
PUBLISHING ANDROID LIBRARIES USING GRADLE

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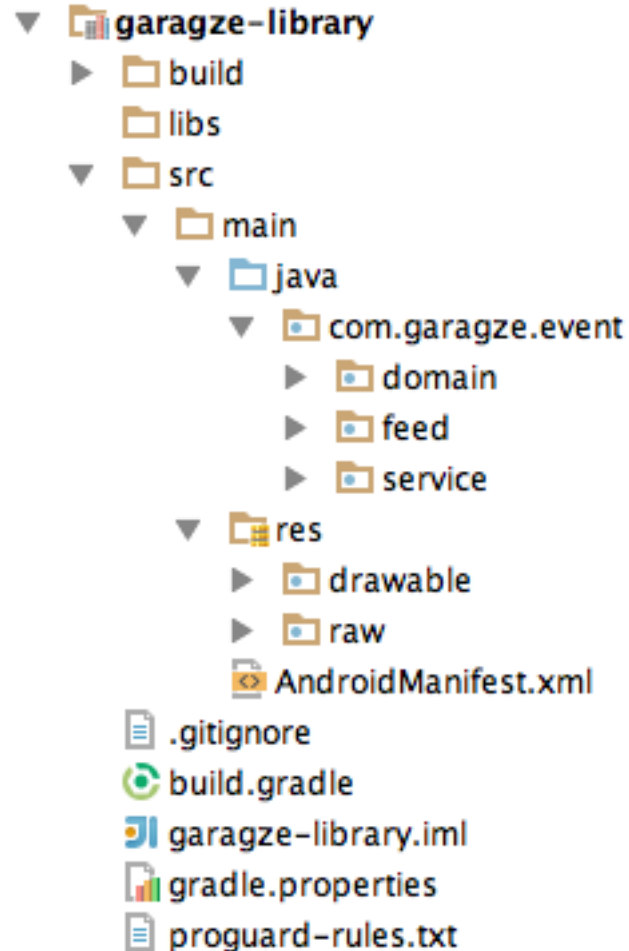
www.AndroidDevTools.com

www.ObjectTrainingGroup.com

Write The Library

- Decide minimum and target API levels
- Include javadoc
- Github page
- Unit Tests
- Good OO design
 - open for extension

Understanding the new aar format



Directory structure is same as for an Android application project.

Library can contain any of the Java classes or resources that are in an application module.

The generated AAR file is in the build directory

Signup for SonaType Account

- Use This Guide
 - <http://central.sonatype.org/pages/ossrh-guide.html>
- Create your JIRA account
 - <https://issues.sonatype.org/secure/Signup!default.jspa>
- Create a New Project ticket
 - <https://issues.sonatype.org/secure/CreateIssue.jspa?issuetype=21&pid=10134>
 - This triggers creation of your repositories. Normally, the process takes less than 2 business days. Why the wait?

New Project Ticket

Project **Community Support - Open Source Project Repository Hosting**

Issue Type **+ New Project**

Summary*

Description

Attachment No file chosen

The maximum file upload size is 1,024.00 MB.

Group Id*

~~The groupId of your artifacts, e.g. org.sonatype.oss. Need help choosing a groupId? Read <https://docs.sonatype.org/display/Repository/Choosing+your+Coordinates>~~

Project URL*

Location of the Project Website, e.g. <https://github.com/sonatype/nexus-oss>

SCM url*

Location of source control system, e.g. <https://github.com/sonatype/nexus-oss.git>

Email Response From Sonatype

[JIRA] (OSSRH-10584) Garagze Android Training App 



James Harmon (JIRA) <issues@sonatype.org>

to me 

James Harmon created OSSRH-10584:

Summary: Garagze Android Training App

Key: OSSRH-10584

URL: <https://issues.sonatype.org/browse/OSSRH-10584>

Project: Community Support - Open Source Project Repository Hosting

Issue Type: New Project

Reporter: James Harmon

Assignee: Joel Orlina

Artifacts for building the Garagze Android training app.

--

This message was sent by Atlassian JIRA
(v6.2.2#6258)

Followup Email From Sonatype

Devin Mayhew (JIRA) <issues@sonatype.org>

to me ▾

[<https://issues.sonatype.org/browse/OSSRH-10584?page=com.atlassian.jira.plugin.system.issuetabpanels>

Devin Mayhew resolved OSSRH-10584.

Resolution: Fixed

Configuration has been prepared, now you can:

- * Deploy snapshot artifacts into repository <https://oss.sonatype.org/content/repositories/snapshots>
- * Deploy release artifacts into the staging repository <https://oss.sonatype.org/service/local/staging/deploy/maven2>
- * Promote staged artifacts into repository 'Releases'
- * Download snapshot and release artifacts from group <https://oss.sonatype.org/content/groups/public>
- * Download snapshot, release and staged artifacts from staging group <https://oss.sonatype.org/content/groups/staging>

please comment on this ticket when you promoted your first release, thanks

Signing The Library

- Maven artifacts should be signed with PGP signature that can be validated against a public key server
- Acquire Tools For Signing
 - For OSX - GPGTools (<http://www.gpgtools.org/>)
 - For Windows – GPG 4 Win (<http://www.gpg4win.org/>)
- Instructions for Signing
 - <http://blog.sonatype.com/2010/01/how-to-generate-pgp-signatures-with-maven>

Create and Publish Key

- Create PGP Key
 - `$ gpg --gen-key`
- Next, find your key ID:
 - `$ gpg --list-keys`
 - Key will look like: XXXXX/YYYYYYYYYY <date>
 - 'YYYYYYYYYY' is the key ID
- Publish your keys to a key server
 - `$ gpg --keyserver hkp://keyserver.ubuntu.com --send-keys YYYYYYYYYY`
 - `$ gpg --keyserver hkp://pgp.mit.edu --send-keys YYYYYYYYYY`
- Verify key
 - `$ gpg --keyserver hkp://pgp.mit.edu --search-keys <your email>`

Sign The Library

- Now that you've got your key you can sign the library
- This will be done using Gradle

Configure Gradle

maven-push.gradle

```
apply plugin: 'maven'
```

```
apply plugin: 'signing'
```

```
def sonatypeRepositoryUrl
```

```
def isReleaseBuild() {  
    return true  
}
```

```
if (isReleaseBuild()) {  
    println 'RELEASE BUILD'  
    sonatypeRepositoryUrl = hasProperty('RELEASE_REPOSITORY_URL') ?  
RELEASE_REPOSITORY_URL  
        : "https://oss.sonatype.org/service/local/staging/deploy/maven2/"  
} else {  
    println 'SNAPSHOT BUILD'  
    sonatypeRepositoryUrl = hasProperty('SNAPSHOT_REPOSITORY_URL') ?  
SNAPSHOT_REPOSITORY_URL  
        : "https://oss.sonatype.org/content/repositories/snapshots/"
```

Configure Gradle

maven-push.gradle (continued)

```
afterEvaluate { project ->
    uploadArchives {
        repositories {
            mavenDeployer {
                beforeDeployment { MavenDeployment deployment -> signing.signPom(deployment) }

                pom.artifactId = POM_ARTIFACT_ID

                repository(url: sonatypeRepositoryUrl) {
                    authentication(userName: getRepositoryUsername(), password: getRepositoryPassword())
                }

                pom.project {
                    name POM_NAME
                    groupId POM_GROUP_ID
                    version POM_VERSION
                    packaging POM_PACKAGING
                    description POM_DESCRIPTION
                    url POM_URL
                }
            }
        }
    }
}
```

Configure Gradle

maven-push.gradle (continued)

```
scm {
    url POM_SCM_URL
    connection POM_SCM_CONNECTION
    developerConnection POM_SCM_DEV_CONNECTION
}

licenses {
    license {
        name POM_LICENCE_NAME
        url POM_LICENCE_URL
        distribution POM_LICENCE_DIST
    }
}

developers {
    developer {
        id POM_DEVELOPER_ID
        name POM_DEVELOPER_NAME
    }
}
```

Configure Gradle

maven-push.gradle (continued)

```
task androidJavadocs(type: Javadoc) {  
    source = android.sourceSets.main.java.srcDirs  
    classpath += project.files(android.getBootClasspath().join(File.pathSeparator))  
}
```

```
task androidJavadocsJar(type: Jar, dependsOn: androidJavadocs) {  
    classifier = 'javadoc' from androidJavadocs.destinationDir  
}
```

```
task androidSourcesJar(type: Jar) {  
    classifier = 'sources' from android.sourceSets.main.java.srcDirs  
}
```

```
artifacts {  
    archives androidSourcesJar  
    archives androidJavadocsJar  
}
```

Library build.gradle

apply from: "../maven_push.gradle"

Library gradle.properties

POM_NAME=Garagze Event Library
POM_GROUP_ID=com.garagze
POM_ARTIFACT_ID=garagze-event-library
POM_VERSION=1.2
POM_PACKAGING=aar

VERSION_NAME=1.2
VERSION_CODE=1.2
GROUP=com.garagze
POM_DESCRIPTION=Garagze Event Library
POM_URL=https://github.com/androiddevtools/garagze-event-library
POM_SCM_URL=https://github.com/androiddevtools/garagze-event-library
POM_SCM_CONNECTION=scm:git@github.com:androiddevtools/garagze-event-library.git
POM_SCM_DEV_CONNECTION=scm:git@github.com:androiddevtools/garagze-event-library.git
POM_LICENCE_NAME=The Apache Software License, Version 2.0
POM_LICENCE_URL=http://www.apache.org/licenses/LICENSE-2.0.txt
POM_LICENCE_DIST=repo
POM_DEVELOPER_ID=androidguy
POM_DEVELOPER_NAME=James Harmon

Project gradle.properties

signing.keyId=***

signing.password=***

signing.secretKeyRingFile=secring.gpg

sonatypeUsername=***

sonatypePassword=***

sonatypeRepo=https://oss.sonatype.org/service/local/staging/deploy/maven2/

sonatypeSnapshotRepo=https://oss.sonatype.org/content/repositories/snapshots/

Post Library to Sonatype

- Run the gradle command

```
gradlew :garagze-library:uploadArchives
```

Sonatype OSS

Sonatype™

Nexus

Artifact Search

[Advanced Search](#)

Views/Repositories

[Central Statistics](#)
[Repositories](#)

Build Promotion

[Staging Profiles](#)
[Staging Repositories](#)
[Staging Ruleset](#)
[Staging Upload](#)



Help


Welcome

Staging Profiles

Staging Repositories

 Refresh  Close  Promote  Release  Drop

| <input type="checkbox"/> | Repository ▲ | Profile | Status | Updated | Descripti |
|-------------------------------------|--|-----------------|--------|----------------------|------------|
| <input type="checkbox"/> |  central_bundles-2869 | Central Bundles | open | 2014-Oct-18 13:00:30 | Implicitly |
| <input checked="" type="checkbox"/> |  comgaragze-1001 | com.garagze | open | 2014-Nov-18 23:31:26 | Implicitly |

 comgaragze-1001

Summary

Activity

Content

Repository comgaragze-1001 (com.garagze)
Created Tuesday, November 18, 2014 23:30:12 PST (GMT-0800)
Updated Tuesday, November 18, 2014 23:31:26 PST (GMT-0800)
Activity  Last operation completed successfully
Owner androidguy (38.126.120.10)

Post To Maven Central

- Stage Instructions
 - <http://central.sonatype.org/pages/releasing-the-deployment.html>
- Stage
- Verify
 - <https://oss.sonatype.org/#nexus-search;quick~garagze>

Using The Library

```
dependencies {  
    compile 'com.garagze:garagze-event-library:1.0'  
}
```

Upgrading Your Library

- Change the code
- Change the version
- Wash / Rinse / Repeat
 - Publish
 - Promote
 - Use

Publishing to JCenter

- For the future
- Android now stores artifacts at Jcenter
- <https://bintray.com/bintray/jcenter>

Publishing to Local Repository

- Enterprise maven repo allows sharing within the enterprise but not outside of the enterprise

Links and Contact Info

Links:

<http://zserge.com/blog/gradle-maven-publish.html>

<http://www.survivingwithandroid.com/2014/05/android-guide-to-publish-aar-to-maven-gradle.html>

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