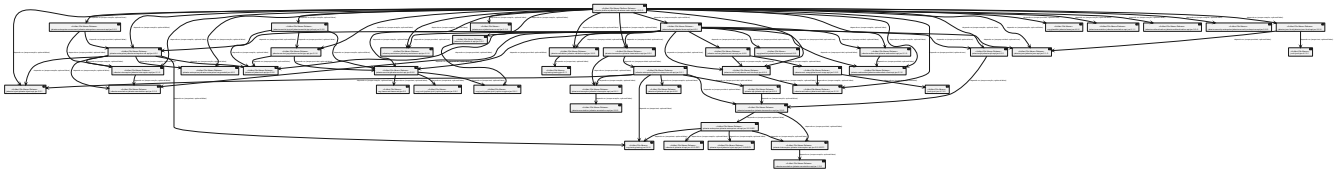


Figure 2. Jakarta Web Profile API 10.0.0 actual

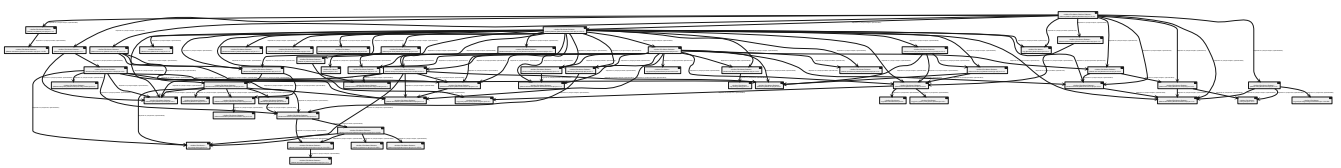


Figure 3. Jakarta Platform API 10.0.0 actual

#### 10.0.1

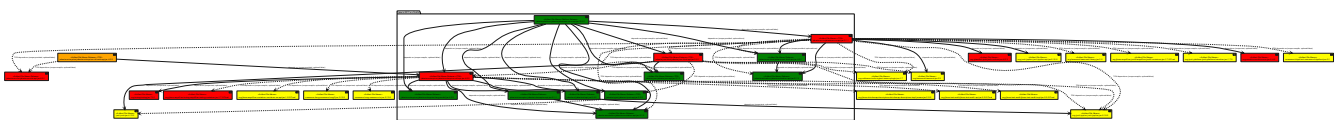


Figure 4. Jakarta Core Profile API 10.0.1 target including TCK dependencies

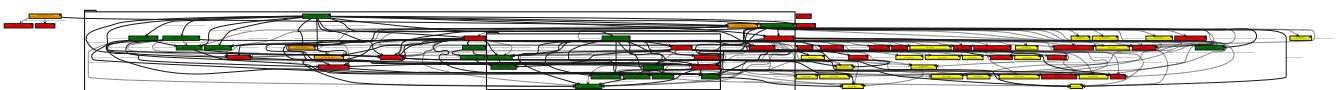


Figure 5. Jakarta Web Profile API 10.0.1 target including TCK dependencies



Figure 6. Jakarta Platform API 10.0.1 target with including TCK dependencies



The so called **waves** for the release order of the component specifications can be derived from this graph directly for the [Jakarta Platform Release Management](#).

Issues:

- Patch Release
  - <https://github.com/jakartaee/jakartaee-api/issues/138>
    - <https://github.com/jakartaee/jakartaee-api/pull/139>
  - [Remove jakarta.annotation.managedbean tests from Platform TCK](#)

11.0.0

TBD

## 2.1.2. Jakarta Platform Release Management

Wave 1:

- [Jakarta Annotation\(s\)](#)

Wave 2:

- [Jakarta \(Dependency\) Inject\(ion\)](#)
- Jakarta (CDI) Lang Model (will be released with [Jakarta CDI \[Core\]](#) in wave 3)
- [Jakarta Expression Language \(EL\)](#)
- [Jakarta Interceptor\(s\)](#)

Wave 3:

- [Jakarta Activation](#)
- [Jakarta CDI \[Core\]](#)
- [Jakarta JSON \(Processing\)](#)
- [Jakarta Transaction\(s\)](#)

Wave 4:

- [Jakarta Connectors \(Resource\)](#)
- [Jakarta Enterprise \(Java\) Beans \(EJB\)](#)
- [Jakarta JSON Bind\(ing\)](#)
- [Jakarta Mail](#)
- [Jakarta Servlet](#)

- [Jakarta Websocket Client](#) (will be released with [Jakarta Websocket \[Server\]](#) in wave 5)
- [Jakarta XML Bind\(ing\)](#)
- [Jakarta \(XML\) SOAP with Attachments \(SAAJ\)](#)

Wave 5:

- [Jakarta Authorization](#)
- [Jakarta Batch](#)
- [Jakarta Persistence \(JPA\)](#)
- [Jakarta REST\(ful Web Services\)](#)
- [Jakarta Server Pages \(JSP\)](#)
- [Jakarta \(Bean\) Validation](#)
- [Jakarta Websocket](#)
- [Jakarta XML Web Services](#)

Wave 6:

- [Jakarta Authentication](#)
- [Jakarta Concurrency](#)
- [Jakarta Data](#) (since [Jakarta Platform Web Profile 11.0.0](#))
- [Jakarta Messaging \(JMS\)](#) ([Jakarta JMS in Maven](#))
- [Jakarta Faces](#)
- [Jakarta Standard Tag Library \(JSTL\)](#)
- [Jakarta Platform Core Profile](#) (will be released with [Jakarta Platform](#) in last wave)

Wave 7:

- [Jakarta CDI Web](#) (new)
- [Jakarta Security](#)

Wave 8:

- [Jakarta Platform Web Profile](#) (will be released with [Jakarta Platform](#) in last wave)
- [Jakarta CDI Platform](#) (new)

Wave 9:

- [Jakarta Platform](#)



Wave 8 could become obsolete when [Jakarta CDI Web](#) integration is not implemented at all and the [Jakarta Platform](#) umbrella specs being released together. Wave 9 will become wave 8 in this case.



Jakarta Data will be added to the [Jakarta Platform](#) Web Profile in 11.0.0.

Issue:

- (<https://github.com/jakartaee/jakartaee-platform/issues/685>)

### 2.1.3. Jakarta Platform TCK

The (old) combined TCK to test compatibility. The refactoring (splitting it up to the several component specs) is pending for improving maintainability.

Source: <https://github.com/jakartaee/platform-tck>

Still contains the TCK for the following specifications:

- [Jakarta Annotation\(s\)](#) (TBD, TCK creation planed for [Jakarta Annotation\(s\)](#) 3.0.0)
- [Jakarta Authentication](#) (TBD, remove here?)
- [Jakarta Authorization](#)
- [Jakarta Connectors \(Resource\)](#) (Jakarta Resource in Maven)
- [Jakarta Enterprise \(Java\) Beans \(EJB\)](#)
- [Jakarta Expression Language \(EL\)](#)
- [Jakarta JSON \(Processing\)](#) (TBD, remove here?)
- [Jakarta JSON Bind\(ing\)](#) (TBD, remove here?)
- [Jakarta Mail](#) (TBD, remove here?)
- [Jakarta Messaging \(JMS\)](#)
- [Jakarta REST\(ful Web Services\)](#) (TBD, remove here?)
- [Jakarta Transaction\(s\)](#)
- [Jakarta Security](#) (TBD, remove here?)
- [Jakarta Server Pages \(JSP\)](#)
- [Jakarta Servlet](#)
- [Jakarta Persistence \(JPA\)](#)
- [Jakarta Standard Tag Library \(JSTL\)](#)
- [Jakarta Websocket](#)
- [Jakarta \(XML\) SOAP with Attachments \(SAAJ\)](#)
- [Jakarta XML Web Services](#)
- [Jakarta \(XML\) Web Service Metadata](#) (TBD, stand-alone?, JSR-181)

Additionally it contains tests for older versions of [Jakarta Component Specifications](#).



## 2.2. Jakarta Component Specifications

### 2.2.1. Separated TCKs

Jakarta component specs with separated TCK already:

- [Jakarta Activation](#) (script based)
- [Jakarta Annotation\(s\)](#) (TBD, TCK creation planed for Jakarta Annotations 3.0.0)
- [Jakarta Authentication](#)
- [Jakarta Batch](#)
- [Jakarta \(Bean\) Validation](#) (renaming planed soon)
- [Jakarta CDI](#) (split into CDI Core and CDI web is planed later, a CDI Platform might be required too)
- [Jakarta Concurrency](#)
- [Jakarta Data](#) (stand-alone)
- [Jakarta \(Dependency\) Inject\(ion\)](#)
- [Jakarta Faces](#)
- [Jakarta JSON \(Processing\)](#)
- [Jakarta JSON Bind\(ing\)](#)
- [Jakarta MVC](#) (stand-alone)
- [Jakarta Mail](#) (script based)
- [Jakarta REST\(ful Web Services\)](#)
- [Jakarta Security](#)
- [Jakarta XML Bind\(ing\)](#) (script based)



The remaining specifications still have their TCK included in the (old) [Jakarta Platform TCK](#).



- [Jakarta Interceptor\(s\)](#) (TBD, no separate TCK found)
- [Jakarta NoSQL](#) (TBD, no separate TCK found)

### 2.2.2. Jakarta Activation

Project: <https://projects.eclipse.org/projects/ee4j.jaf>

Source:

- <https://github.com/jakartaee/jaf-api> (specification and API)
- <https://github.com/jakartaee/jaf-tck> (TCK)

## 2.1.0



Figure 7. Jakarta Activation API 2.1.0 actual

Issues:

- CVEs [https://bugs.eclipse.org/bugs/show\\_bug.cgi?id=581580](https://bugs.eclipse.org/bugs/show_bug.cgi?id=581580)
- script based TCK

## 2.1.2



Figure 8. Jakarta Activation API 2.1.2 actual

Java SE version:

- 8 (source, with and an exception for module-info.java)
- 8 (target)
- 11+ (build)

Issues:

- CVEs [https://bugs.eclipse.org/bugs/show\\_bug.cgi?id=581580](https://bugs.eclipse.org/bugs/show_bug.cgi?id=581580)
- script based TCK
- based on Java SE 8 and 11+
- check for dependency and plugin dependency updates (especially API)

## 2.1.3

Issues:

- Patch Release
  - Patch CVEs
- based on Java SE 8 and 11+

### 3.0.0

Issues:

- Major Release
- Update Java SE requirement to 11+ at minimum

### 2.2.3. Jakarta Annotation(s)

Project: <https://projects.eclipse.org/projects/ee4j.ca>

Source:

- <https://github.com/jakartaee/common-annotations-api> (specification and API)
- <https://github.com/jakartaee/platform-tck> (TCK)

#### 2.1.1



Figure 9. Jakarta Annotation API 2.1.1 actual

Java SE version:

- API
  - 8 (source)
  - 9 (source module-info.java)
  - 8 (target)
  - 11+ (build)
- specification
  - 8+ (build)

Issues:

- CVEs [https://bugs.eclipse.org/bugs/show\\_bug.cgi?id=581580](https://bugs.eclipse.org/bugs/show_bug.cgi?id=581580)
- depends on [Jakarta Platform TCK](#)
- Inconsistent naming
- check for dependency (especially Maven) and plugin dependency updates (especially API)
- Parent POM is missing

## 2.1.2

Issues:

- Patch Release [Issue #177](#)
  - Patch CVEs

## 3.0.0

Issues:

- Major Release (Plan Review) <https://github.com/jakartaee/specifications/pull/643/commits/387473ff5822c297f4962f9a5923195679428528>
  - @ManagedBean removal
    - <https://github.com/jakartaee/platform-tck/issues/1184>
    - Affected specs
      - [Jakarta Annotation\(s\)](#) (itself, spec)
      - [Jakarta CDI](#) (spec, TCK Impl, TCK Web)
      - [Jakarta Faces](#) (spec changelog)
      - Jakarta Managed Beans (spec, itself)
      - [Jakarta Platform TCK](#) (i.e. appclient, ejb30, jaxrs, jms)
      - [Jakarta REST\(ful Web Services\)](#) (spec, in environment/\_javaee.adoc)
  - Java SE 11
- Additional changes
  - Extract TCK from [Jakarta Platform TCK](#) (by moving [existing signature test](#))
  - Multi-module Maven setup
  - Consistent naming

## 2.2.4. Jakarta Authentication

Project: <https://projects.eclipse.org/projects/ee4j.authentication>

Source: <https://github.com/jakartaee/authentication> (specification, API and TCK)

## 3.0.0



Figure 10. Jakarta Authentication API 3.0.0 actual

Java SE version:

- 11 (source, target, bundle, javadoc)
- 11+ (build)

Issues:

- CVEs
  - [https://bugs.eclipse.org/bugs/show\\_bug.cgi?id=581580](https://bugs.eclipse.org/bugs/show_bug.cgi?id=581580)
  - other
- Parent, Spec and API do not **define maven.compiler.release**
- Parent enforces out-dated Maven version 3.6.0
- API contains relative path on parent project
- check for dependency and plugin dependency updates
- TCK uses out-dated dependencies (i.e. arquillian-\*, CDI, EL, Validation, EJB, Annotation)
- TCK dependency need to be adopted (xmlunit 1.6 → xmlunit-legacy 2.9.1)
- TCK depends on Platform spec [Jakarta Authorization](#)
- TCK is not configured as module on root
- TCK uses strange Maven coordinates (!)
- FIXME: Run jQA on TCK
  - check possible wave impact → none (manually checked)
  - update TCK dependencies in umbrella specs → done

### 3.0.1

Issues:

- Patch Release
  - Patch CVEs

### 3.1.0

Issues:

- Plan Review

## 2.2.5. Jakarta Authorization

Project: <https://projects.eclipse.org/projects/ee4j.authorization>

Source:

- <https://github.com/jakartaee/authorization> (specification and API)

- <https://github.com/jakartaee/platform-tck> (TCK)

## 2.1.0

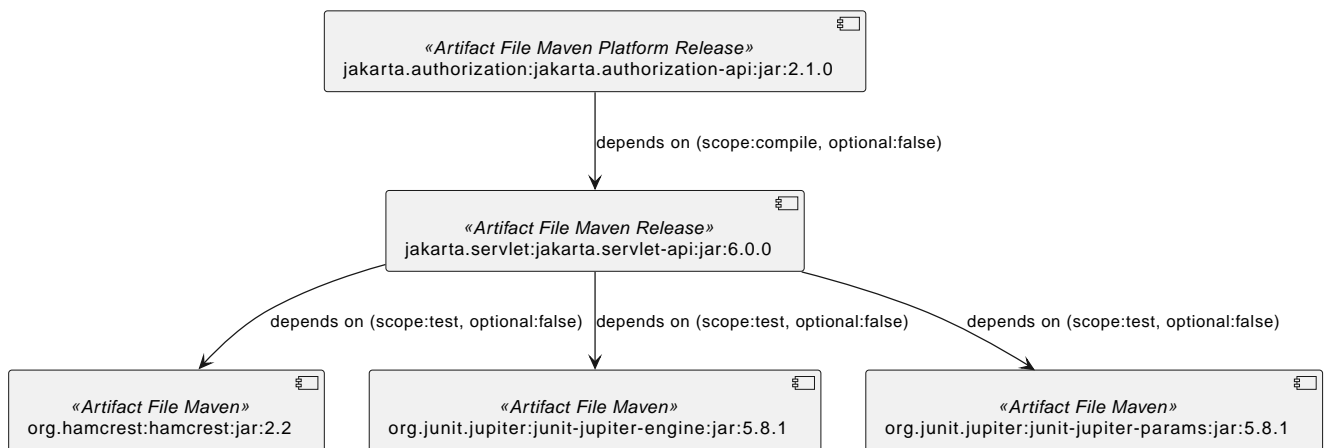


Figure 11. Jakarta Authorization API 2.1.0 actual

Java SE version:

- 11 (source, target, javadoc)
- 11+ (build)

Issues:

- CVEs [https://bugs.eclipse.org/bugs/show\\_bug.cgi?id=581580](https://bugs.eclipse.org/bugs/show_bug.cgi?id=581580)
- should be moved to [Jakarta Platform](#) Web Profile
- depends on [Jakarta Platform TCK](#)
- check for dependency and plugin dependency updates

## 2.1.1

Issues:

- Patch Release
  - Patch CVEs

## 3.0.0

Issues:

- Plan Review
- should be moved to [Jakarta Platform](#) Web Profile

## 2.2.6. Jakarta Batch

Project: <https://projects.eclipse.org/projects/ee4j.batch>

Source:

- <https://github.com/eclipse-ee4j/batch-api> (specification and API)
- <https://github.com/eclipse-ee4j/batch-tck> (TCK)

### 2.1.1

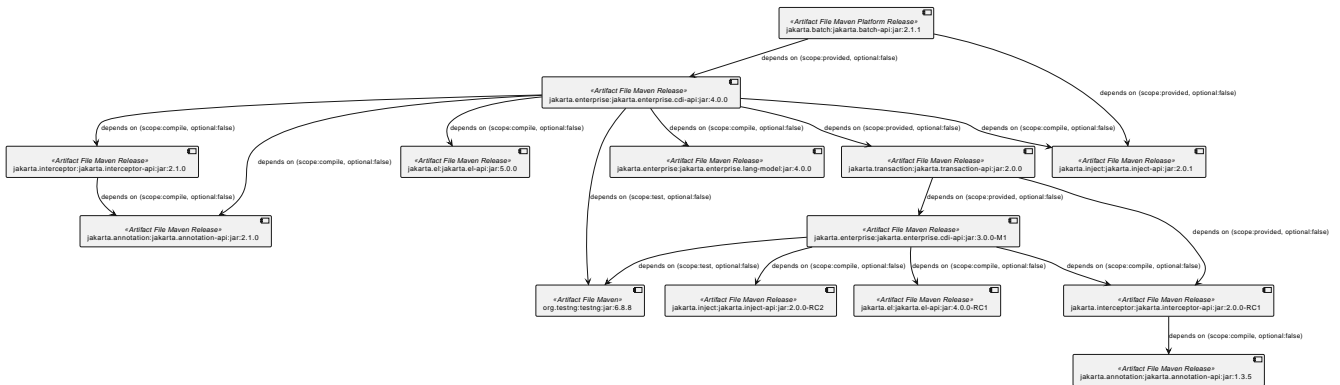


Figure 12. Jakarta Batch API 2.1.1 actual

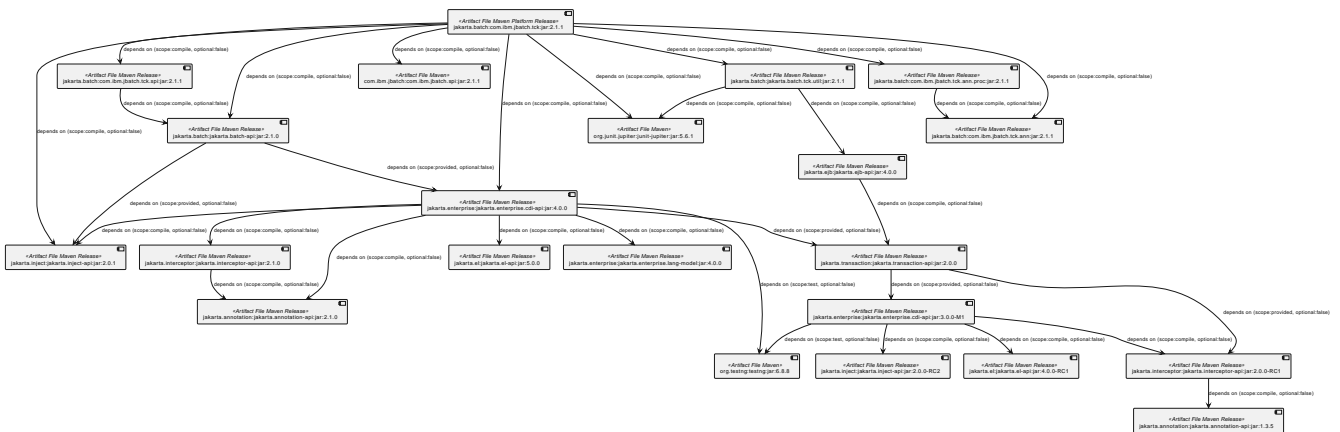


Figure 13. Jakarta IBM JBatch TCK 2.1.1 actual

Java SE version:

- API and specification
  - 11 (source, target)
  - 11 ≤ x < 12 (build)
  - 8 (javadoc)
- TCK
  - 11 ≤ x < 18 (build)

Issues:

- CVEs [https://bugs.eclipse.org/bugs/show\\_bug.cgi?id=581580](https://bugs.eclipse.org/bugs/show_bug.cgi?id=581580)
- TCK has out-dated dependencies
- Parent version definitions deviate from Maven conventions
- Add more jQA targets

## 2.1.2

Issues:

- Patch Release
  - Patch CVEs
- fix TCK dependencies

## 2.2.7. Jakarta (Bean) Validation

Project: <https://projects.eclipse.org/projects/ee4j.bean-validation>

Source:

- <https://github.com/jakartaee/validation-spec> (specification)
- <https://github.com/jakartaee/validation> (API)
- <https://github.com/jakartaee/validation-tck> (TCK)

## 3.0.2/3.0.1

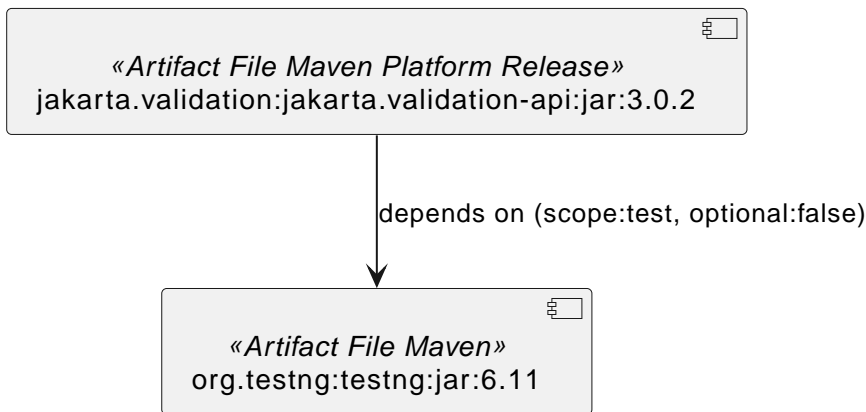


Figure 14. Jakarta Validation API 3.0.2 actual

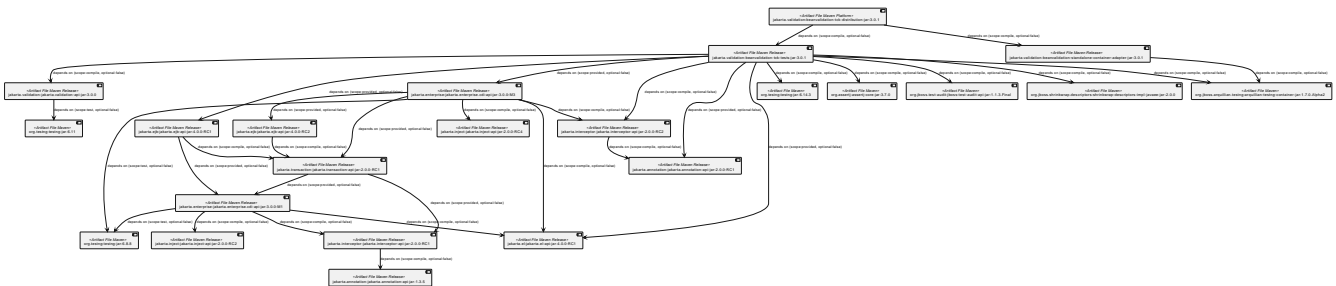


Figure 15. Jakarta Validation TCK Distribution 3.0.1 actual

Java SE version:

- specification
  - undefined
- API
  - 8 (source)



- 9 (source module-info.java)
- 8 (target, bundle)
- 9+ (build)
- TCK
  - 8 (source, target)
  - 8  $\Leftarrow$  x < 9 (build)

Issues:

- specification is still script based!
- TCK is out-dated
- CVEs
  - [https://bugs.eclipse.org/bugs/show\\_bug.cgi?id=581580](https://bugs.eclipse.org/bugs/show_bug.cgi?id=581580)
  - [https://bugs.eclipse.org/bugs/show\\_bug.cgi?id=581588](https://bugs.eclipse.org/bugs/show_bug.cgi?id=581588)
- check for dependency and plugin dependency updates

### 3.0.3

Issues:

- Patch Release
  - Patch CVEs

### 3.1.0

Issues:

- Plan Review
  - <https://github.com/jakartaee/validation/issues/174>
  - <https://github.com/jakartaee/validation-spec/issues/267>
  - BREAKING CHANGE in a Minor Release! Java SE (1.)8 → 17

## 2.2.8. Jakarta CDI

Project: <https://projects.eclipse.org/projects/ee4j.cdi>

Source:

- <https://github.com/jakartaee/cdi> (specification and API)
- <https://github.com/jakartaee/cdi-tck> (TCK)

### 4.0.1/4.0.9

**jakarta.enterprise.cdi-spec-doc**



Figure 16. Jakarta CDI Spec Doc 4.0.1 actual

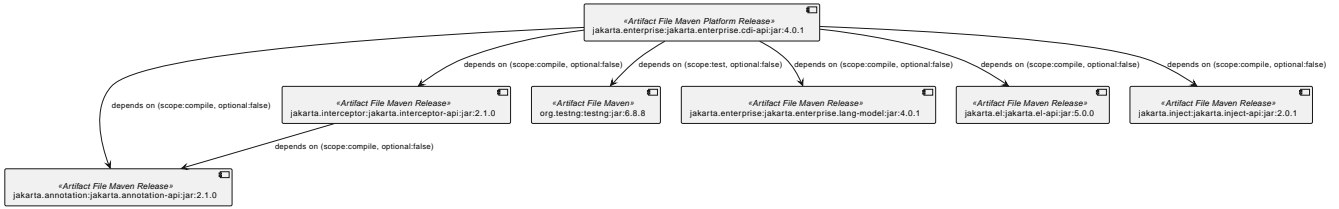


Figure 17. Jakarta CDI API 4.0.1 actual

**jakarta.enterprise.lang-model**

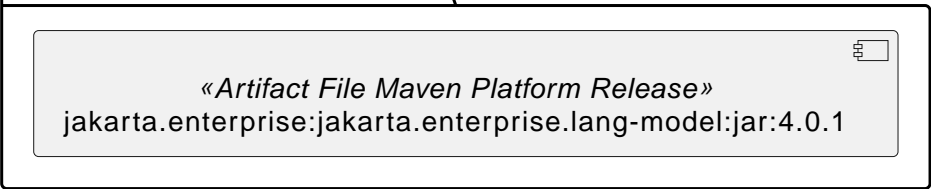


Figure 18. Jakarta Lang Model 4.0.1 actual

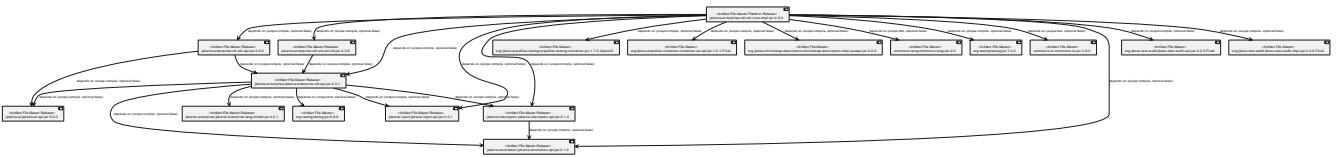


Figure 19. Jakarta CDI TCK Core Impl 4.0.9 actual

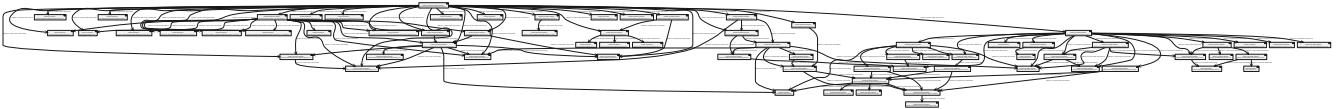


Figure 20. Jakarta CDI TCK Web Impl 4.0.9 actual

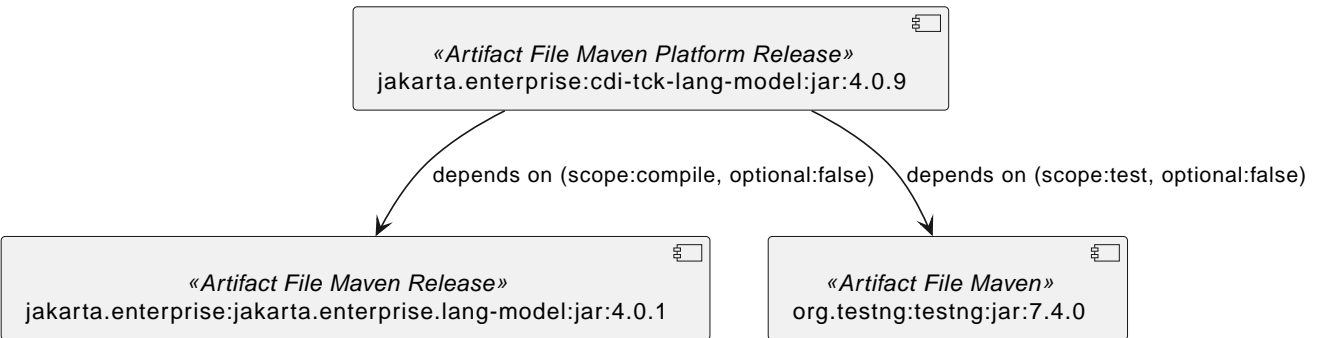


Figure 21. Jakarta CDI TCK Lang Model Impl 4.0.9 actual

Figure 22. Jakarta CDI TCK Distribution 4.0.9 actual

Java SE version:

- API and specification
  - 11 (release)
  - 11+ (build)
- TCK parent
  - 11 (release)
  - 11+ (build)
- TCK Core Impl
  - 11 (release)
  - 11+ (build)
- TCK Web Impl
  - 1.8 (source, target)

Issues:

- Circular dependencies via TCK
  - <https://github.com/jakartaee/cdi/issues/687>
- Naming issue with (CDI) Lang Model
- CVEs
  - [https://bugs.eclipse.org/bugs/show\\_bug.cgi?id=581580](https://bugs.eclipse.org/bugs/show_bug.cgi?id=581580)
  - [https://bugs.eclipse.org/bugs/show\\_bug.cgi?id=581588](https://bugs.eclipse.org/bugs/show_bug.cgi?id=581588)
- Spec references TCK version 2.0.3.Final
- TCK uses out-dated dependencies
- TCK profile verify-release requires Java SE 1.8
- TCK Web Impl mentions out-dated waves
- check for dependency and plugin dependency updates

#### **4.0.1/4.0.10**

TBD

#### **4.0.2/4.0.11**

Issues:

- Patch Release
  - Patch CVEs

#### **4.1.0**

Issues:

- Plan Review

## 2.2.9. Jakarta Concurrency

Project: <https://projects.eclipse.org/projects/ee4j.cu>

Source: <https://github.com/jakartaee/concurrency> (specification, API and TCK)

### 3.0.2

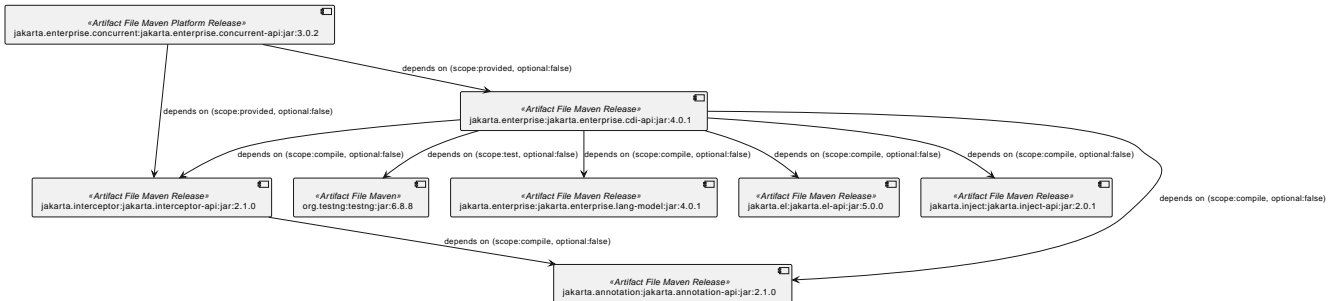


Figure 23. Jakarta Concurrent API 3.0.2 actual

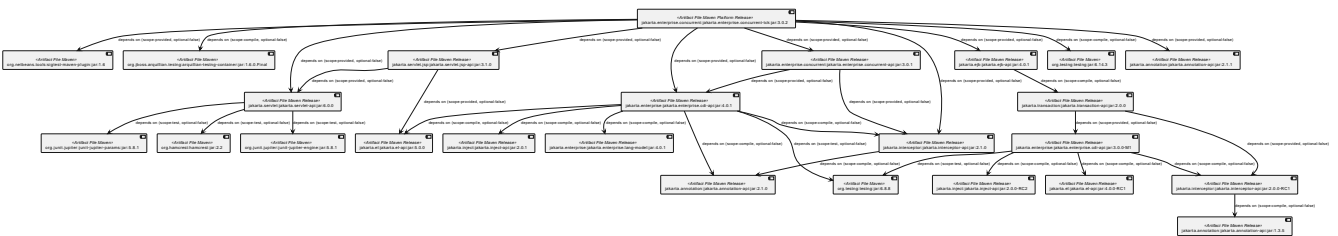


Figure 24. Jakarta Concurrent TCK 3.0.2 actual

Java SE version:

- 11 (release, source, target)
- 11+ (build)

Issues:

- Spec is not configured as module on root
- Maven coordinates deviating (concurrency vs. concurrent)
- CVEs [https://bugs.eclipse.org/bugs/show\\_bug.cgi?id=581580](https://bugs.eclipse.org/bugs/show_bug.cgi?id=581580)
- check for dependency and plugin dependency updates

### 3.0.3

Issues:

- Patch Release
  - Patch CVEs - done by regular maintenance already!
- Java SE 11 for release (requires cherry picking)

### 3.1.0

Issues:

- Plan Review

## 2.2.10. Jakarta Connectors (Resource)

Project: <https://projects.eclipse.org/projects/ee4j.jca>

Source:

- <https://github.com/jakartaee/connectors> (specification and API)
- <https://github.com/jakartaee/platform-tck> (TCK)

### 2.1.0

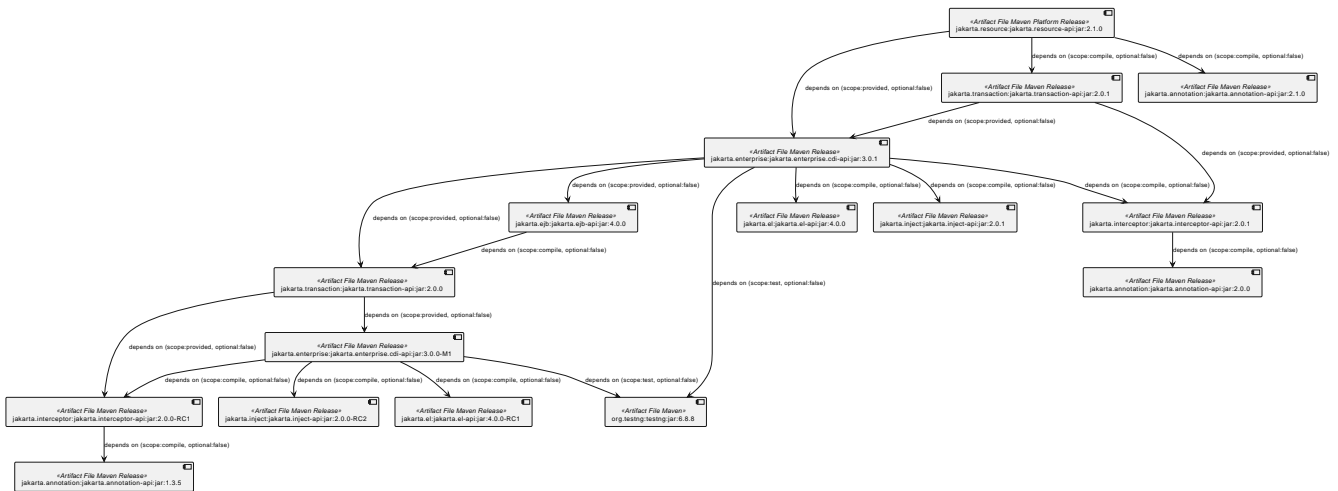


Figure 25. Jakarta Resource API 2.1.0 actual

Java SE version:

- Specification
  - 11  $\Leftarrow$  x < 12 (build)
- API
  - 11 (release, javadoc)
  - 11+ (build)

Issues:

- Non-consistent naming
- CVEs [https://bugs.eclipse.org/bugs/show\\_bug.cgi?id=581580](https://bugs.eclipse.org/bugs/show_bug.cgi?id=581580)
- Specification README.md need updates
- Parent and API repo link need updates
- API references out-dated dependencies with circular dependencies!
  - [Jakarta CDI](#)
  - [Jakarta Transaction\(s\)](#)
- depends on [Jakarta Platform TCK](#)

- check for dependency and plugin dependency updates

### 2.1.1

Issues:

- Patch Release
  - Patch CVEs

### 3.0.0

Issues:

- Major Release (TBD, for fixing Jakarta EE 10!)
  - Fix circular dependencies



To comply with SemVer conventions, this Major Release is required because of breaking changes in respect to the component specification, but not to the umbrella specification, as it requires a newer fixed version(s) already! Affected dependencies in respect to this:

- [Jakarta Transaction\(s\)](#)
- [Jakarta CDI](#)

## 2.2.11. Jakarta (Dependency) Inject(ion)

Project: <https://projects.eclipse.org/projects/ee4j.cdi> (Jakarta CDI)

Source:

- <https://github.com/jakartaee/inject-spec> (specification)
- <https://github.com/jakartaee/inject> (API)
- <https://github.com/jakartaee/inject-tck> (TCK)

### 2.0.1

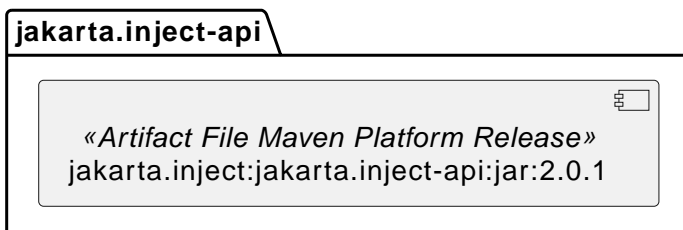


Figure 26. Jakarta Inject API 2.0.1 actual

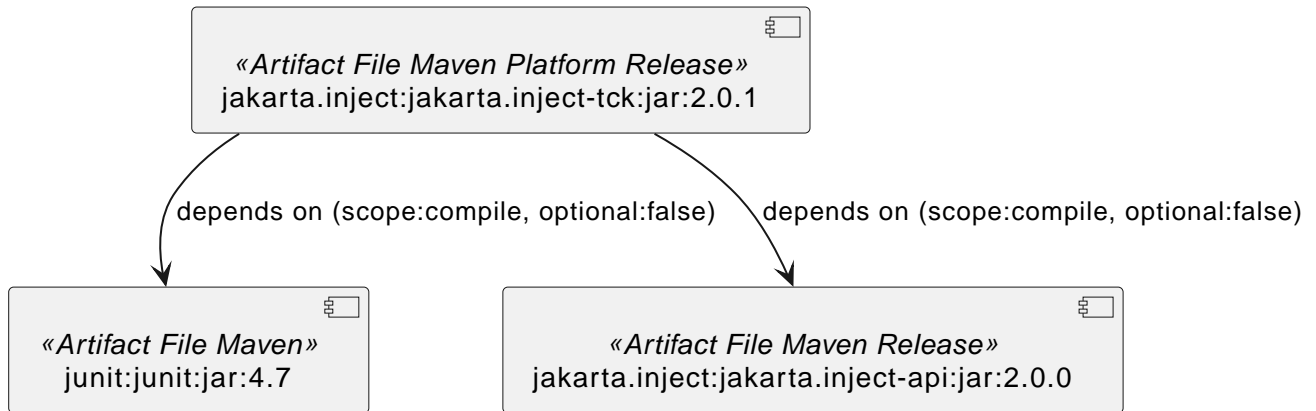


Figure 27. Jakarta Inject TCK 2.0.1 actual

Java SE version:

- specification
  - $8 \leq x < 9$  (build)
- API
  - 8 (release)
  - 9 (release module-info.java)
  - 8 (target)
  - ? (bundle)
  - 9+ (build)
- TCK
  - 8 (source, target)
  - 8+ (build)

Issues:

- Specification enforcer message is wrong ("or lower" need to be deleted)
- API dependency out-dated (JUnit)
- TCK dependency out-dated (JUnit)
- CVEs
  - [https://bugs.eclipse.org/bugs/show\\_bug.cgi?id=581580](https://bugs.eclipse.org/bugs/show_bug.cgi?id=581580)
  - other
- check for dependency and plugin dependency updates
- [check multi-release JAR release](#)

## 2.0.2

Issues:

- Patch Release

- Patch CVEs

## 2.2.12. Jakarta Enterprise (Java) Beans (EJB)

Project: <https://projects.eclipse.org/projects/ee4j.ejb>

Source:

- <https://github.com/jakartaee/enterprise-beans> (specification and API)
- <https://github.com/jakartaee/platform-tck> (TCK)

### 4.0.1

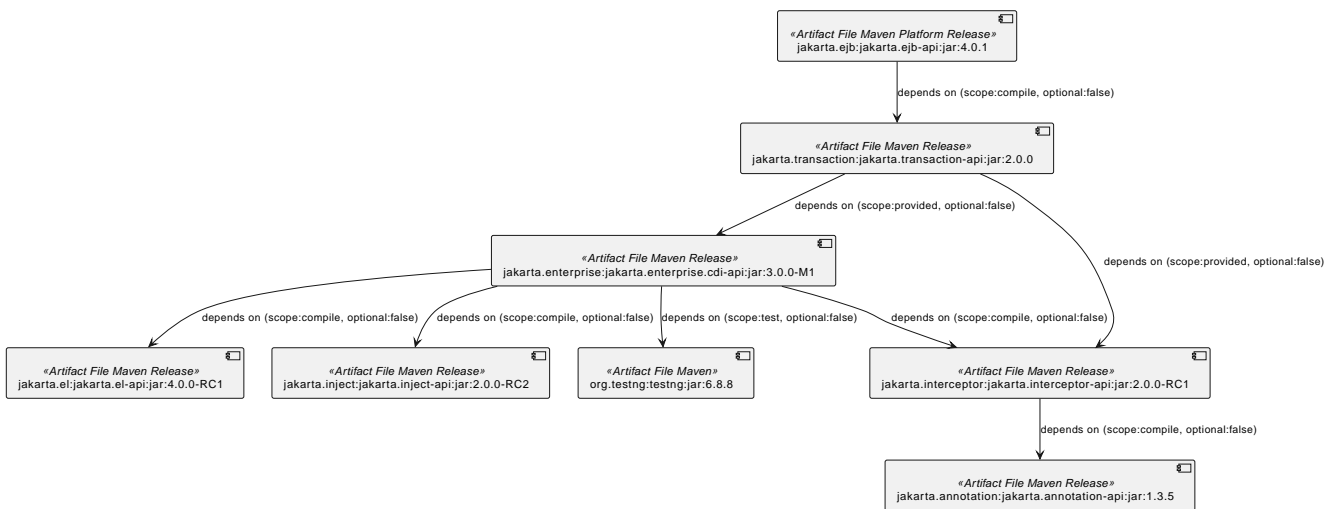


Figure 28. Jakarta EJB API 4.0.1 actual

Java SE version:

- Specification
  - 1.8+ (build)
- API
  - 1.8 (release, javadoc)
  - ? (bundle)
  - 9+ (build)

Issues:

- Non-consistent naming
- CVEs [https://bugs.eclipse.org/bugs/show\\_bug.cgi?id=581580](https://bugs.eclipse.org/bugs/show_bug.cgi?id=581580)
- API references out-dated dependencies with circular dependencies!
  - [Jakarta Transaction\(s\)](#)
- depends on [Jakarta Platform TCK](#)
- check for dependency and plugin dependency updates



## 4.0.2

Issues:

- Patch Release
  - Patch CVEs

## 5.0.0

Issues:

- Major Release (TBD, for fixing Jakarta EE 10!)
  - Fix circular dependencies



To comply with SemVer conventions, this Major Release is required because of breaking changes in respect to the component specification, but not to the umbrella specification, as it requires a newer fixed version(s) already! Affected dependencies in respect to this:

- [Jakarta Transaction\(s\)](#)

## 2.2.13. Jakarta Expression Language (EL)

Project: <https://projects.eclipse.org/projects/ee4j.el>

Source:

- <https://github.com/jakartaee/expression-language> (specification and API)
- <https://github.com/jakartaee/platform-tck> (TCK)

## 5.0.1

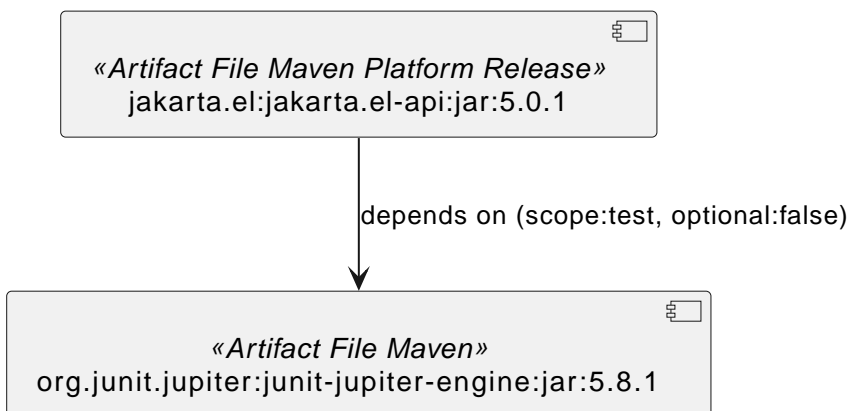


Figure 29. Jakarta EL API 5.0.1 actual

Java SE version:

- Parent
  - undefined

- Specification
  - 11
- API
  - 11 (release, javadoc)
  - ? (bundle)
  - 11+ (build)

Issues:

- depends on [Jakarta Platform TCK](#)
- Inconsistent naming
- CVEs [https://bugs.eclipse.org/bugs/show\\_bug.cgi?id=581580](https://bugs.eclipse.org/bugs/show_bug.cgi?id=581580)
- check for dependency and plugin dependency updates

### 5.0.2

Issues:

- Patch Release
  - Patch CVEs

### 6.0.0

Issues:

Plan Release

## 2.2.14. Jakarta Faces

Project: <https://projects.eclipse.org/projects/ee4j.faces>

Source: <https://github.com/jakartaee/expression-language> (specification, API and TCK)

### 4.0.1

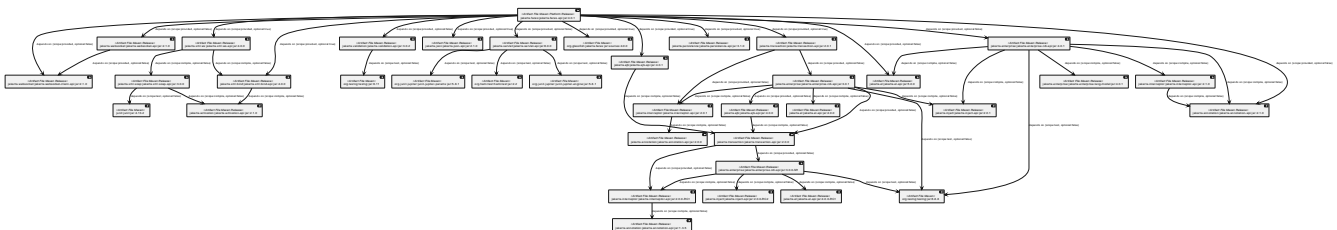


Figure 30. Jakarta Faces API 4.0.1 actual

Java SE version:

- Specification
  - undefined

- API
  - 11 (source, target, javadoc, bundle)
  - 11+ (build)
- TCK
  - 11 (release)
  - 11+ (build)
- TCK Dist
  - undefined
- TCK Dist User Guide
  - 11+ (build)

#### Issues:

- Naming is using plural form (TBD, won't change)
- Parent POM is missing
- API references implementation source (org.glassfish:jakarta.faces:jar) as provided optional dependency - circular dependency!
- API references out-dated dependencies with circular dependencies!
- TCK references out-dated dependencies with circular dependencies!
- TCK references out-dated test dependencies
- TCK uses out-dated dependencies (i.e. arquillian-\*, XML Bind, Annotation)
- TCK dependency need to be adopted (xmlunit 1.6 → xmlunit-legacy 2.9.1)
- TCK dependency need to be adopted (rhino:js:jar:1.7R2 → org.mozilla:rhino:jar:1.7.14)
- TCK is test dependency javax.annotation-api required or should it be replaced by current jakarta.annotation-api? (TBD, replacement assumed)
- TCK uses strange Maven coordinates (!)
- TCK is not available on Maven Central
- CVEs
  - [https://bugs.eclipse.org/bugs/show\\_bug.cgi?id=581580](https://bugs.eclipse.org/bugs/show_bug.cgi?id=581580)
  - others
- check for dependency and plugin dependency updates

#### 4.0.2

#### Issues:

- Patch Release
  - Patch CVEs

- Potential cherry-picking required
- Fix circular dependency on [Jakarta Transaction\(s\)](#) (Major Release9)



Including a Major Release of a dependent spec [Jakarta Transaction\(s\)](#) is allowed according to SemVer rules, if the (all) breaking changes in it already covered (here through [Jakarta CDI](#) dependency) in this specification!

#### 4.1.0

TBD

Issues:

- Plan Release <https://projects.eclipse.org/projects/ee4j.faces/releases/4.1/plan>
- Milestone <https://github.com/jakartaee/faces/milestone/20>
- Release Review <https://projects.eclipse.org/projects/ee4j.faces/reviews/4.1-release-review>
- CVEs [https://bugs.eclipse.org/bugs/show\\_bug.cgi?id=581580](https://bugs.eclipse.org/bugs/show_bug.cgi?id=581580)
  - patched in specification
  - NOT patched in TCK distribution user guide yet

#### 5.0.0

Issues:

Plan Release

### 2.2.15. Jakarta Interceptor(s)

Project: <https://projects.eclipse.org/projects/ee4j.interceptors>

Source:

- <https://github.com/jakartaee/interceptors> (specification and API)
- ? (TCK)

#### 2.1.0

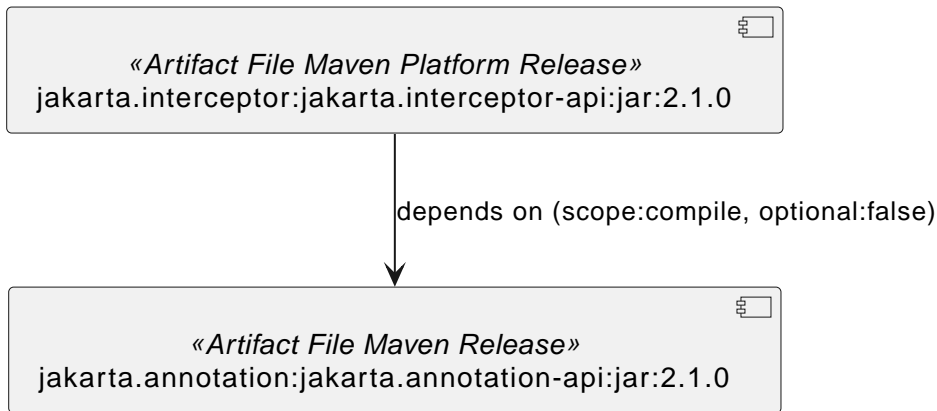


Figure 31. Jakarta Interceptor API 2.1.0 actual

Java SE version:

- Parent
  - undefined (will be changed with 2.2.0 to 11 release)
- specification
  - undefined (will be changed with 2.2.0 to 11 release and bundle)
- API (will be changed with 2.2.0 to 11 release and bundle)
  - 8 (release)
  - 9 (release module-info.java)
  - 8 (target)
  - ? (bundle)
  - 9+ (build)

Issues:

- TCK is missing
- Inconsistent naming
- API depends on out-dated and compile dependency for [Jakarta Annotation\(s\)](#)
- CVEs [https://bugs.eclipse.org/bugs/show\\_bug.cgi?id=581580](https://bugs.eclipse.org/bugs/show_bug.cgi?id=581580)
- check for dependency and plugin dependency updates

### 2.1.1

Issues:

- Patch Release
  - Patch CVEs
- Potential cherry-picking required

## 2.2.0-RC1

TBD

Issues:

- Minor Release - but should be a Major Release!
  - Patch CVEs
    - [https://bugs.eclipse.org/bugs/show\\_bug.cgi?id=581580](https://bugs.eclipse.org/bugs/show_bug.cgi?id=581580) patched
- Plugin updates
- Defining Java SE 11 release
- Tag <https://github.com/jakartaee/interceptors/releases/tag/2.2.0-RC1-RELEASE>

## 2.2.0

Issues:

Plan Release

### 2.2.16. Jakarta JSON (Processing)

Project: <https://projects.eclipse.org/projects/ee4j.jsonp>

Source: <https://github.com/jakartaee/jsonp-api> (specification, API and TCK)

#### 2.1.1



Figure 32. Jakarta JSON API 2.1.1 actual

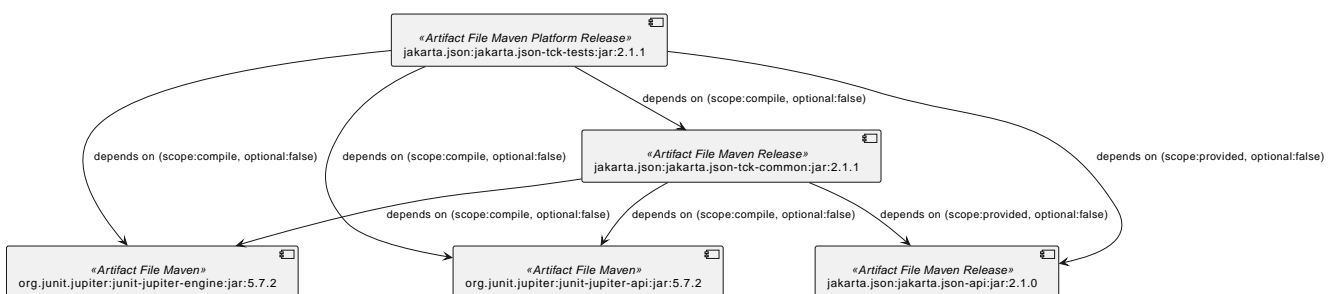


Figure 33. Jakarta JSON TCK Tests 2.1.1 actual

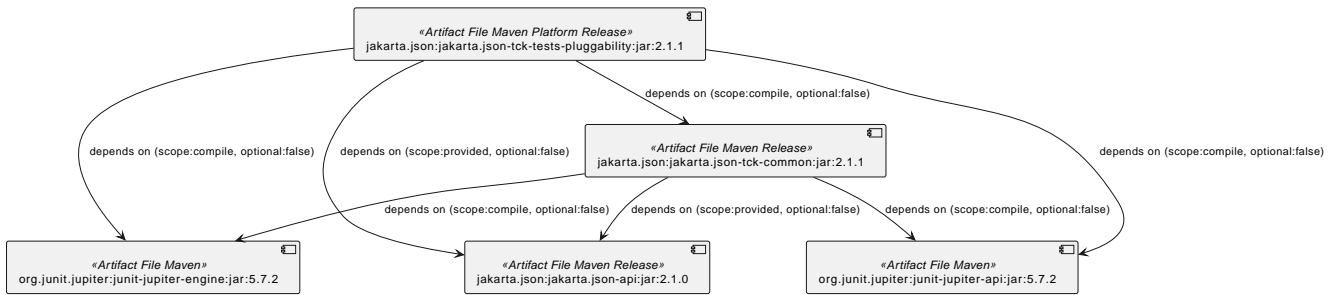


Figure 34. Jakarta JSON TCK Tests Pluggability 2.1.1 actual

Java SE version:

- specification
  - 8+ (build)
- API
  - 8 (release)
  - 9 (release module-info.java)
  - 11+ (build)
- TCK
  - 11 (source, target)
  - 11+ (build)

Issues:

- Non-consistent naming
- No parent defined
- CVEs [https://bugs.eclipse.org/bugs/show\\_bug.cgi?id=581580](https://bugs.eclipse.org/bugs/show_bug.cgi?id=581580)
- Repo naming issue (jsonp-api contains specification and TCK too)

### 2.1.2

TBD

Issues:

- Patch Release <https://github.com/jakartaee/jsonp-api/releases/tag/2.1.2-RELEASE>
  - Plugin and Java SE Version build updates, spec omitted
  - Other bug fixes

### 2.1.3

Issues:

- Patch Release
  - Patch CVEs

## 2.2.17. Jakarta JSON Bind(ing)

Project: <https://projects.eclipse.org/projects/ee4j.jsonb>

Source: <https://github.com/jakartaee/jsonb-api> (specification, API and TCK)

### 3.0.0

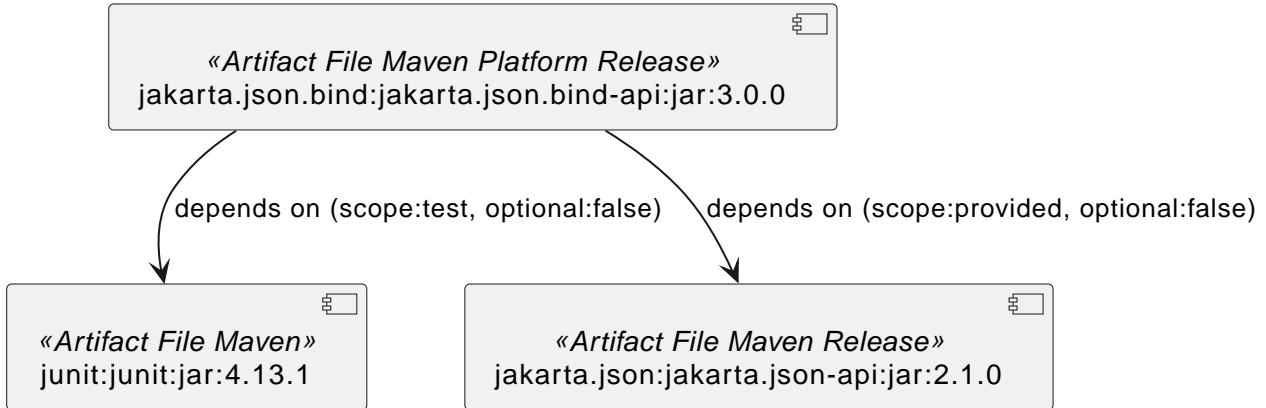


Figure 35. Jakarta JSON Bind API 3.0.0 actual

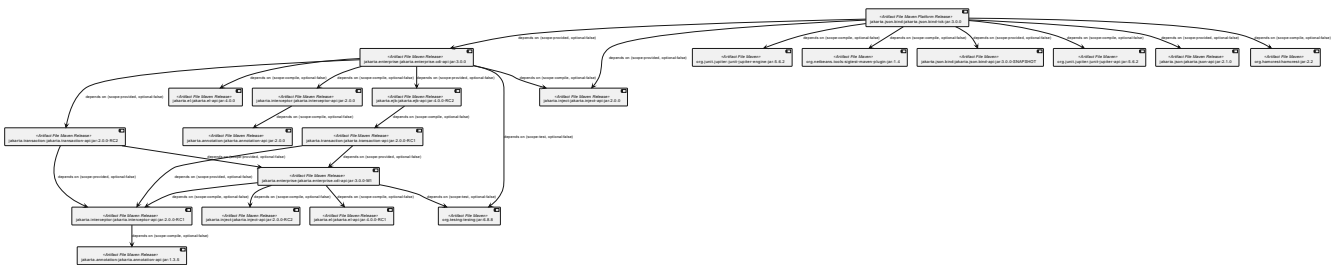


Figure 36. Jakarta JSON Bind TCK 3.0.0 actual

Java SE version:

- specification
  - 8+ (build)
- API
  - 11 (release)
  - 11+ (build)
  - 11 (javadoc)
- TCK
  - 11 (source, target)
  - 11+ (build)

Issues:

- Non-consistent naming
- No parent defined
- TCK uses out-dated CDI 3.0.0!



- TCK referenes [Jakarta Transaction\(s\)!](#)
- TCK uses snapshot version of API!
- Signature test deactivated?
- CVEs
  - [https://bugs.eclipse.org/bugs/show\\_bug.cgi?id=581580](https://bugs.eclipse.org/bugs/show_bug.cgi?id=581580)
- check for dependency and plugin dependency updates

### 3.0.1

Issues:

- Patch Release
  - Patch CVEs
- Fix TCK dependencies?

## 2.2.18. Jakarta Mail

Project: <https://projects.eclipse.org/projects/ee4j.mail>

Source:

- <https://github.com/jakartaee/mail-spec> (specification)
- <https://github.com/jakartaee/mail-api> (API)
- <https://github.com/jakartaee/mail-tck> (TCK)
- <https://github.com/jakartaee/platform-tck> (additional TCK?)

### 2.1.0

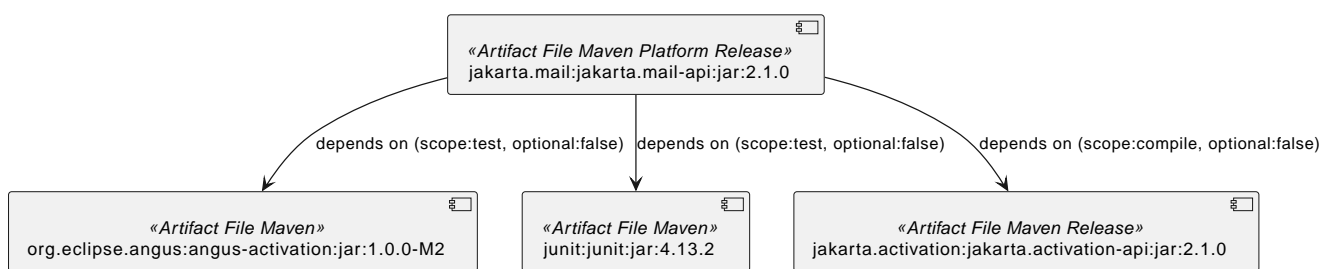


Figure 37. Jakarta Mail API 2.1.0 actual

Java SE version:

- Specification
  - 11+ (build)
- API
  - 8 (release)
  - 9 (module-info.java)

- ? (bundle)
- 11 (javadoc)
- 11+ (build)
- TCK
  - ?

Issues:

- CVEs [https://bugs.eclipse.org/bugs/show\\_bug.cgi?id=581580](https://bugs.eclipse.org/bugs/show_bug.cgi?id=581580)
- Specification README.md need updates
- [Jakarta Platform TCK](#) might require cleanup
- API contains implementation test dependency!
- TCK is not available on Maven Central
- TCK is still script based
- TCK build.xml points to version 2.1 for spec and 2.1.1 for TCK - API version?
- check for dependency and plugin dependency updates

### 2.1.1

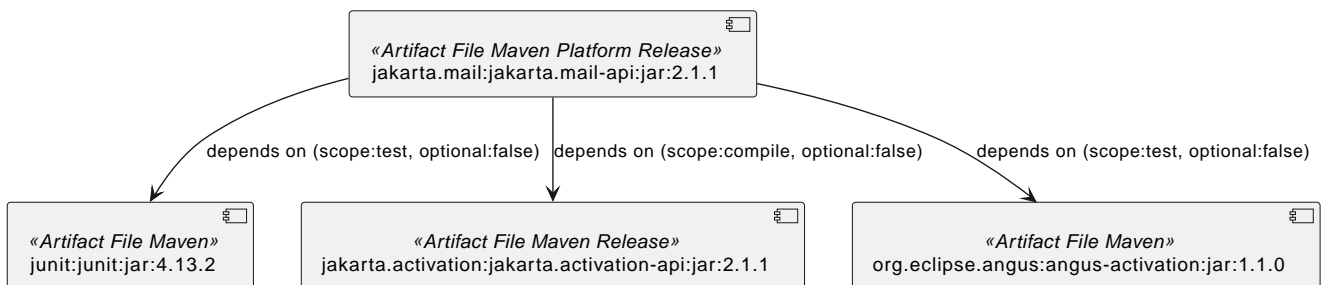


Figure 38. Jakarta Mail API 2.1.1 actual

Java SE version:

- Specification
  - 11+ (build)
- API
  - 8 (release)
  - 9 (module-info.java)
  - 1.8 (bundle)
  - 11 (javadoc)
  - 11+ (build)
- TCK
  - ?

Issues:

TBD

### 2.1.2/2.1.1

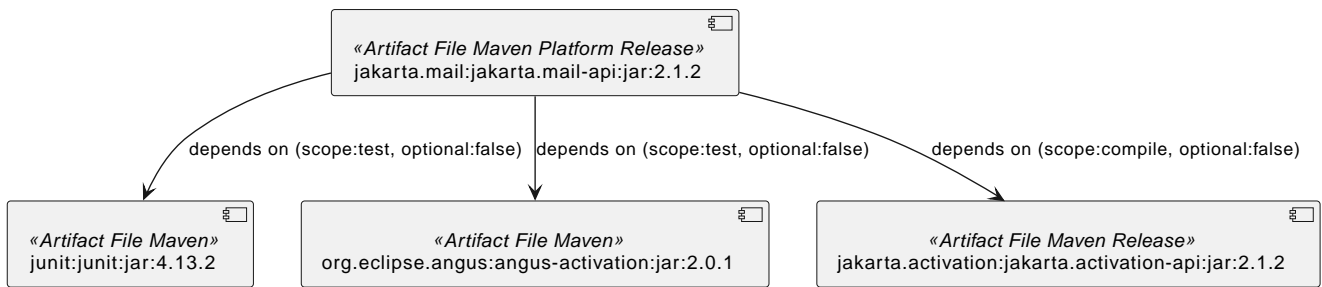


Figure 39. Jakarta Mail API 2.1.2 actual

Java SE version:

- Specification
  - 11+ (build)
- API
  - 8 (release)
  - 9 (module-info.java)
  - 1.8 (bundle)
  - 11 (javadoc)
  - 11+ (build)
- TCK
  - ?

Issues:

TBD

### 2.1.3

Issues:

- Patch Release
  - Patch CVEs
- move implementation test dependency from API to TCK or hide it with Maven Flatten Plugin

## 2.2.19. Jakarta Messaging (JMS)

Project: <https://projects.eclipse.org/projects/ee4j.messaging>

Source:

- <https://github.com/jakartaee/messaging> (specification and API)
- <https://github.com/jakartaee/platform-tck> (TCK)
- <https://github.com/eclipse-ee4j/genericmessagingra> (Generic Messaging Resource Adapter howto)
- <https://github.com/jakartaee/messaging-proposals> (Messaging proposals)

### 3.1.0

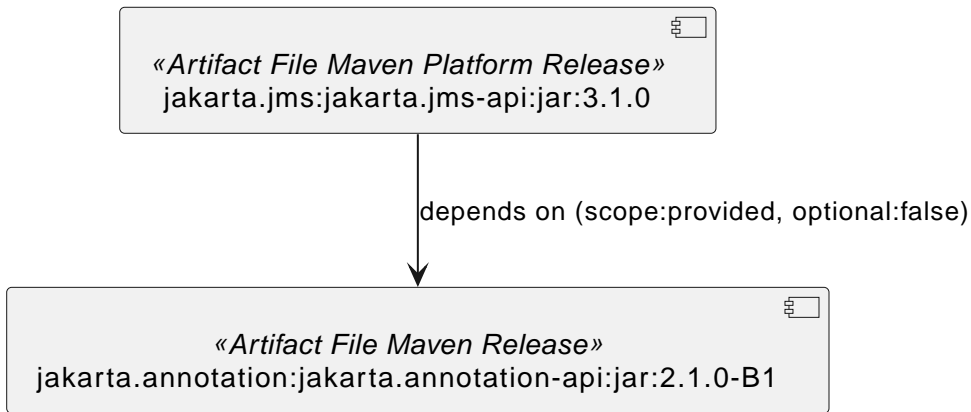


Figure 40. Jakarta JMS API 3.1.0 actual

Java SE version:

- Specification
  - undefined
- API
  - 11 (release)
  - ? (javadoc)
  - ? (bundle)
  - 11+ (build)

Issues:

- Non-consistent naming
- CVEs [https://bugs.eclipse.org/bugs/show\\_bug.cgi?id=581580](https://bugs.eclipse.org/bugs/show_bug.cgi?id=581580)
- Parent and API repo link need updates
- Specification README.md needs update
- API uses out-dated (Patch Release) provided build dependency to [Jakarta Annotation\(s\)](#)
- depends on [Jakarta Platform TCK](#)
- check for dependency and plugin dependency updates

### 3.1.1

Issues:

- Patch Release
  - Patch CVEs
- build dependency is patched already, but not released

## 2.2.20. Jakarta Server Pages (JSP)

Project: <https://projects.eclipse.org/projects/ee4j.jsp>

Source:

- <https://github.com/jakartaee/pages> (specification and API)
- <https://github.com/jakartaee/platform-tck> (TCK)

### 3.1.0

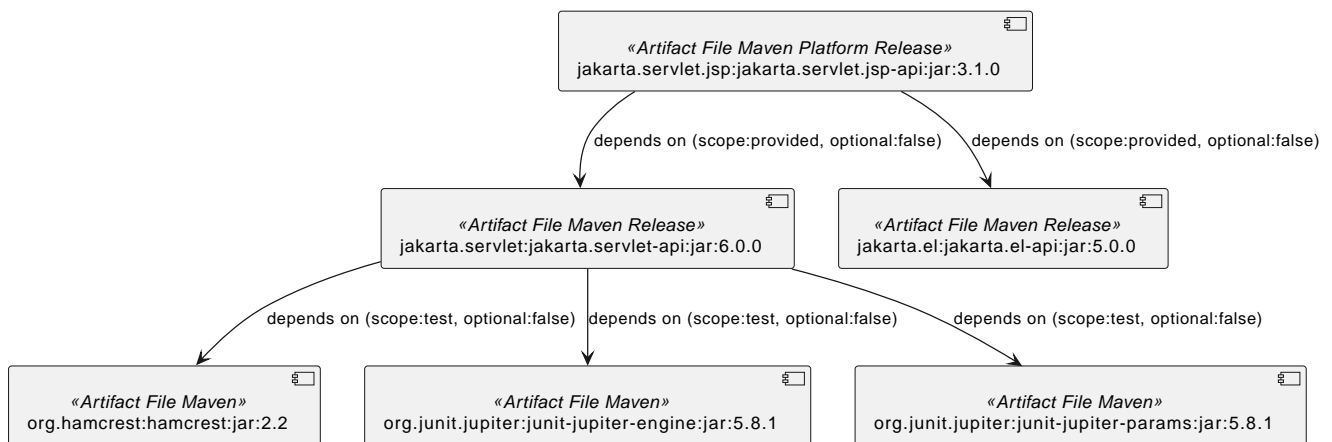


Figure 41. Jakarta Servlet JSP API 3.1.0 actual

Java SE version:

- Specification
  - 1.8 (build)
- API
  - 11 (source, target)
  - 11+ (build)

Issues:

- Non-consistent naming
- CVEs [https://bugs.eclipse.org/bugs/show\\_bug.cgi?id=581580](https://bugs.eclipse.org/bugs/show_bug.cgi?id=581580)
- Parent and API repo link need updates
- depends on [Jakarta Platform TCK](#)
- check for dependency and plugin dependency updates

### 3.1.1

TBD

### 3.1.2

Issues:

- Patch Release
  - Patch CVEs

### 4.0.0

Issues:

- Plan Release

## 2.2.21. Jakarta Servlet

Project: <https://projects.eclipse.org/projects/ee4j.servlet>

Source:

- <https://github.com/jakartaee/pages> (specification and API)
- <https://github.com/jakartaee/platform-tck> (TCK)

### 6.0.0

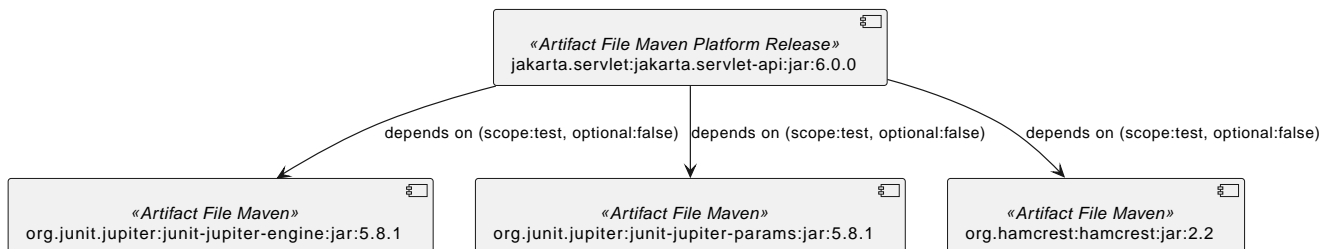


Figure 42. Jakarta Servlet API 6.0.0 actual

Java SE version:

- Specification
  - 1.8+ (build)
- API
  - 11 (source, target)
  - 11+ (build)

Issues:

- CVEs [https://bugs.eclipse.org/bugs/show\\_bug.cgi?id=581580](https://bugs.eclipse.org/bugs/show_bug.cgi?id=581580)
- Parent and specification repo link need updates

- Parent and specification README.md need updates
- depends on [Jakarta Platform TCK](#)
- check for dependency and plugin dependency updates

### 6.0.1

Issues:

- Patch Release
  - Patch CVEs

### 6.1.0

Issues:

- Plan Release

## 2.2.22. Jakarta Standard Tag Library (JSTL)

Project: <https://projects.eclipse.org/projects/ee4j.jstl>

Source:

- <https://github.com/jakartaee/tags> (specification and API)
- <https://github.com/jakartaee/platform-tck> (TCK)

### 3.0.0

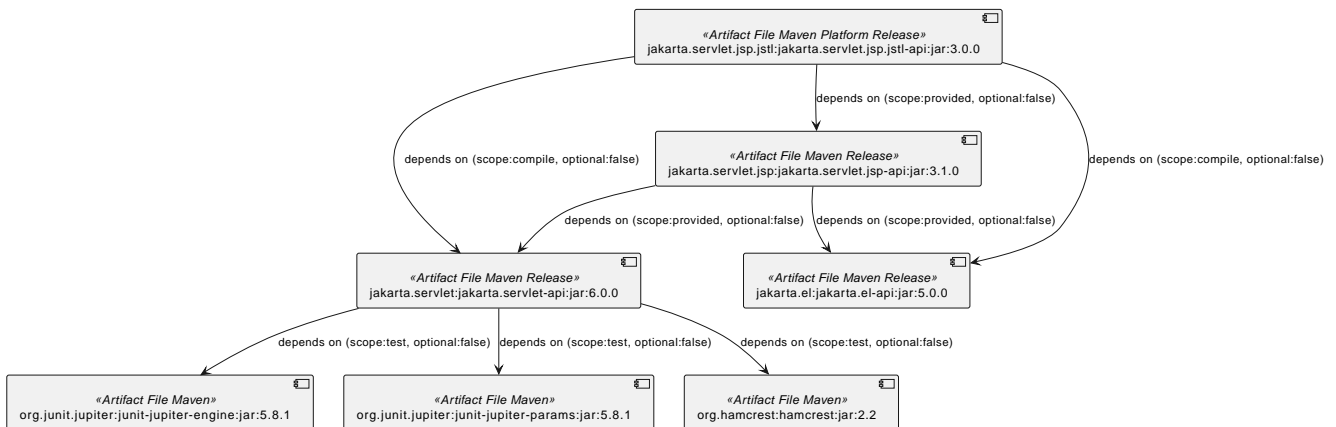


Figure 43. Jakarta Servlet JSP JSTL API 3.0.0 actual

Java SE version:

- Specification
  - undefined
- API
  - 11 (release)
  - 11+ (build)

Issues:

- Non-consistent naming
- CVEs [https://bugs.eclipse.org/bugs/show\\_bug.cgi?id=581580](https://bugs.eclipse.org/bugs/show_bug.cgi?id=581580)
- Parent and API repo link need updates
- depends on [Jakarta Platform TCK](#)
- check for dependency and plugin dependency updates

### 3.0.1

Issues:

- Patch Release
  - Patch CVEs

## 2.2.23. Jakarta Persistence (JPA)

Project: <https://projects.eclipse.org/projects/ee4j.jpa>

Source:

- <https://github.com/jakartaee/persistence> (specification and API)
- <https://github.com/jakartaee/platform-tck> (TCK)

### 3.1.0



Figure 44. Jakarta Persistence API 3.1.0 actual

Java SE version:

- Specification
  - 11+ (build)
- API
  - 11 (release, javadoc)
  - ? (bundle)
  - 11+ (build)

Issues:

- Non-consistent naming (i.e. Eclipse project)



- CVEs [https://bugs.eclipse.org/bugs/show\\_bug.cgi?id=581580](https://bugs.eclipse.org/bugs/show_bug.cgi?id=581580)
- Parent POM is missing
- Specification README.md need updates
- Specification and API repo link need updates
- depends on [Jakarta Platform TCK](#)
- check for dependency and plugin dependency updates

### 3.1.1

Issues:

- Patch Release
  - Patch CVEs
  - Cherry-picking might be required (Java SE version is set to 17 for API already)

### 3.2.0

Issues:

- Minor Release
  - Plan Review

## 2.2.24. Jakarta REST(ful Web Services)

Project: <https://projects.eclipse.org/projects/ee4j.rest>

Source: <https://github.com/jakartaee/rest> (specification, API and TCK)

### 3.1.0/3.1.3

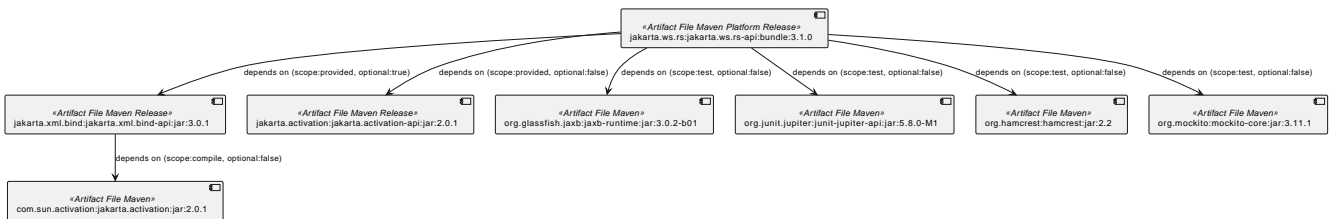


Figure 45. Jakarta REST API 3.1.0 actual



Figure 46. Jakarta REST API JAR 3.1.0 actual



Bug: Existing dependencies (like to [Jakarta Authentication](#) are not shown here!

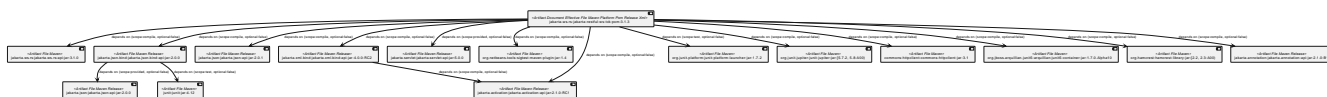


Figure 47. Jakarta REST TCK 3.1.3 actual on Staging

Java SE version:

- specification
  - undefined
- API
  - 11 (release)
  - 11+ (build)
- TCK
  - 11 (source, target)
  - 11+ (build)

Issues:

- Non-consistent naming
- Parent is called **all**
- Spec is not configured as default module on parent POM
- API uses packaging **bundle**
  - <https://github.com/jakartaee/rest/issues/1174>
- TCK is not available on Maven Central
- TCK references out-dated repo for issue management
- Version ranges are used
- Out-dated versions in dependencies, where some where fixed after the release, i.e.:
  - TCK JSON Bind 2.0.0 as compile dependency - Major Release difference!
  - TCK Servlet 5.0.0 as provided dependency - Major Release difference!
  - API Activation 2.0.1 as provided - Minor Release difference!
  - API XML Bind 3.0.1 as provided, optional dependency - Major Release difference!
  - API XML Bind implementation 3.0.2-b01 as test dependency
  - API Mockito Core 3.11.1 → 5.4.0 as test dependency - two Major Releases difference!
  - API others...
- CVEs
  - [https://bugs.eclipse.org/bugs/show\\_bug.cgi?id=581580](https://bugs.eclipse.org/bugs/show_bug.cgi?id=581580)
- FIXME: Run jQA on TCK
  - Run jQA on API → done
  - check possible wave impact → none (manually checked)!

- update TCK dependencies in umbrella specs → done
- create jQA issue for packaging **bundle**
- check for dependency and plugin dependency updates

### 3.1.1/3.1.4

Issues:

- Patch Release
  - Patch CVEs

### 4.0.0

Issues:

- Plan Review

## 2.2.25. Jakarta Security

Project: <https://projects.eclipse.org/projects/ee4j.security>

Source: <https://github.com/jakartaee/security> (specification, API and TCK)

### 3.0.0

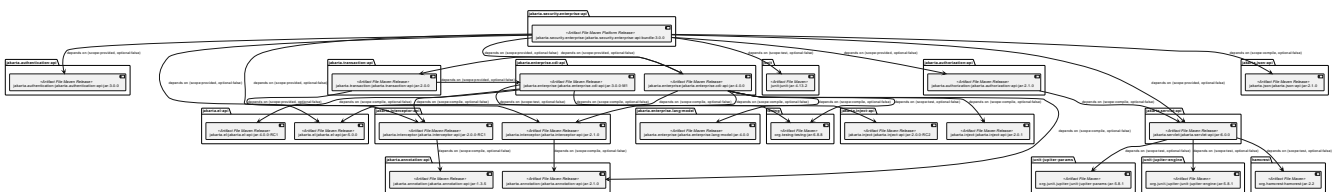


Figure 48. Jakarta Security API 3.0.0 actual



Figure 49. Jakarta Security API 3.0.0 JAR actual



Bug: Existing dependencies (like to [Jakarta Authentication](#) are not shown here!

Java SE version:

- 11 (source, target and in TCK release)
- 11+ (build)

Issues:

- CVEs
  - [https://bugs.eclipse.org/bugs/show\\_bug.cgi?id=581580](https://bugs.eclipse.org/bugs/show_bug.cgi?id=581580)
  - other
- API depends on Platform spec [Jakarta Authorization](#)
- API uses packaging **bundle**
  - <https://github.com/jakartaee/security/issues/293>
- API uses out-dated dependencies (i.e. CDI)
- TCK uses out-dated dependencies (i.e. nimbusds-jose-jwt, jsoup)
- TCK dependency versions not managed (i.e. arquillian-\*)
- TCK is not configured as module on root
- TCK uses strange Maven coordinates (!)
- FIXME: Run jQA on TCK
  - Run jQA on API → done
  - check possible wave impact → changes required (manually checked)!
  - update TCK dependencies in umbrella specs → done
  - create jQA issue for packaging **bundle**

### 3.0.1

Issues:

- Patch Release
  - Patch CVEs
- Fix TCK dependencies

### 4.0.0

Issues:

- Plan Review
- Website out-dated

## 2.2.26. Jakarta Transaction(s)

<https://projects.eclipse.org/projects/ee4j.jta>

Source:

- <https://github.com/jakartaee/transactions> (specification and API)
- <https://github.com/jakartaee/platform-tck> (TCK)

## 2.0.1

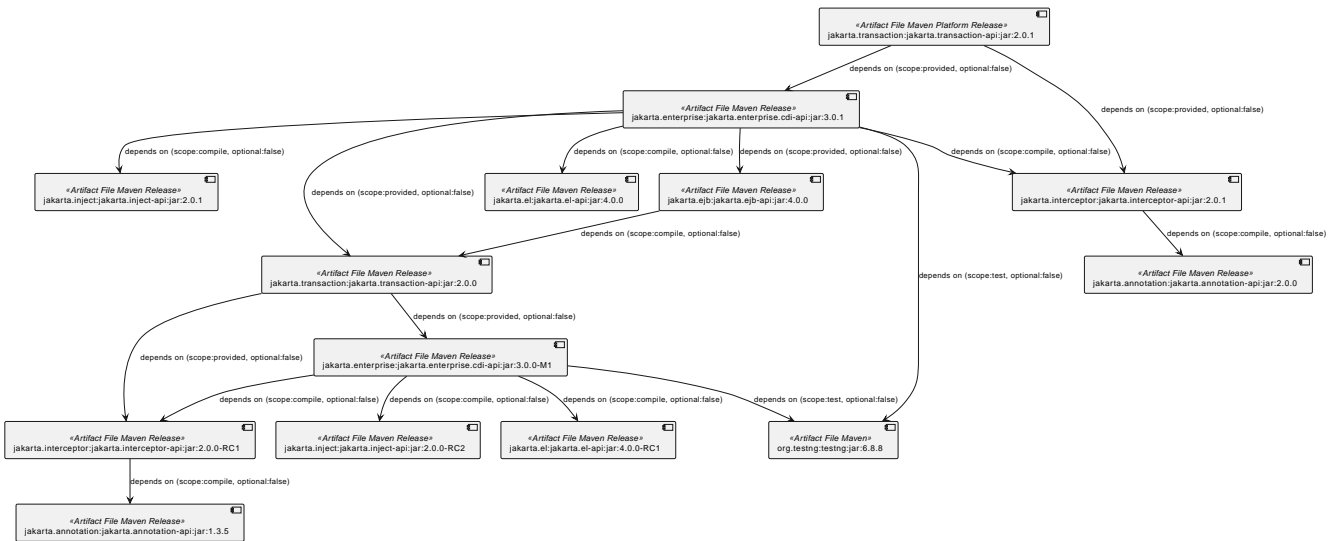


Figure 50. Jakarta Transaction API 2.0.1 actual

Java SE version:

- Specification
  - 11 (build)
- API
  - 11 and 1.8 (source, target)
  - 11 (module-info.java)
  - 1.8 (javadoc)
  - ? (bundle)
  - 11+ (build)

Issues:

- Non-consistent naming
- CVEs [https://bugs.eclipse.org/bugs/show\\_bug.cgi?id=581580](https://bugs.eclipse.org/bugs/show_bug.cgi?id=581580)
- Parent repo link needs update
- Specification README.md needs update
- Specification POM requires fix (for parent)
- API POM requires fix (for parent)
- API uses out-dated (Major Release) provided dependency to CDI that creates a circular dependency!
- API uses out-dated (Minor Release) provided dependency to Interceptor
- depends on [Jakarta Platform TCK](#)
- check for dependency and plugin dependency updates



Potential impact of this circular dependency:

- [Jakarta Platform](#) API (transitive)
- [Jakarta Platform](#) Web Profile API (direct and transitive)
- [Jakarta Batch](#) API (transitive via [Jakarta CDI](#) API 4.0.0)
- [Jakarta Batch](#) TCK (transitive via [Jakarta CDI](#) API 4.0.0, [Jakarta Enterprise \(Java\) Beans \(EJB\)](#) API 4.0.0, [Jakarta Batch](#) API 2.1.0, [Jakarta Enterprise \(Java\) Beans \(EJB\)](#) API 4.0.0, [Jakarta Batch](#) TCK Util 2.1.0)
- [Jakarta CDI](#) TCK Distribution (transitive 5 times)
- [Jakarta CDI](#) TCK Web Impl (direct and transitive)
- [Jakarta Concurrency](#) TCK (transitive via <<sec:jakarta>ejb> API 4.0.1)
- [Jakarta Connectors \(Resource\)](#) API (direct and transitive)
- [Jakarta Enterprise \(Java\) Beans \(EJB\)](#) API (direct)
- [Jakarta Faces](#) API (direct and transitive)
- [Jakarta JSON Bind\(ing\)](#) TCK (transitive)
- [Jakarta Security](#) API (transitive via [Jakarta CDI](#) API 4.0.0)
- [Jakarta Transaction\(s\)](#) API (itself)
- [Jakarta \(Bean\) Validation](#) TCK (transitive)

## 2.0.2

Issues:

- Patch Release
  - Patch CVEs

## 3.0.0

Issues:

- Major Release (TBD)
  - Fix circular dependency
  - Extract TCK (TBD)



To comply with SemVer conventions, this Major Release is required because of breaking changes in respect to the component specification, but not to the umbrella specification, as it requires a newer fixed version(s) already! Affected dependencies in respect to this:

- [Jakarta CDI](#)

### 2.2.27. Jakarta Websocket

Project: <https://projects.eclipse.org/projects/ee4j.websocket>

Source:

- <https://github.com/jakartaee/websocket> (specification and API)
- <https://github.com/jakartaee/platform-tck> (TCK)

### 2.1.0

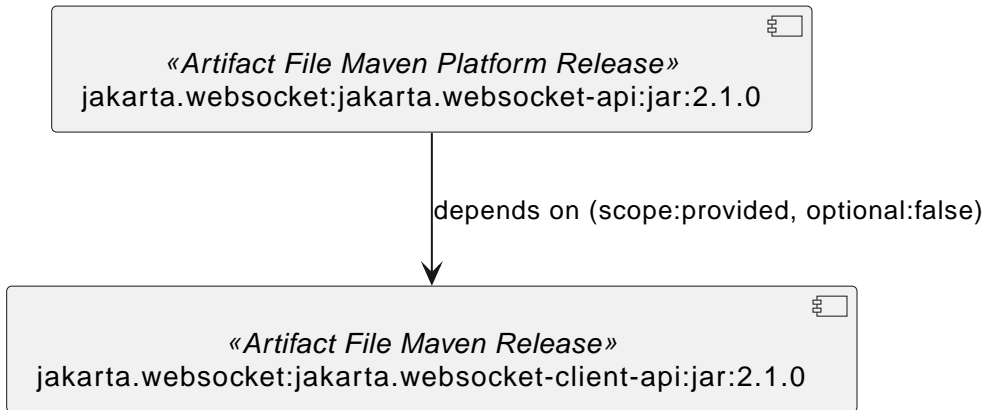


Figure 51. Jakarta WebSocket (Server) API 2.1.0 actual

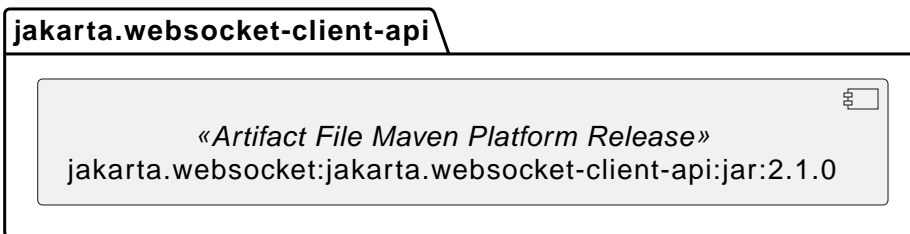


Figure 52. Jakarta WebSocket Client API 2.1.0 actual

Java SE version:

- Specification
  - 1.8(+ ?) (build)
- API Parent
  - 1.8 (source, target, javadoc)
  - ? (bundle)
  - 1.8+ (build)
- API Server
  - 8 (release)
  - 9 (module-info.java)
- API Client
  - 8 (release)
  - 9 (module-info.java)

Issues:

- CVEs [https://bugs.eclipse.org/bugs/show\\_bug.cgi?id=581580](https://bugs.eclipse.org/bugs/show_bug.cgi?id=581580)
- API verify that dependency from server to client (and not the other way around) is not an issue in usage scenarios with JPMS
- API Parent is called "all"
- depends on [Jakarta Platform TCK](#)
- check for dependency and plugin dependency updates

### 2.1.1

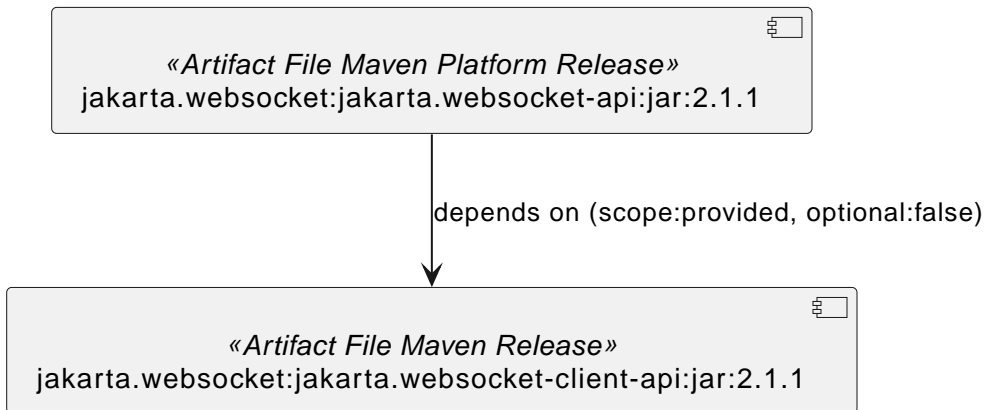


Figure 53. Jakarta Websocket (Server) API 2.1.1 actual

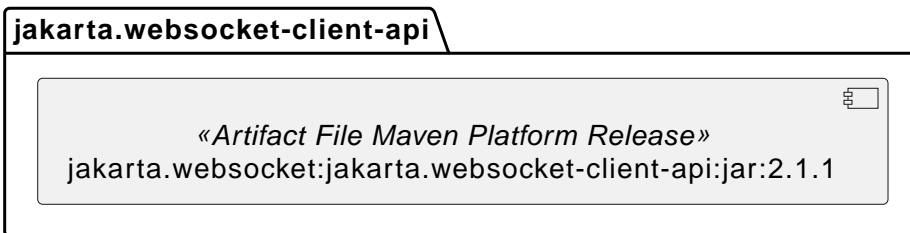


Figure 54. Jakarta Websocket Client API 2.1.1 actual

Java SE version:

- Specification
  - 1.8(+ ?) (build)
- API Parent
  - 1.8 (source, target, javadoc)
  - ? (bundle)
  - 1.8+ (build)
- API Server
  - 8 (release)
  - 9 (module-info.java)
- API Client
  - 8 (release)



- 9 (module-info.java)

Issues:

- Patch Release

TBD

### 2.1.2

Issues:

- Patch Release
  - Patch CVEs

### 2.2.0

- Minor Release
  - Release Plan

## 2.2.28. Jakarta XML Bind(ing)

Project: <https://projects.eclipse.org/projects/ee4j.jaxb>

Source:

- <https://github.com/jakartaee/jaxb-api> (specification and API)
- <https://github.com/jakartaee/jaxb-tck> (TCK)

### 4.0.0

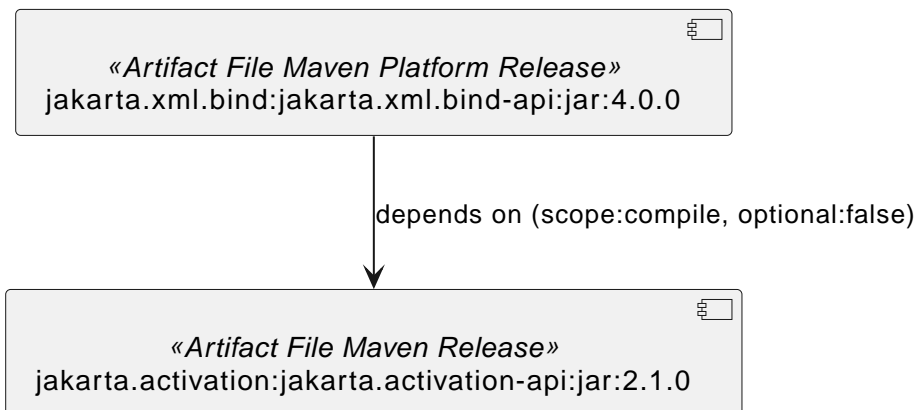


Figure 55. Jakarta XML Bind API 4.0.0 actual

Java SE version:

- Specification
  - 11+ (build)
- API

- 11+ (build)
- 11 (release)
- ? (javadoc, bundle)
- TCK
  - 11, 12, 13, 14, 15 or 16 (regarding [commit message](#))

Issues:

- Non-consistent naming
- CVEs [https://bugs.eclipse.org/bugs/show\\_bug.cgi?id=581580](https://bugs.eclipse.org/bugs/show_bug.cgi?id=581580)
- TCK README.md is out-dated (regarding Java SE version)
- TCK is not available on Maven Central
- TCK is still script based
- TCK tck.properties points to version 3.0
- check for dependency and plugin dependency updates

#### 4.0.1

Issues:

- Patch Release
  - Patch CVEs

### 2.2.29. Jakarta (XML) SOAP with Attachments (SAAJ)

Project: <https://projects.eclipse.org/projects/ee4j.jaxws> (Jakarta XML Web Services project)

Source:

- <https://github.com/jakartaee/saaj-api> (specification and API)
- <https://github.com/jakartaee/platform-tck> (TCK)

#### 3.0.0

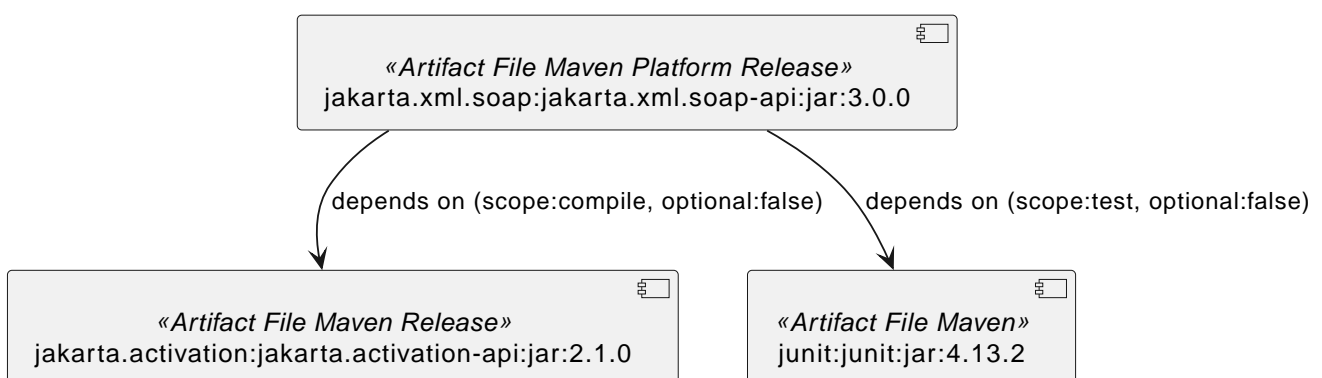


Figure 56. Jakarta XML SOAP API 3.0.0 actual

Java SE version:

- Specification
  - 11+ (build)
- API
  - undefined (release, bundle, javdoc)
  - 11+ (build)

Issues:

- Non-consistent naming
- CVEs [https://bugs.eclipse.org/bugs/show\\_bug.cgi?id=581580](https://bugs.eclipse.org/bugs/show_bug.cgi?id=581580)
- Parent POM is missing
- Specification source high lighter need to be fixed in POM
- Specification and API repo link needs update
- API contains test dependency (only?)
- depends on [Jakarta Platform TCK](#)
- check for dependency and plugin dependency updates

### 3.0.1

Issues:

- Patch Release
  - Patch CVEs

## 2.2.30. Jakarta XML Web Services

Project: <https://projects.eclipse.org/projects/ee4j.jaxws>

Source:

- <https://github.com/jakartaee/jax-ws-api> (specification and API)
- <https://github.com/jakartaee/platform-tck> (TCK)

### 4.0.0

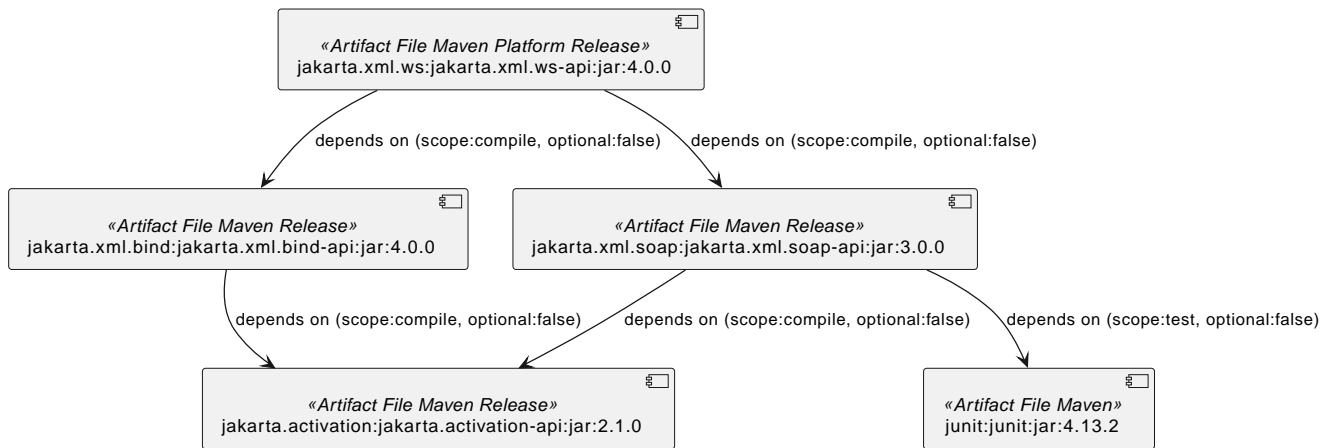


Figure 57. Jakarta XML Web Services API 4.0.0 actual

Java SE version:

- Specification
  - 11+ (build)
- API
  - 11 (release, javadoc)
  - ? (bundle)
  - 11+ (build)

Issues:

- Non-consistent naming (i.e. plural form, project name, Maven coordinates)
- CVEs [https://bugs.eclipse.org/bugs/show\\_bug.cgi?id=581580](https://bugs.eclipse.org/bugs/show_bug.cgi?id=581580)
- Parent POM is missing
- Specification README.md is out-dated (regarding Java SE version)
- Specification source high lighter need to be fixed in POM
- Specification and API repo link needs update
- API contains tests (script based)
- depends on [Jakarta Platform TCK](#)
- check for dependency and plugin dependency updates

#### 4.0.1

Issues:

- Patch Release
  - Patch CVEs

## 2.2.31. Jakarta (XML) Web Service Metadata

Project: <https://projects.eclipse.org/projects/ee4j.jaxws> (Jakarta XML Web Services project)

Source:

- <https://github.com/jakartaee/jws-api> (specification and API)
- <https://github.com/jakartaee/platform-tck> (TCK)

### 3.0.0



Figure 58. Jakarta XML Web Service Metadata API 3.0.0 actual

Java SE version:

- Specification
  - x < 1.9 or 11+ (build)
- API
  - 8 (release)
  - 9 (module-info.java)
  - 11 (javadoc)
  - ? (bundle)
  - 11+ (build)

Issues:

- Stand-alone now?
- Non-consistent naming
- CVEs [https://bugs.eclipse.org/bugs/show\\_bug.cgi?id=581580](https://bugs.eclipse.org/bugs/show_bug.cgi?id=581580)
- Parent POM is missing
- Specification README.md is out-dated (regarding Java SE version)
- Specification enforcer configuration need to be checked
- Specification source high lighter need to be fixed in POM
- Specification and API repo link needs update
- depends on [Jakarta Platform TCK](#)
- check for dependency and plugin dependency updates

### 3.0.1

Issues:

- Patch Release
  - Patch CVEs

## 2.3. Jakarta Stand-alone Component Specifications

- Jakarta Config (TBD, subset of [MicroProfile Config](#))
- [Jakarta Data](#) (TBD, will become part of [Jakarta Platform 11.0.0](#) Web Profile)
- Jakarta Debugging Support for Other Languages
- Jakarta Deployment
- Jakarta Managed Beans (TBD, of Jakarta Platform project, stand-alone since 11.0.0)
- Jakarta Management (TBD, part of Jakarta XML RPC)
- [Jakarta MVC](#)
- [Jakarta NoSQL](#)
- Jakarta RPC
- Jakarta XML Registries
- Jakarta XML RPC
- [Jakarta \(XML\) Web Service Metadata](#) (since [Jakarta Platform 10.0.0](#) stand-alone, 3.0.0 is merged into [Jakarta XML Web Services 4.0.0](#))

### 2.3.1. Jakarta Data

Project: <https://projects.eclipse.org/projects/ee4j.data>

Source:

- <https://github.com/jakartaee/data> (specification, API and TCK)

#### 1.0.0

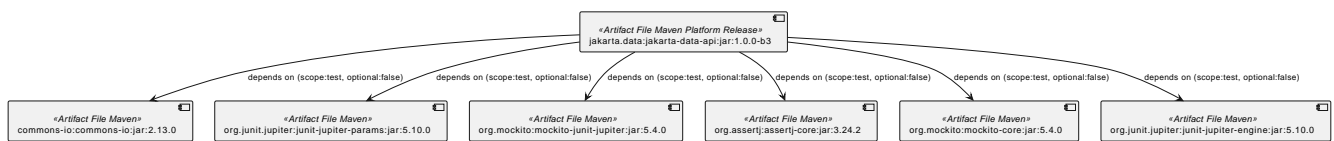


Figure 59. Jakarta Data API 1.0.0-b3 actual



Figure 60. Jakarta Data TCK 1.0.0-b3 actual



Figure 61. Jakarta Data TCK Dist 1.0.0-b3 actual

Java SE version:

- 17+

Issues:

- Final version not released yet
- Deviating Maven artifactId naming (in Jakarta EE, but follows Maven conventions)
- API contains test (dependencies)
- TCK has dependency to [Jakarta NoSQL](#) (outside the [Jakarta Platform](#))!



Will be added to [Jakarta Platform](#) Web Profile 11.0.0.

### 2.3.2. Jakarta MVC

Project: <https://projects.eclipse.org/projects/ee4j.mvc>

Source:

- <https://github.com/jakartaee/mvc> (specification and API)
- <https://github.com/jakartaee/mvc-tck> (TCK)

#### 2.1.0



Figure 62. Jakarta MVC API 2.1.0 actual

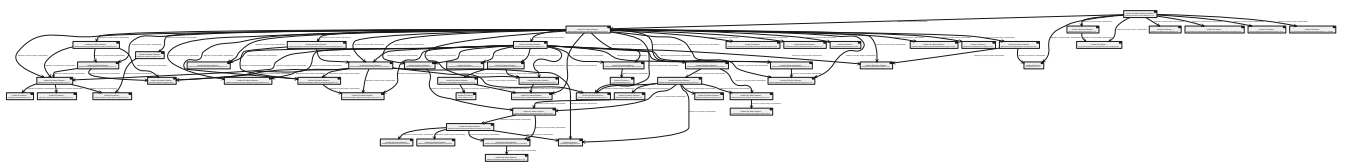


Figure 63. Jakarta MVC TCK 2.1.0 actual on Staging

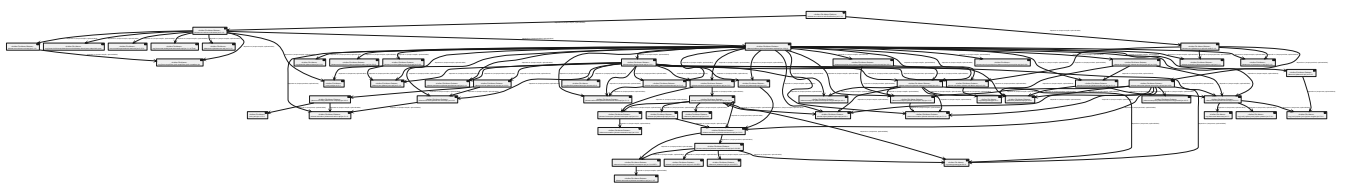


Figure 64. Jakarta MVC TCK Distribution 2.1.0 actual on Staging

Java SE version:

- 11+

Issues:

- TCK has deviating Maven artifactId/groupID naming (in Jakarta EE)
- TCK has dependency to [Jakarta Platform](#) Web Profile
- TCK is not available on Maven Central

### 3.0.0



Figure 65. Jakarta MVC API 3.0.0.M1 actual on Staging

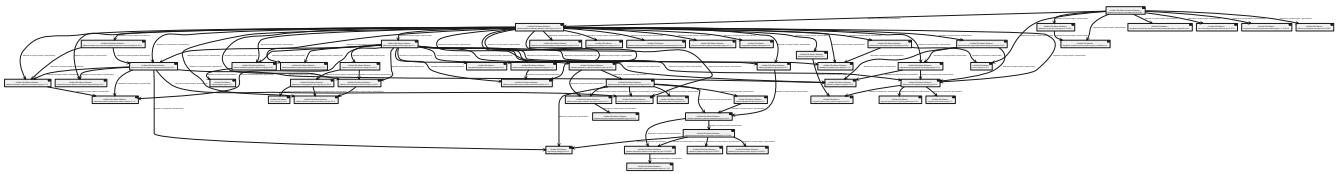


Figure 66. Jakarta MVC TCK Tests 3.0.0.M1 actual on Staging

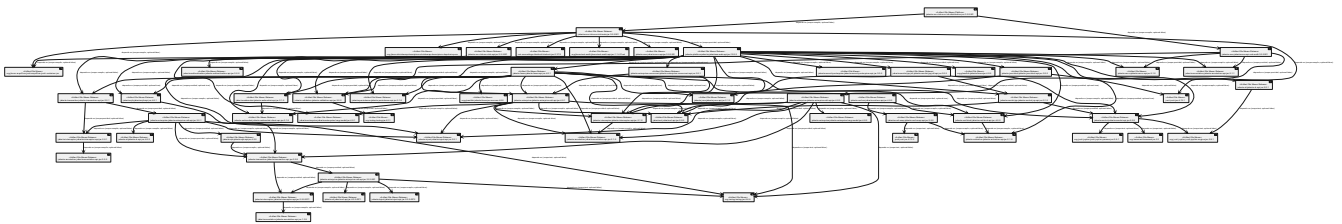


Figure 67. Jakarta MVC TCK Distribution 3.0.0.M1 actual on Staging

Java SE version:

- 11+

Issues:

- TCK has deviating Maven artifactId/groupID naming (in Jakarta EE)
- TCK has dependency to [Jakarta Platform](#) Web Profile
- TCK is not available on Maven Central

### 2.3.3. Jakarta NoSQL

Project: <https://projects.eclipse.org/projects/ee4j.nosql>

Source:

- <https://github.com/jakartaee/nosql> (specification, API and TCK)

### 1.0.0



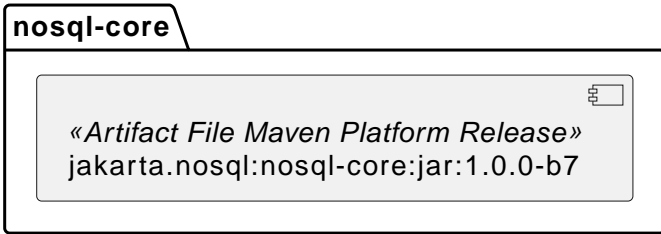


Figure 68. Jakarta NoSQL API Core 1.0.0-b7 actual

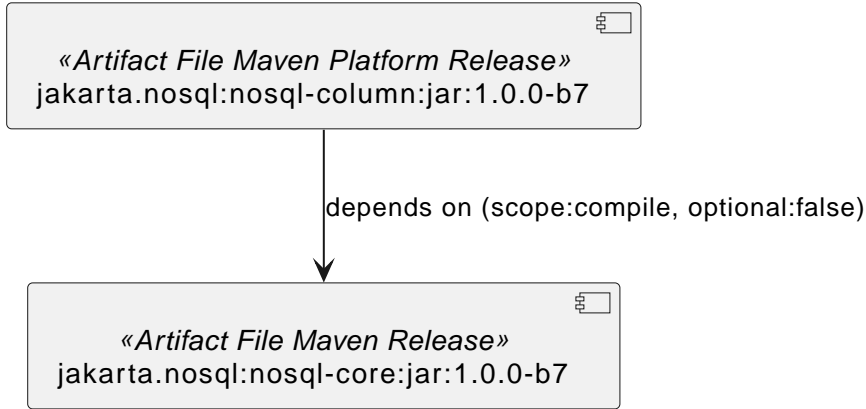


Figure 69. Jakarta NoSQL API Column 1.0.0-b7 actual

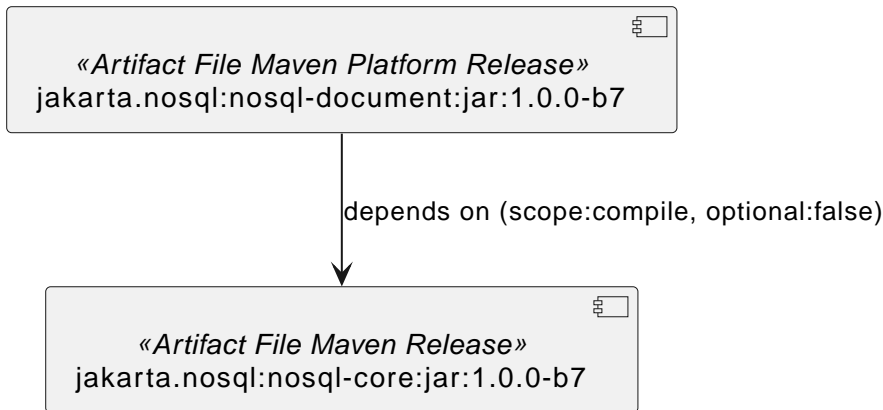


Figure 70. Jakarta NoSQL API Document 1.0.0-b7 actual

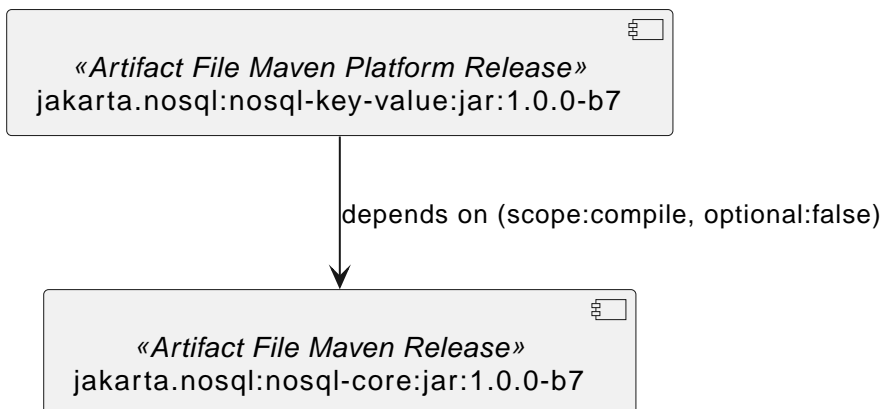


Figure 71. Jakarta NoSQL API Key Value 1.0.0-b7 actual

Java SE version:

- 17+

Issues:

- Final version not released yet
- Deviating Maven artifactId naming (in Jakarta EE, but follows Maven conventions)
- TCK is missing!

## 2.4. Jakarta Parent

### 2.4.1. Eclipse EE4J (Parent) Project

1.0.8

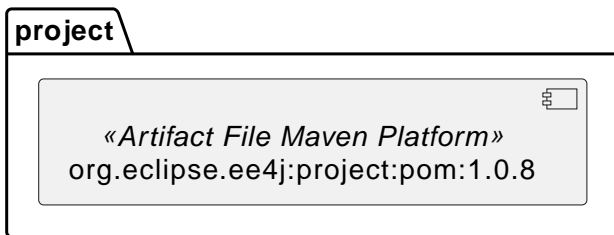


Figure 72. Eclipse EE4J Project 1.0.8 actual

Issues:

- Inconsistent naming
- Parent for implementations and specifications - may be conflicting regarding scope and responsibility
- Adoption of updates is poor in depending projects
- Depending projects do not make proper use of parent features/configurations
- check for dependency and plugin dependency updates

# Chapter 3. MicroProfile

<https://microprofile.io>

Project: <https://projects.eclipse.org/projects/technology.microprofile>



MicroProfile is organized within one single Eclipse Foundation Project. The specifications using a Maven multi-module setup with a common parent as default.

## 3.1. MicroProfile Umbrella Specifications

### 3.1.1. MicroProfile (Platform)

Source: <https://github.com/eclipse/microprofile> (specification only)

#### 6.0.0

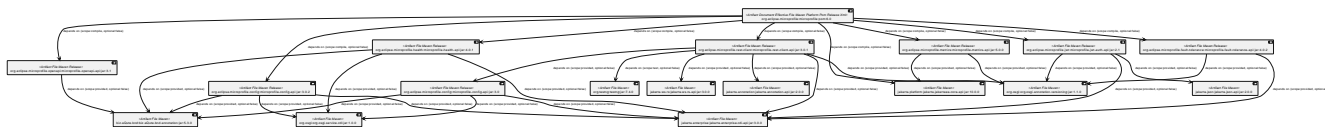


Figure 73. MicroProfile POM 6.0.0 actual

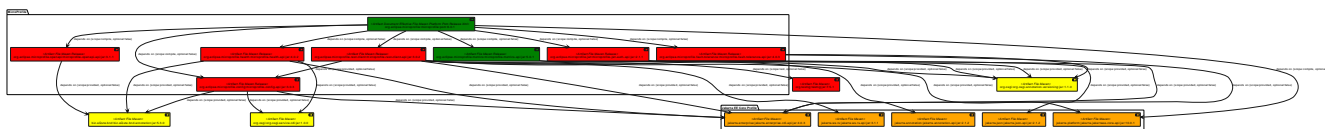


Figure 74. MicroProfile POM 6.0.1 target

TBD:

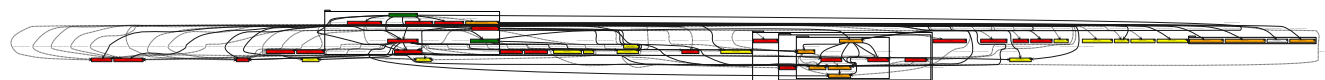


Figure 75. MicroProfile POM 6.0.1 target including TCK dependencies

## 3.2. MicroProfile Component Specifications

### 3.2.1. MicroProfile Config

Source: <https://github.com/eclipse/microprofile-config>

#### 3.0.3

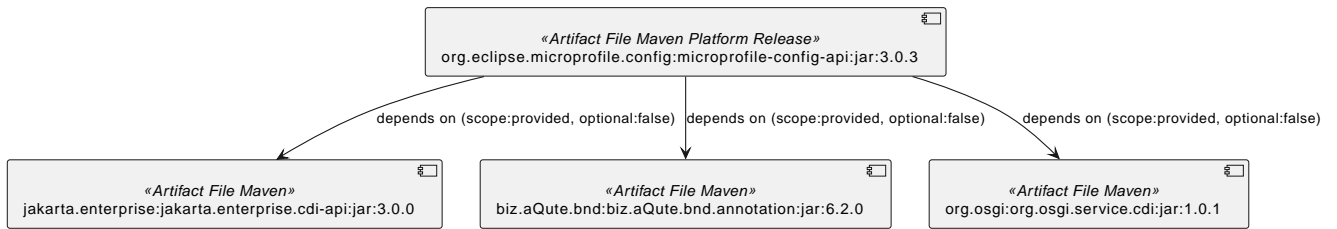


Figure 76. MicroProfile Config API 3.0.3 actual

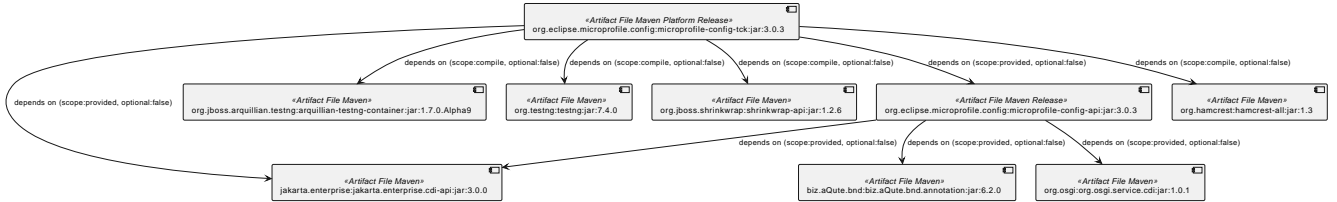


Figure 77. MicroProfile Config TCK 3.0.3 actual

Issues:

- TCK contains Jakarta CDI 3.0.0 (!) dependency to API additionally

### 3.2.2. MicroProfile Fault Tolerance

Source: <https://github.com/eclipse/microprofile-fault-tolerance>

#### 4.0.2

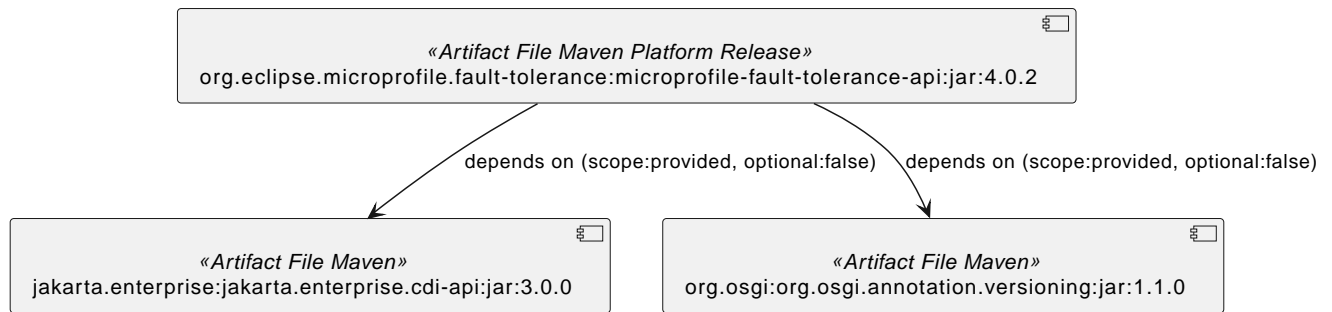


Figure 78. MicroProfile Fault Tolerance API 4.0.2 actual

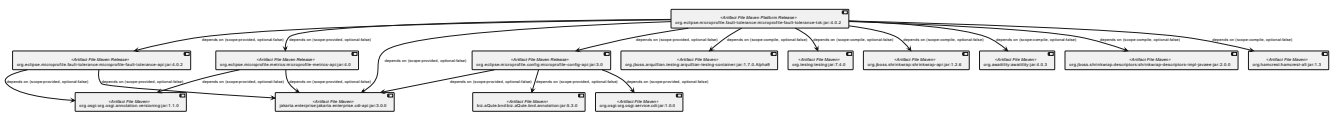


Figure 79. MicroProfile Fault Tolerance TCK 4.0.2 actual

Issues:

- API contains MP Config 3.0 (!) dependency
- TCK contains MP Config 3.0 (!) dependency
- TCK contains MP Metrics 4.0 (!) dependency
- TCK contains Jakarta CDI 3.0.0 (!) dependency to API additionally

### 3.2.3. MicroProfile Health

Source: <https://github.com/eclipse/microprofile-health>

#### 4.0.1

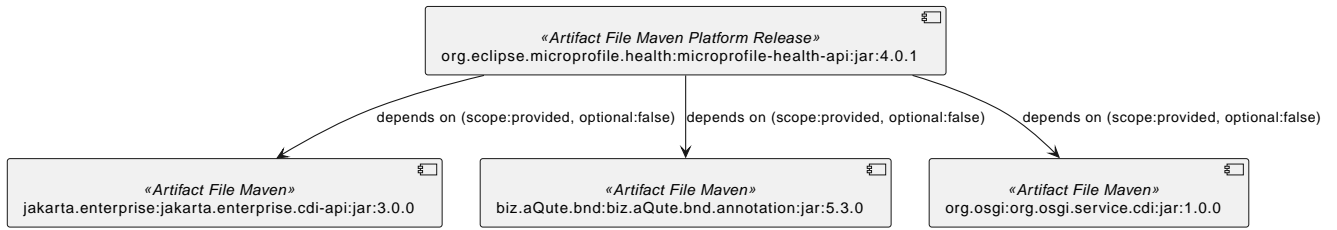


Figure 80. MicroProfile Health API 4.0.1 actual

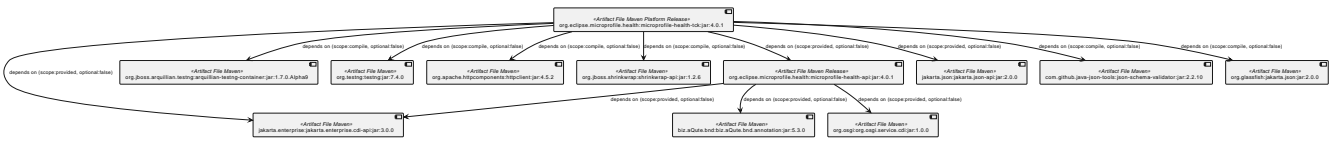


Figure 81. MicroProfile Health TCK 4.0.1 actual

Issues:

- TCK contains Jakarta CDI 3.0.0 (!) dependency to API additionally
- TCK contains Jakarta JSON 2.0.0 (!) dependency
- TCK contains Glasfish JSON implementation
- TCK contains outdated dependencies

### 3.2.4. MicroProfile JWT

Source: <https://github.com/eclipse/microprofile-jwt-auth>

#### 2.1

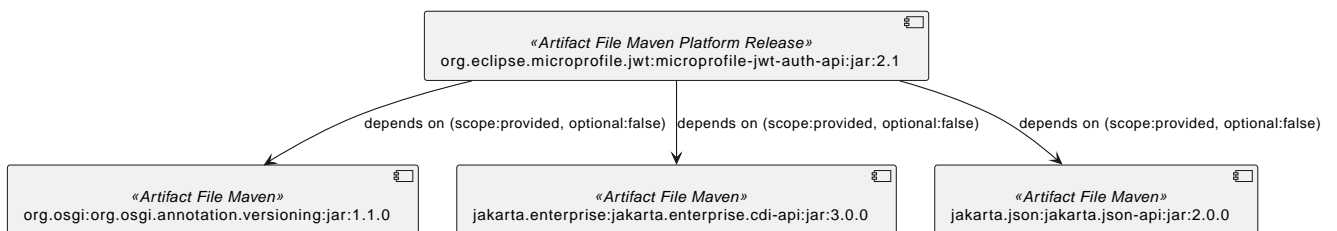


Figure 82. MicroProfile JWT API 2.1 actual

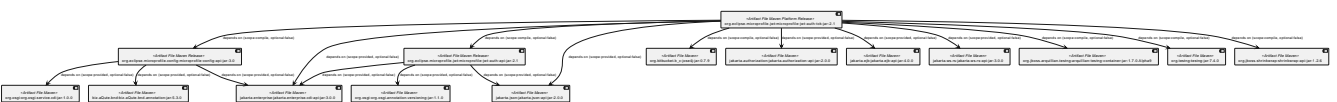


Figure 83. MicroProfile JWT TCK 2.1 actual

Issues:

- Spec needs name normalization
- TCK MP Config has compile dependency!

- TCK MP Config version is outdated
- TCK Jakarta EJB is not part of Jakarta Core Profile
- TCK Jakarta EJB version is outdated
- TCK contains Jakarta CDI 3.0.0 (!) dependency to API additionally
- TCK Jakarta REST version is outdated
- TCK contains Jakarta JSON 2.0.0 (!) dependency to API additionally
- TCK Jakarta REST version is outdated Non-semver versioning scheme

### 3.2.5. MicroProfile Metrics

Source: <https://github.com/eclipse/microprofile-metrics>

#### 5.0.0

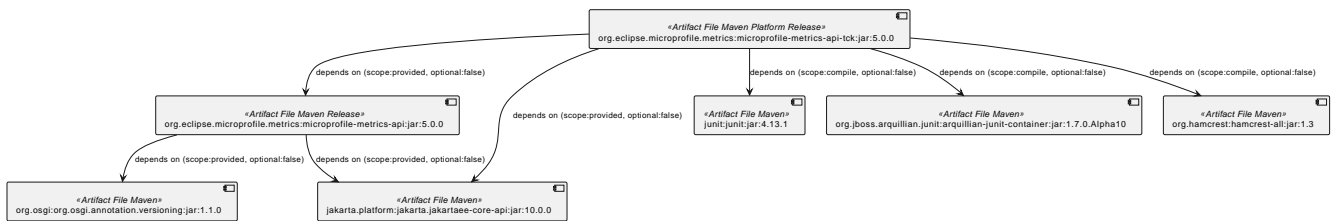


Figure 84. MicroProfile Metrics API 5.0.0 actual

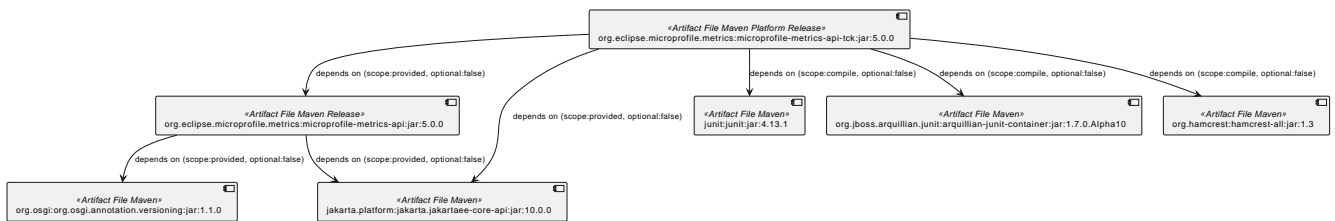


Figure 85. MicroProfile Metrics API TCK 5.0.0 actual

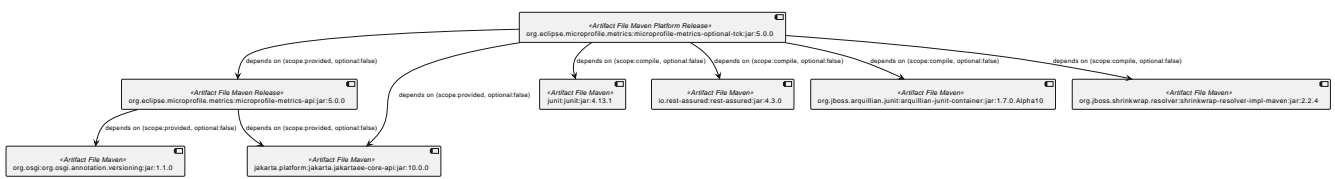


Figure 86. MicroProfile Metrics Optional TCK 5.0.0 actual

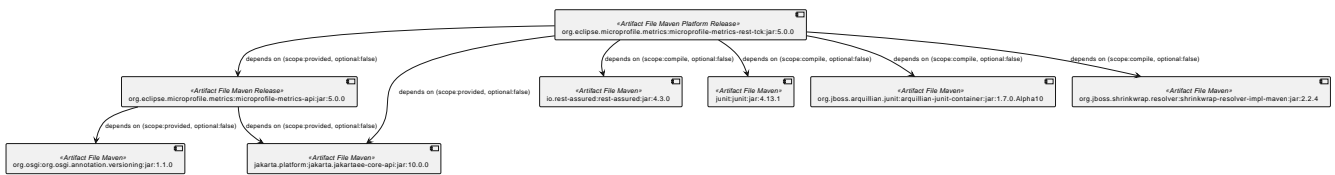


Figure 87. MicroProfile Metrics REST TCK 5.0.0 actual

#### Issues:

- API contains outdated dependency
- TCK contains Jakarta Core Profile 10.0.0 dependency to API additionally
- TCK contains outdated dependencies

### 3.2.6. MicroProfile REST Client

Source: <https://github.com/eclipse/microprofile-rest-client>

#### 3.0.1

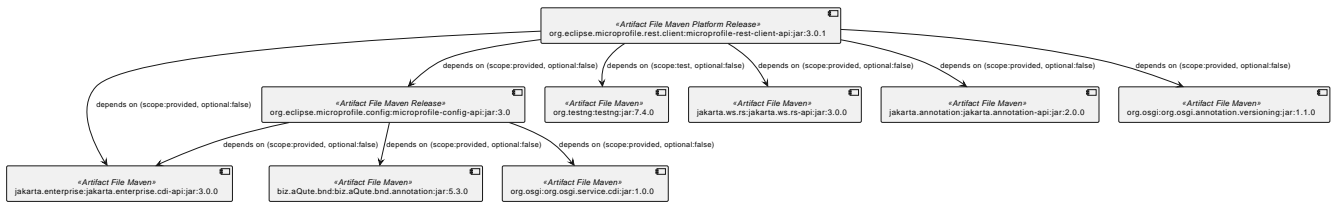


Figure 88. MicroProfile REST Client API 3.0.1 actual

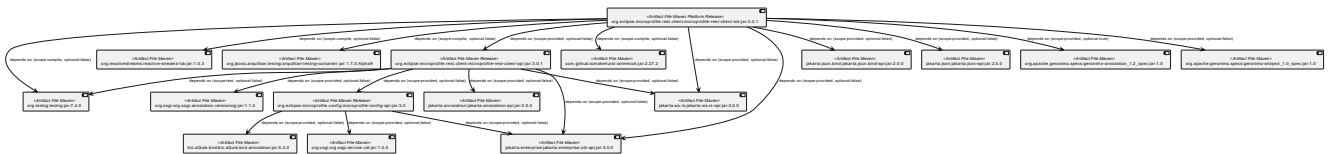


Figure 89. MicroProfile REST Client TCK 3.0.1 actual

Issues:

- API contains MP Config 3.0 (!) dependency
- API contains a lot of outdated dependencies
- TCK contains Jakarta CDI 3.0.0 (!) dependency to API additionally
- TCK contains Jakarta REST 3.0.0 (!) dependency to API additionally
- TCK contains Jakarta JSON Bind 2.0.0 (!) dependency
- TCK contains Jakarta JSON 2.0.0 (!) dependency
- TCK contains outdated implementation spec version Geronimo Annotation 1.2 additionally
- TCK contains outdated implementation spec version Geronimo AtInject 1.0 additionally

### 3.2.7. MicroProfile OpenAPI

Source: <https://github.com/eclipse/microprofile-open-api>

#### 3.1

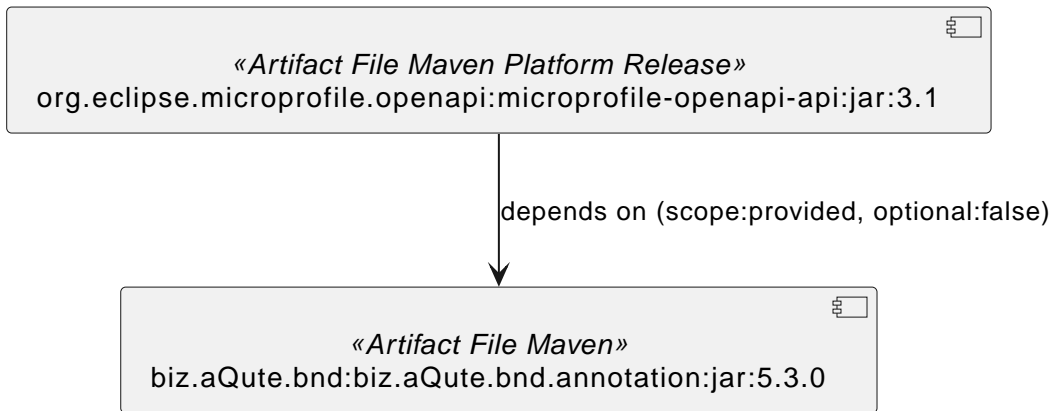


Figure 90. MicroProfile OpenAPI API 3.1 actual

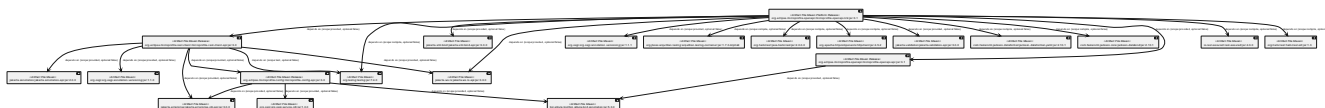


Figure 91. MicroProfile OpenAPI TCK 3.1 actual

Issues:

- TCK Java Hamcrest package must be replaced with it's successor Hamcrest
- TCK Jakarta Validation is not part of the Core Profile
- TCK Jakarta Validation version is outdated
- TCK Jakarta REST dependency version is outdated
- TCK MP REST Client version is outdated
- Jackson dependencies scope deviates
- TCK OSGi Annotation Versioning version is outdated
- TCK contains outdated dependencies

### 3.2.8. MicroProfile Telemetry (Tracing)

Source: <https://github.com/eclipse/microprofile-telemetry>

1.0.0



This specification has no API artifact (yet), as the API of OpenTelemetry is used directly.

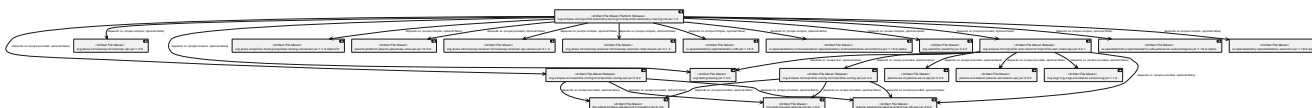


Figure 92. MicroProfile Telemetry Tracing TCK 1.0.0 actual

Issues:

- TCK contains compile dependencies to OpenTelemetry