

Mission accomplished - Deploy to Maven Central





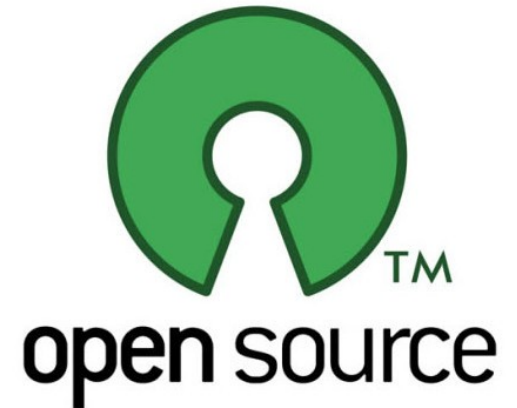
 **ELMAR DOTT**

(M. Schulz) studied at HS Merseburg, Germany, computer science and holds an engineers degree in software engineering. He tweets regularly about several technical topics. The main topics in his field of work are Build and Configuration Management, Software Architecture and Release Management.

About more than 15 years he is working in different large Web Application projects all over the world. He is an independent consultant / trainer. To share his knowledge he gives talks on conferences, if he is not writing on a new article about software engineering. <https://elmar-dott.com>

+ Consultant + Writer + Speaker + Trainer +

- ➊ What is a Repository Manager?
- ➋ Sonatype Nexus OSS
- ➌ Publishing Sources and Artifacts
- ➍ How to prepare your project.
- ➎ Register your repository
- ➏ Uploads & Artifact validation



DEPENDENCY MANAGEMENT

JavaScript



Bower

DockerHub



docker

Java



.NET



Each platform & also almost each build tool have an own dependency management to deal with artifacts.

REPOSITORY MANAGER

- build tools, dependency management, packet manager & repository manager
- essential part of the build / CI-CD infrastructure
- speed up the build & deploy pipeline
- storage and archive binary artifacts
- deal with multiple formats
- two major providers JFrog Artifactory & **Sonatype Nexus OSS**

SONATYPE NEXUS OSS

Sonatype Nexus Repository Manager
OSS 3.35.0-02

Search components

ElmarDott Sign out

Browse

Welcome

Search

Browse

Upload

Browse Browse assets and components

Filter

	Name ↑	Type	Format	Status	URL	Health check	IQ Policy Vi...	
	3rd-party	hosted	maven2	Online	copy	⊘	⊘	>
	maven-central	proxy	maven2	Online - Remote Av...	copy	🛡️ 126 🧑 467	⊘	>
	maven-public	group	maven2	Online	copy	⊘	⊘	>
	maven-releases	hosted	maven2	Online	copy	⊘	⊘	>
	maven-snapshots	hosted	maven2	Online	copy	⊘	⊘	>
	nuget.org-proxy	proxy	nuget	Online - Ready to C...	copy	🛡️ 0 🧑 0	⊘	>

MAVEN DEPLOYMENT

POM – consume a repository

```
<repositories>
  <repository>
    <id>nexus-oss</id>
    <url>http://localhost:8082/repository/maven-public/</url>
  </repository>
</repositories>
```

SETTINGS - credentials

```
<servers>
  <server>
    <id>nexus-oss</id>
    <username>mvn-deployer</username>
    <password>#myS3cr3t#</password>
  </server>
</servers>
```

POM – deploy artifacts

```
<distributionManagement>
  <snapshotRepository>
    <id>nexus-oss</id>
    <url>${release.repo}</url>
  </snapshotRepository>
  <repository>
    <id>nexus-oss</id>
    <url>${snapshot.repo}</url>
  </repository>
  <site>
    <id>webdav</id>
    <name>Local deployed site</name>
    <url>${site.repo}</url>
  </site>
</distributionManagement>
```

local repository



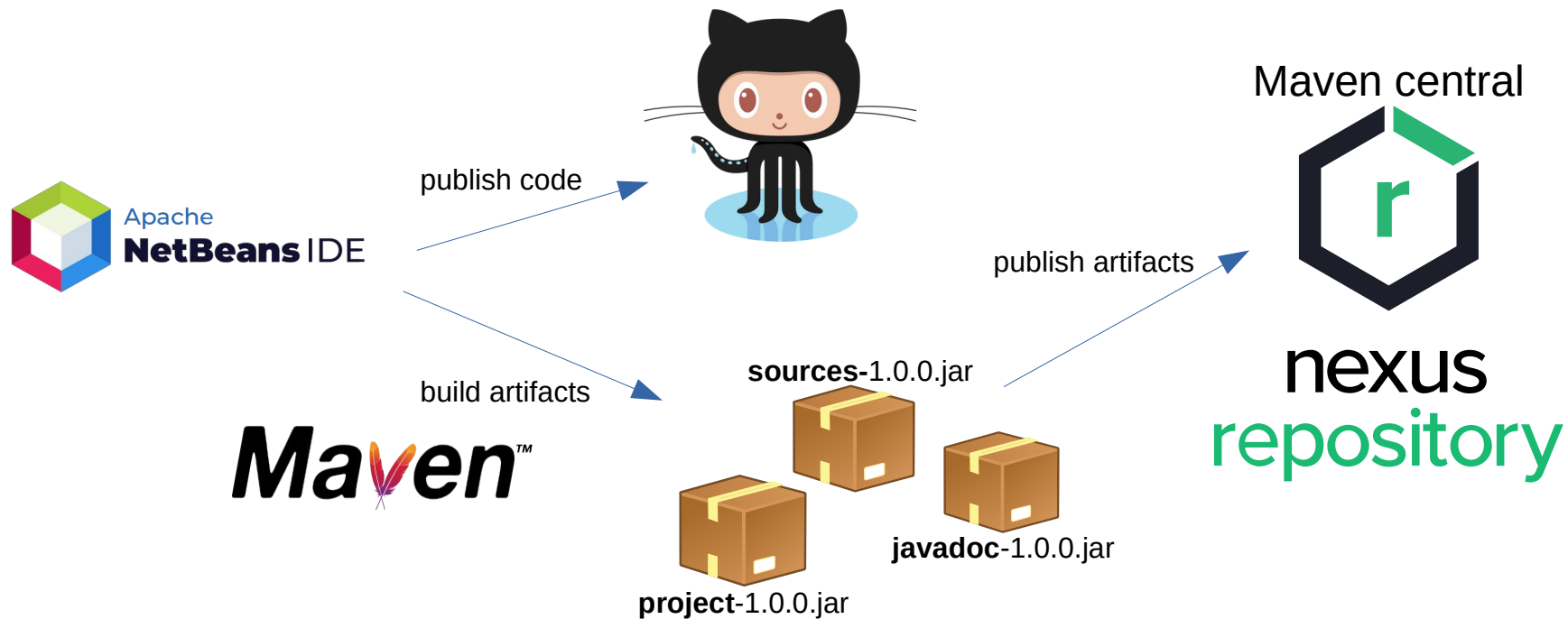
mvn install

remote repository



mvn deploy

FROM GITHUB 2 MVN CENTRAL



MAVEN PLUGINS

```
<plugin>
  <groupId>org.apache.maven.plugins</groupId>
  <artifactId>maven-javadoc-plugin</artifactId>
  <version>3.3.0</version>
  <executions>
    <execution>
      <id>attach-javadocs</id>
      <goals>
        <goal>jar</goal>
      </goals>
    </execution>
  </executions>
</plugin>
<plugin>
  <groupId>org.apache.maven.plugins</groupId>
  <artifactId>maven-source-plugin</artifactId>
  <version>3.2.1</version>
  <executions>
    <execution>
      <phase>package</phase>
      <goals>
        <goal>jar-no-fork</goal>
        <goal>test-jar-no-fork</goal>
      </goals>
    </execution>
  </executions>
</plugin>
```

```
<plugin>
  <groupId>org.apache.maven.plugins</groupId>
  <artifactId>maven-jar|war|ear-plugin</artifactId>
  <version>3.2.0</version>
</plugin>
<plugin>
  <groupId>org.apache.maven.plugins</groupId>
  <artifactId>maven-gpg-plugin</artifactId>
  <version>1.6</version>
  <executions>
    <execution>
      <id>sign-artifacts</id>
      <phase>verify</phase>
      <goals>
        <goal>sign</goal>
      </goals>
    </execution>
  </executions>
  <configuration>
    <keyname>myKey</keyname>
    <passphraseServerId>mySecret</passphraseServerId>
  </configuration>
</plugin>
```

REGISTER AT SONATYPE JIRA

The screenshot shows a Jira issue page for 'New Project TogetherPlatform' in the 'Community Support - Open Source Project Repository Hosting' project (OSSRH-38818). The issue is in a 'CLOSED' state. The page layout includes a top navigation bar with 'sonatype' branding and menu items like 'Dashboards', 'Projects', 'Issues', 'Boards', 'Issue Templates', and 'Create'. A search bar and user profile icons are also present. The main content area is divided into sections: 'Details', 'Description', 'Attachments', 'Activity', 'People', 'Dates', and 'Agile'. The 'Details' section lists fields such as Type (New Project), Priority (Major), Status (CLOSED), Resolution (Fixed), Labels (None), Group Id (io.github.together), Project URL, SCM url, Username(s) (marco.schulz), and Already Synced to Central (No). The 'Description' section contains the text: 'I'd like to publish the the released artifacts of Version 1.0 of TP-Core on a public repository. And also all future Releases. regards .marco'. The 'People' section shows the Assignee (Joel Orlina), Reporter (Marco Schulz), 0 votes, and 4 watchers with a 'Stop watching this issue' button. The 'Dates' section shows Created (03/31/18 05:25 AM), Updated (06/04/21 02:19 PM), and Resolved (04/04/18 08:41 PM). The 'Agile' section has a 'View on Board' link. A left sidebar contains navigation icons, and a bottom right corner has an 'Export' button.

sonatype Dashboards ▾ Projects ▾ Issues ▾ Boards ▾ Issue Templates ▾ Create 🔍 Search 🗣️ ? 👤

Community Support - Open Source Project Repository Hosting / OSSRH-38818

New Project TogetherPlatform

Edit Comment Agile Board More ▾ Export ▾

Details

Type:	+ New Project	Status:	CLOSED
Priority:	🚩 Major	Resolution:	Fixed
Labels:	None		
Group Id:	io.github.together		
Project URL:	https://github.com/ElmarDott/TP-CORE		
SCM url:	https://github.com/ElmarDott/TP-CORE.git		
Username(s):	marco.schulz		
Already Synced to Central:	No		

Description

I'd like to publish the the released artifacts of Version 1.0 of TP-Core on a public repository. And also all future Releases.
regards
.marco

Attachments ...

Activity

Comment

People

Assignee: Joel Orlina
Reporter: Marco Schulz
Votes: 0
Watchers: 4 [Stop watching this issue](#)

Dates

Created: 03/31/18 05:25 AM
Updated: 06/04/21 02:19 PM
Resolved: 04/04/18 08:41 PM

Agile

[View on Board](#)

PREPARE YOUR POM

```
<name>sample pom</name>
<description>Sample project pom fpr publisching on Maven Central.</description>
<inceptionYear>2021</inceptionYear>
<url>https://elmar-dott.com</url>

<groupId>io.github.myProject</groupId>
<artifactId>project</artifactId>
<version>1.0.0</version>
<packaging>jar</packaging>

<scm>
  <connection>scm:git:https://github.com/ElmarDott/TP-CM.git</connection>
  <developerConnection>scm:git:https://github.com/ElmarDott/TP-CM.git</developerConnection>
  <url>scm:git:https://github.com/ElmarDott/TP-CM.git</url>
</scm>
<developers>
  <developer>
    <name>Elmar Dott</name>
    <email>elmar.dott@gmail.com</email>
  </developer>
</developers>
<licenses>
  <license>
    <name>Apache License 2.0</name>
    <url>https://www.apache.org/licenses/LICENSE-2.0</url>
  </license>
</licenses>
```

SIGNING YOUR ARTIFACTS

```
ed@workstation: ~  
File Edit View Search Terminal Help  
ed@workstation:~$ gpg --version  
gpg (GnuPG) 2.2.19  
libgcrypt 1.8.5  
Copyright (C) 2019 Free Software Foundation, Inc.  
License GPLv3+: GNU GPL version 3 or later <https://gnu.org/licenses/gpl.html>  
This is free software: you are free to change and redistribute it.  
There is NO WARRANTY, to the extent permitted by law.  
  
Home: /home/ed/.gnupg  
Supported algorithms:  
Pubkey: RSA, ELG, DSA, ECDH, ECDSA, EDDSA  
Cipher: IDEA, 3DES, CAST5, BLOWFISH, AES, AES192, AES256, TWOFISH,  
CAMELLIA128, CAMELLIA192, CAMELLIA256  
Hash: SHA1, RIPEMD160, SHA256, SHA384, SHA512, SHA224  
Compression: Uncompressed, ZIP, ZLIB, BZIP2  
ed@workstation:~$ gpg --gen-key
```

OSS SONATYPE ARTIFACT UPLOAD

The screenshot shows the Sonatype Nexus Repository Manager interface for a Staging Upload. The top navigation bar includes the Sonatype logo, the text "nexus repository manager", and the user name "marco.schulz" with a dropdown arrow, and the version "Nexus Repository Manager 2.14.20-02".

The main content area is titled "Staging Upload" and contains the following sections:

- Select Staging Upload Mode:** A dropdown menu for "Upload Mode" with a help icon. Below it, three instructions are listed:
 - Artifact(s) with a POM:** GAV will be defined from a POM file.
 - Artifact(s) with GAV:** GAV needs to be manually defined.
 - Artifact Bundle:** A bundle file produced by [Maven Repository Plugin](#), which should contain the POM.
- Select Artifact(s) for Upload:** A section with a "Select Artifact(s) to Upload..." button, an "Add Artifact" button, and a table for "Artifacts". The table is currently empty. Below the table are "Remove" and "Remove All" buttons.
- Description:** A text input field with a star icon and a help icon.

The left sidebar contains navigation links for "Artifact Search", "Advanced Search", "Views/Repositories", "Central Statistics Repositories", "Build Promotion", "Staging Profiles", "Staging Repositories", "Staging Ruleset", "Staging Upload", and "Help".

REFERENZEN

[1] Marco Schulz, 2021, Continuous Integration mit Jenkins, Rheinwerk, ISBN: ISBN 978-3-8362-7834-8
<https://www.rheinwerk-verlag.de/continuous-integration-mit-jenkins/>

[2] <https://www.sonatype.com/products/repository-oss/>

[3] <https://search.maven.org>

[4] <https://issues.sonatype.org/login.jsp>

[5] <https://oss.sonatype.org>

[6] <https://central.sonatype.org/publish/requirements/gpg/>

[7] <https://central.sonatype.org/publish/publish-guide/>





Homepage : <https://elmar-dott.com>
GitHub : <https://github.com/ElmarDott>
AnchorFM : <https://anchor.fm/elmar-dott>
Twitter : <https://twitter.com/ElmarDott>
Speaker Deck : <https://speakerdeck.com/elmardott>

Lbry : <https://lbry.tv/@elmar.dott:8>
BitChute : <https://www.bitchute.com/channel/3IyCzKdX8Ip0/>



Danke / thank you / Gracias



BITCHUTE

