

# [Translating] Support app center test on test platform


- GOAL :
- Background :
- Open question :
- Test-executor difference between app center and test platform
- make plan for app center 时序图
- 需要调整的地方 :
  - make plan 之前的条件选择
    - test-site 需要做出的调整:
    - test-device-service 需要做出的调整:
  - make plan 时候异步去创建test run
    - test-case-service 需要做出的调整:
  - make plan 之后的测试运行
    - test-executor 需要做出的调整

Version	ChangeLog	Date
1.0.0	1. 新增补充说明，用maven构建executor项目，新增父级别和子项目级别pom.xml的配置	2023.10.07
1.0.0	design :  1. 更新：app center 和 test platform 运行test-executor的区别  2. 更新API定义：pull all executor_case by test_platform & device_model	2023.09.28

## GOAL :

1. Create a app center test plan on test-site and then start a test runner on app center. (  [Starting a test run - Visual Studio App Center](#) )

## Background :

1. App center test is available only on UAT
2. Test cases type: upgradeand regular test case
3. Executor is build by maven
4. Run test on app center :  [Starting a test run - Visual Studio App Center](#)

## Open question :

1. 代码中怎么知道要测试的app的是哪个
  - a. app center 直接把app安装到设备中，脚本上通过bundleId定位&操作app
2. 代码中怎么知道要用什么device进行测试？
  - a. app center 分配的，直接从系统环境变量中可以取得到设备信息。
3. 如果在测试期间有新发布的app，是否需要使用最新的app进行安装和测试剩下的case？
  - a. platform & app center 忽略app的更新，不需要重测
4. 如果在测试期间测试脚本发生变更，是否需要停止app center测试，并对剩下的case发起新的app center测试。

- a. platform & app center 忽略executor的更新，不需要重测
- 5. 最终报告的生成？
  - a. 改成人工或job去触发最终测试（现人工控制）
- 6. 是否需要记录到使用的app是哪个版本下的哪个修订号的包
  - a. 是

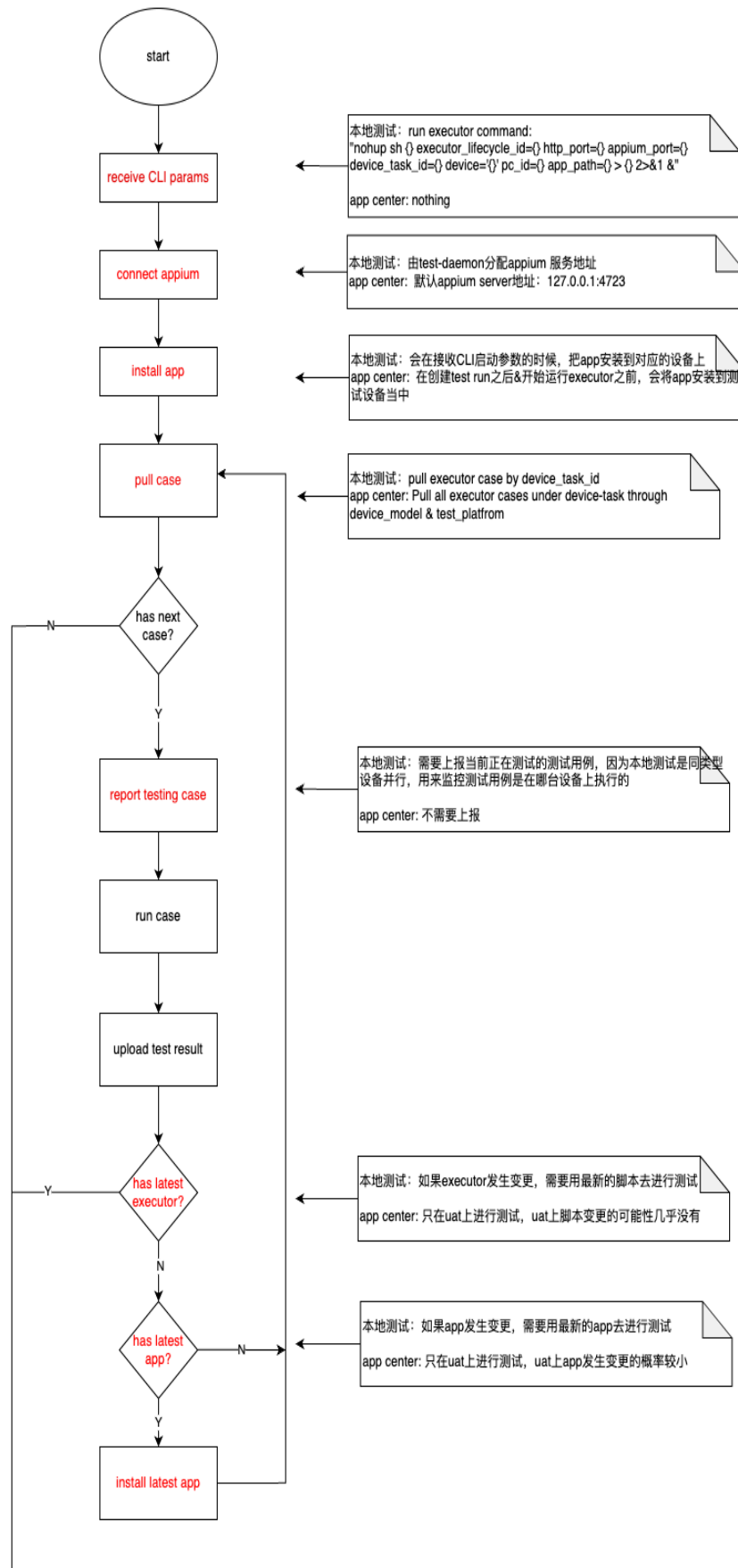
## Test-executor difference between app center and test platform

### 区别：

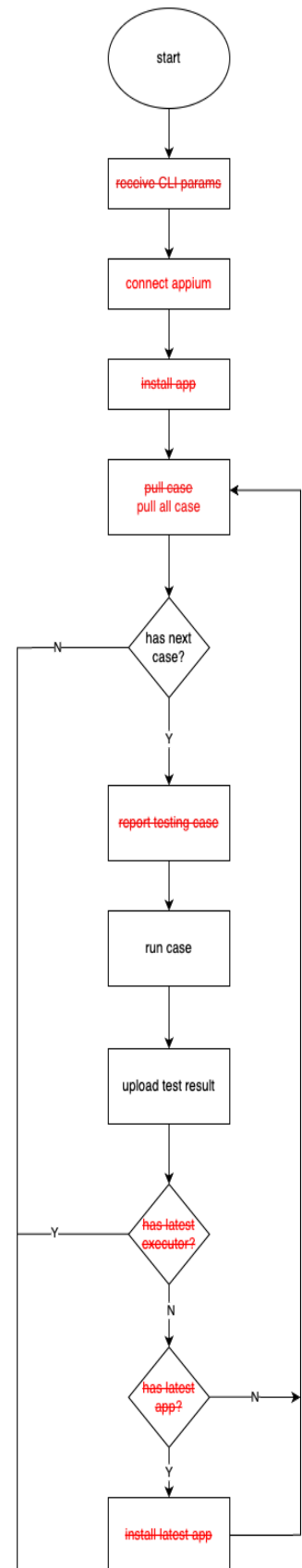
1. 操作executor的对象不一致：
  - a. 本地测试：由本地安装的test-daemon服务操作，test-executor需要接收test-daemon传递的CLI参数知道要执行的测试任务。
  - b. app center：由app center测试平台操作，运行起来后 通过调用 **find device task** API知道要执行的测试任务。
2. 获取测试用例的方式不一致：
  - a. 本地测试：通过轮询调用pull case API `ExecutorCaseAJAXWebService.nextForTest()` 去获取需要执行的测试用例
  - b. app center：通过device\_model&test\_platform类型去获取device\_task，包含需要运行的所有测试用例 和 app 的安装路径（升级测试的时候需要）
3. 获取app安装路径的方式不一致：
  - a. 本地测试：run executor的时候提供 和 通过调用test-daemon的 `AppPackageWebService.getLatestPath()` API完成
  - b. app center：是通过调用test-api的 **find device task** API完成。
4. 安装app的方式不一致：
  - a. 本地测试：由executor代码执行的安装。
  - b. app center：由app center 安装到设备中。
5. 获取设备的方式不一致：
  - a. 本地测试：通过解析CLI参数获取，由test-daemon传递给test-executor
  - b. app center: 通过读取app center服务器的系统环境变量所得
6. 结束executor生命周期的方式不一致：
  - a. 本地测试：由executor调用test-daemon上的kill executor API 结束生命周期
  - b. app center：需要在任务执行结束后，executor需要主动退出程序。
7. 连接appium server的地址不一致：
  - a. 本地测试：127.0.0.1:xxxx，端口由test-daemon分配
  - b. app center: 127.0.0.1:4723，固定

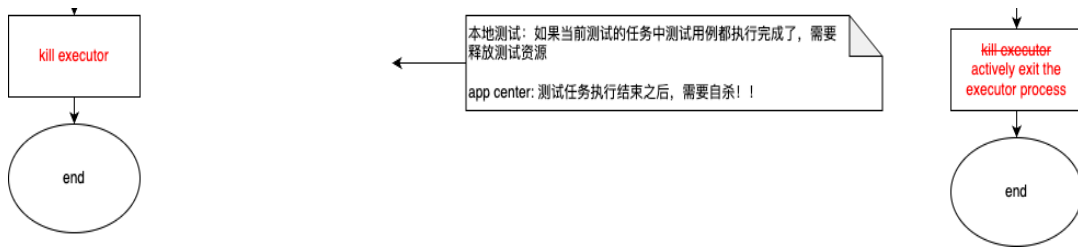
### 区别流程图：

在本地测试平台上executor的运行流程  
红色字体表示：app center运行测试时候的不同点



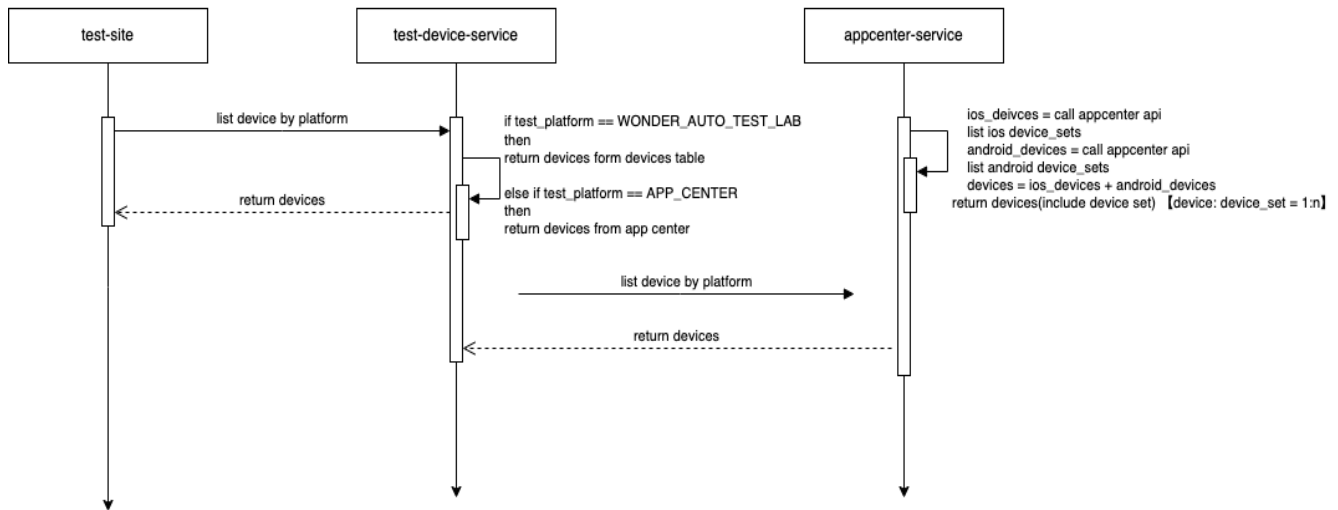
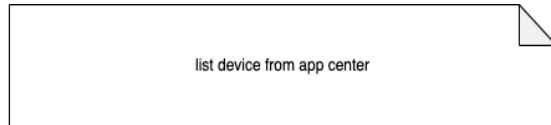
在app center上executor的运行流程





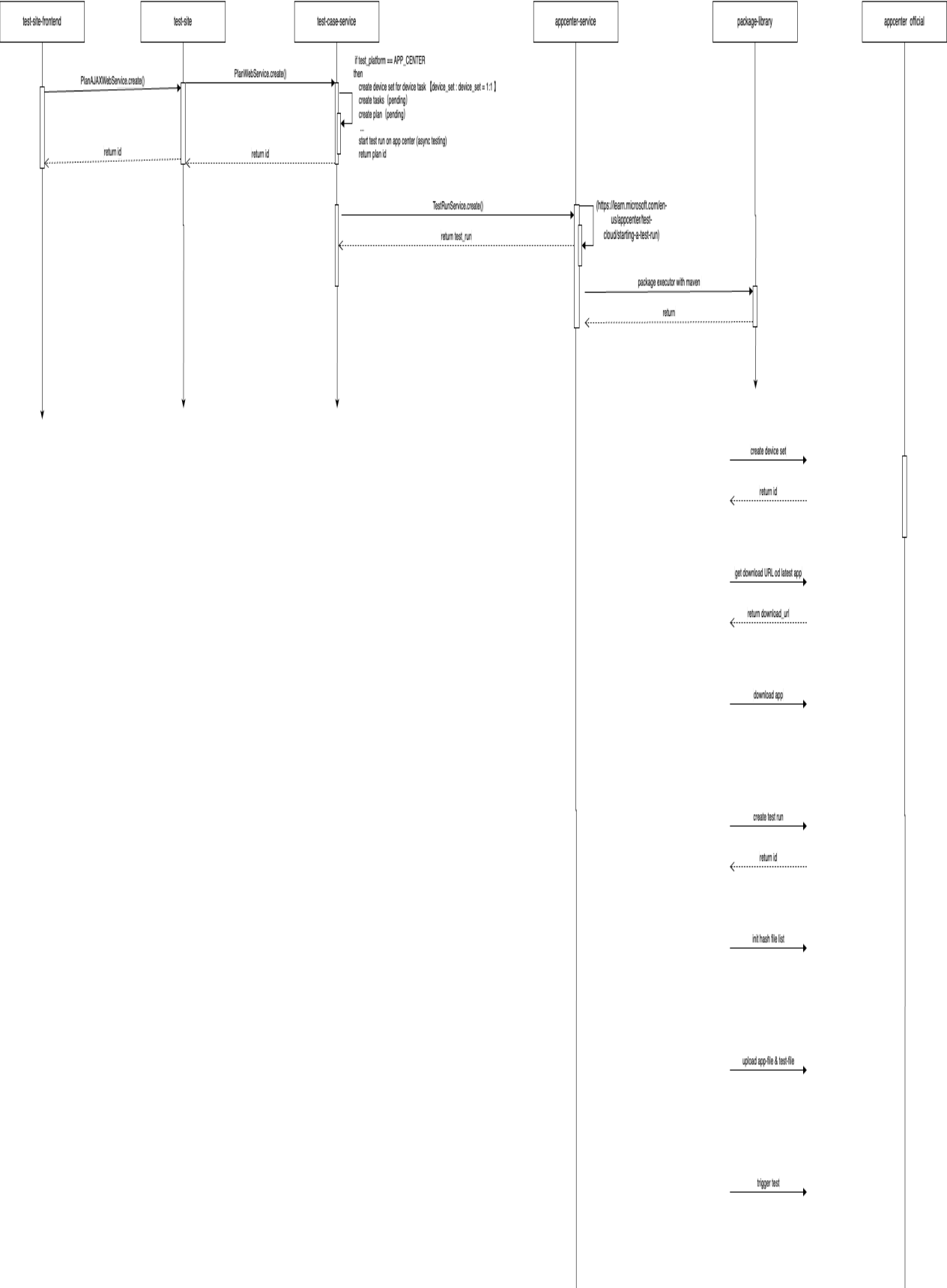
## make plan for app center 时序图

- list device by platform: call REST API of app center



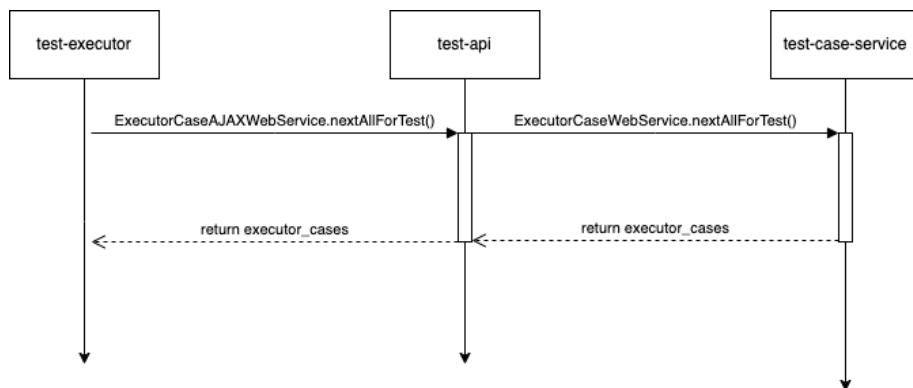
- make plan :

make plan for app center



validate test state

### 3. pull task



需要调整的地方：

### make plan 之前的条件选择

#### test-site 需要做出的调整:

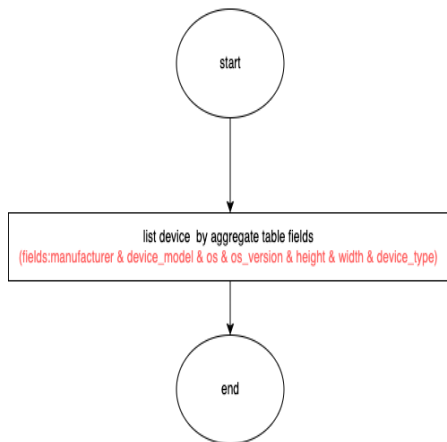
1. 只在UAT提供make plan for app center的操作
2. list device: 所有稳定设备集中的所有设备，不显示临时创建的设备集
3. 界面Search 的时候可以根据 设备集 进行查找，例如：ios-first

#### test-device-service 需要做出的调整:

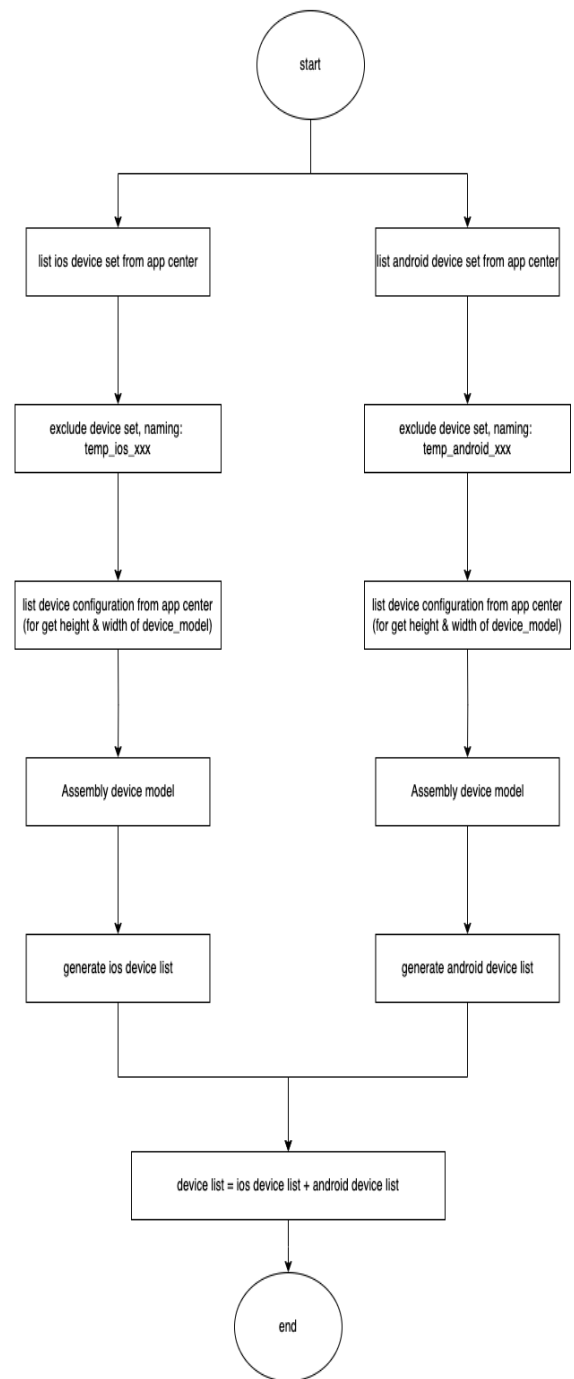
1. modify API for list device: 按平台类型获取设备
  - a. 流程：

1. 因为设备集 不包含设备的分辨率等信息，需要通过获取设备详细信息的API去获取
2. 设备集之间的设备可能存在重合，所以会合并不同设备集之间的设备

list device for WONDER\_AUTO\_TEST\_LAB



list device for APP\_CENTER



b. api :

- 获取设备集 : `get {{app-center}}/v0.1/apps/:owner_name/:app_name/owner/device_sets`
- 创建设备集 : `post {{app-center}}/v0.1/apps/:owner_name/:app_name/owner/device_sets`
- 删除设备集 : `delete {{app-center}}/v0.1/apps/:owner_name/:app_name/owner/device_sets/:id`
- 获取设备详细信息 : `get {{app-center}}/v0.1/apps/:owner_name/:app_name/device_configurations`

## make plan 时候异步去创建test run

### test-case-service 需要做出的调整:

#### 原make plan的需求背景：

1. 只允许最新版本的executor执行升级测试的用例
2. 对于升级测试来讲，device\_task的数量统计如下：
  - a. 只包含非升级测试的情况下：device\_task数量 = device数量
  - b. 只包含升级测试的情况下：device\_task数量= old\_app\_version数量\*设备数量
  - c. 同时含有升级和非升级的情况：device\_task数量= old\_app\_version数量\*设备数量 + device数量

#### 增加make plan for app center后：

1. 文档：[Starting a test run - Visual Studio App Center](#)
2. make plan API，根据选中的设备进行创建新的设备集
3. 下载appcenter app
4. 把executor打成JAR包
5. 通过调用REST API创建test run在appcenter上进行测试。
6. 如果测试结束: plan.status==done or cancel，则删除device set
7. 在服务器maven的setting.xml中配置repo的密钥：（在dockerfile里面配置maven，自定义 Maven 设置，可以将 settings.xml 文件复制到容器中的指定位置）

```
1  <servers>
2    <server>
3      <id>maven-ct</id>
4      <username>foodtruckinc</username>
5      <password>${env.AZURE_PACKAGES_ACCESSTOKEN}</password>
6    </server>
7  </servers>
```

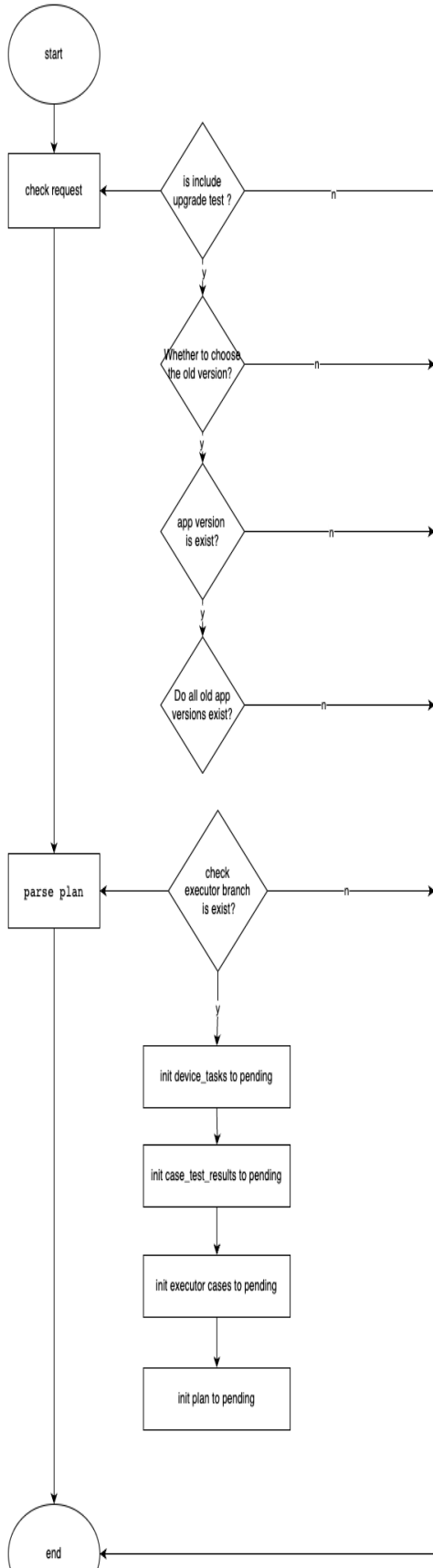
dockerfile （setings.xml 放在项目的docker目录下）

```
1  ...
2  RUN      apk update && apk add unzip
3  RUN      wget https://dlcdn.apache.org/maven/maven-3/3.9.4/binaries/apache-maven-3.9.4-bin.zip && unzip apache-maven-3.9.4-bin.zip
4  ENV      MAVEN_HOME /apache-maven-3.9.4
5  ENV      PATH $MAVEN_HOME/bin:$PATH
6  COPY     settings.xml $MAVEN_HOME/conf/
7  ....
```

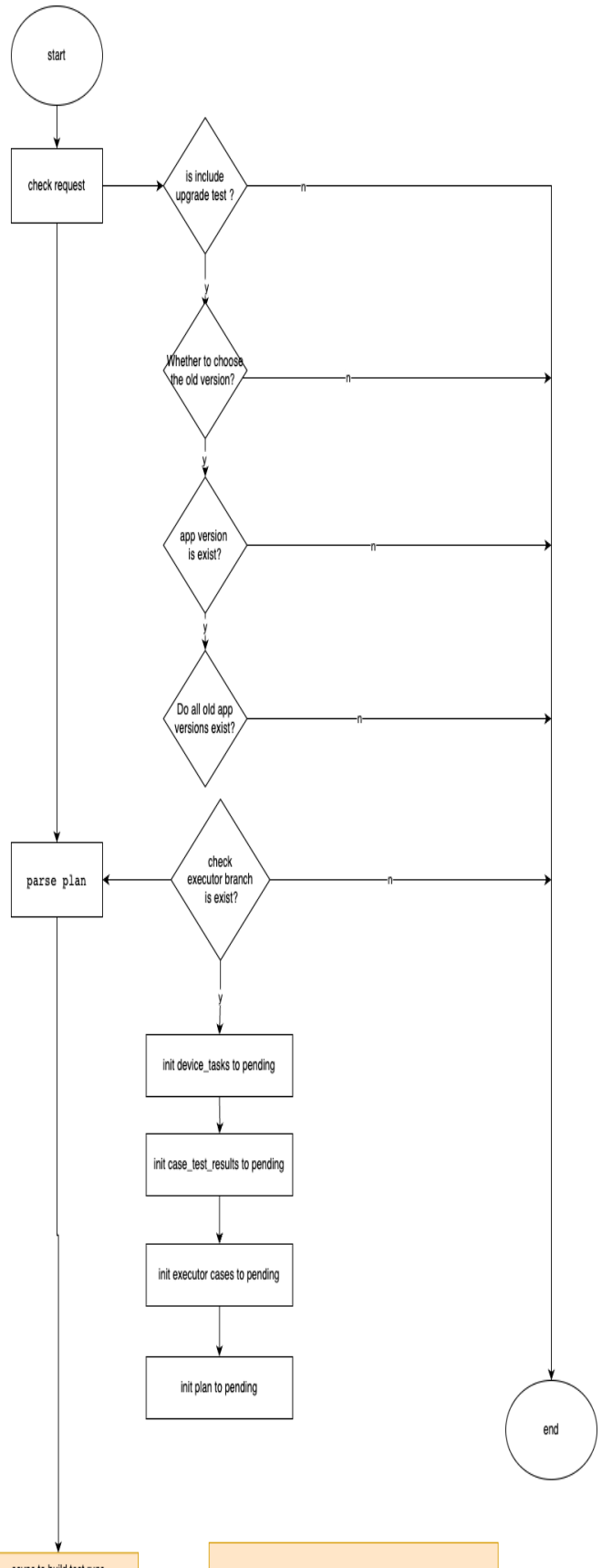
#### make plan 流程

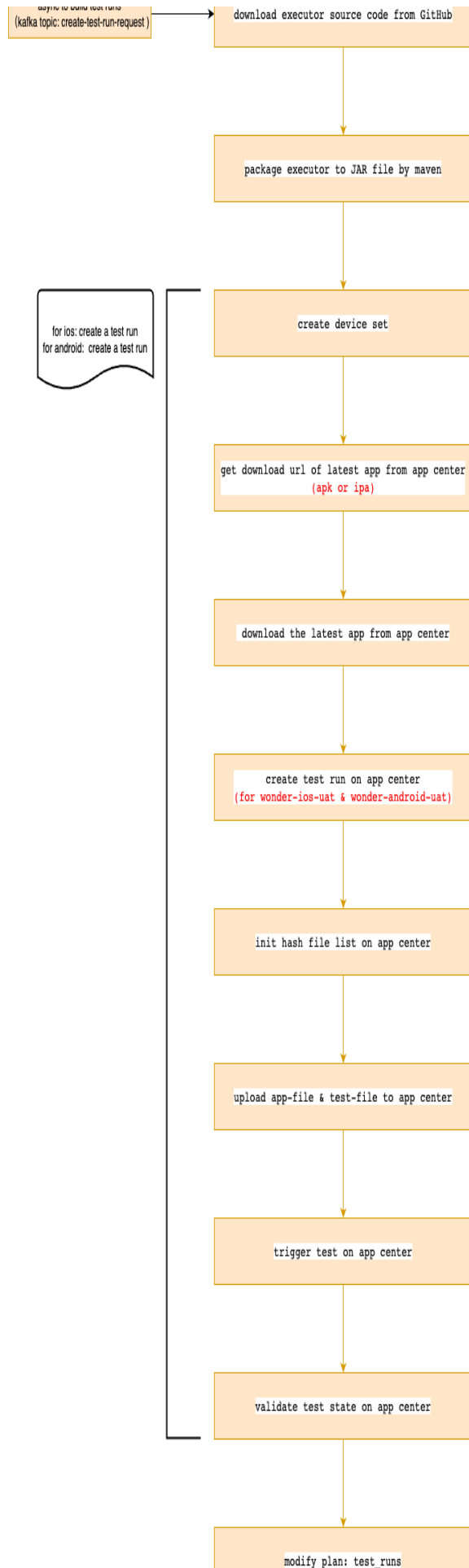


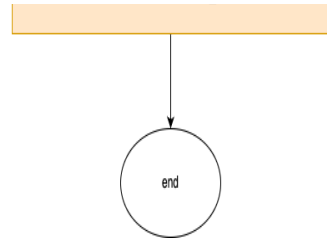
make plan for WONDER\_AUTO\_TEST\_LAB



make plan for APP\_CENTER  
ps: yellow->difference red->remove







## pull task 流程

从executor\_cases表获取最早创建的task的所有测试用例

## make plan 之后的测试运行

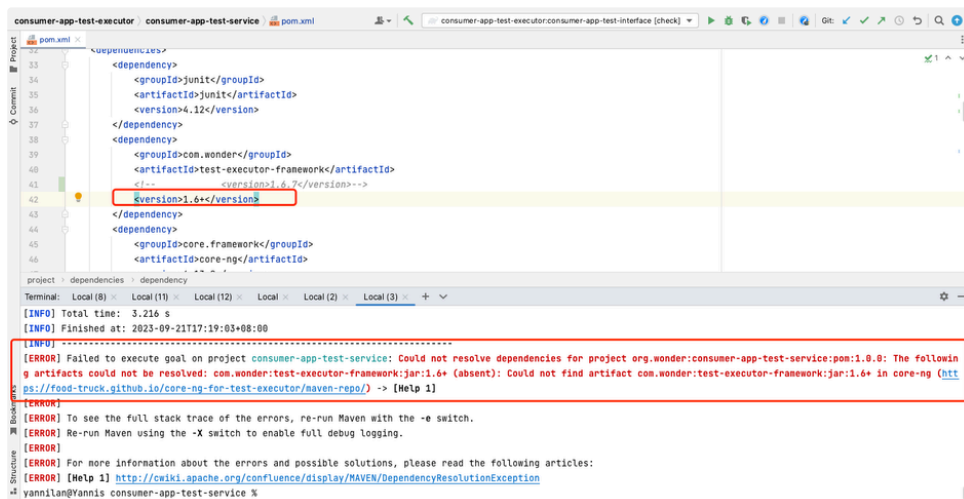
### test-executor 需要做出的调整

- main 入口：
  - 如果是app center的测试
  - Call API: 根据平台类型&device\_model去获取device task (case & app)
  - 不用在属性文件中做app下载地址的配置
- case测试过程中不需要替换最新的app跟 executor 的版本 (同版本不同修订号)
- maven配置要求：
  - 只保留一个pom.xml文件
  - pom文件中配置的测试启动类入口与平台测试的Main入口一致
  - 在pom文件中配置远程repo的配置：

```
1 <repository>
2   <id>maven-ct</id>
3   <name>maven-ct</name>
4   <url>https://pkgs.dev.azure.com/foodtruckinc/Wonder/_packaging/maven-local/maven/v1</url>
5 </repository>
```

d. profileid 由: prepare-for-upload 改成 uat ,打包的时候指定配置环境  Preparing Appium Tests for Upload - Visual Studio App Center

e. 依赖版本的使用方式,由版本+改成具体的版本,数字+的方式maven无法打包,如下:



4. app center : 需要在任务执行结束后, executor需要主动退出程序。

## 5. 构建maven管理的executor项目

```
1 项目结构
2 consumer-app-test-executor
3   - pom.xml
4   - consumer-app-test-interface
5   -- pom.xml
6   - consumer-app-test-service
7   -- pom.xml
8
```

父级别pom.xml配置：consumer-app-test-executor/pom.xml

```
1 <?xml version="1.0" encoding="UTF-8"?>
2 <project xsi:schemaLocation="http://maven.apache.org/POM/4.0.0 https://maven.apache.org/xsd/maven-4.0.0.xsd"
3     xmlns="http://maven.apache.org/POM/4.0.0"
4     xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
5     <modelVersion>4.0.0</modelVersion>
6
7     <groupId>com.wonder</groupId>
8     <artifactId>consumer-app-test-executor</artifactId>
9     <packaging>pom</packaging>
10    <version>1.0.0</version>
11    <properties>
12        <consumer-app-test-interface.version>1.0.0</consumer-app-test-interface.version>
13        <consumer-app-test-service.version>1.0.0</consumer-app-test-service.version>
14        <java.version>11</java.version>
15    </properties>
16    <modules>
17        <module>consumer-app-test-interface</module>
18        <module>consumer-app-test-service</module>
19    </modules>
20    <repositories>
21        <repository>
22            <id>maven-ct</id>
23            <name>maven-ct</name>
24            <url>https://pkgs.dev.azure.com/foodtruckinc/Wonder/_packaging/maven-local/maven/v1</url>
25        </repository>
26        <repository>
27            <id>core-ng</id>
28            <name>core-ng-repo</name>
29            <url>https://food-truck.github.io/core-ng-for-test-executor/maven-repo</url>
30        </repository>
31        <repository>
32            <id>maven-local</id>
33            <name>maven-local</name>
34            <url>file:${user.home}/.m2/repository</url>
35        </repository>
36    </repositories>
37
38    <build>
39        <plugins>
40            <plugin>
41                <groupId>org.apache.maven.plugins</groupId>
42                <artifactId>maven-compiler-plugin</artifactId>
43                <version>3.2</version>
44                <configuration>
45                    <source>${java.version}</source>
46                    <target>${java.version}</target>
```

```

47         <encoding>UTF-8</encoding>
48     </configuration>
49 </plugin>
50 <plugin>
51     <groupId>org.apache.maven.plugins</groupId>
52     <artifactId>maven-source-plugin</artifactId>
53     <version>2.4</version>
54     <configuration>
55         <attach>true</attach>
56     </configuration>
57     <executions>
58         <execution>
59             <id>attach-sources</id>
60             <phase>verify</phase>
61             <goals>
62                 <goal>jar-no-fork</goal>
63             </goals>
64         </execution>
65     </executions>
66 </plugin>
67 <plugin>
68     <groupId>org.apache.maven.plugins</groupId>
69     <artifactId>maven-surefire-plugin</artifactId>
70     <version>2.5</version>
71     <configuration>
72         <skip>true</skip>
73     </configuration>
74 </plugin>
75 <plugin>
76     <groupId>org.apache.maven.plugins</groupId>
77     <artifactId>maven-jar-plugin</artifactId>
78     <version>3.3.0</version>
79     <executions>
80         <execution>
81             <id>default-jar</id>
82             <phase>package</phase>
83             <goals>
84                 <goal>jar</goal>
85             </goals>
86         </execution>
87     </executions>
88 </plugin>
89 </plugins>
90 </build>
91 </project>

```

子项目级别pom.xml配置：consumer-app-test-executor/consumer-app-test-interface/pom.xml

```

1 <?xml version="1.0" encoding="UTF-8"?>
2 <project xsi:schemaLocation="http://maven.apache.org/POM/4.0.0 http://maven.apache.org/xsd/maven-4.0.0.xsd"
3     xmlns="http://maven.apache.org/POM/4.0.0"
4     xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
5     <modelVersion>4.0.0</modelVersion>
6     <artifactId>consumer-app-test-interface</artifactId>
7     <packaging>jar</packaging>
8     <version>1.0.0</version>
9     <parent>
10         <artifactId>consumer-app-test-executor</artifactId>
11         <groupId>com.wonder</groupId>

```

```

12     <version>1.0.0</version>
13     <relativePath>../pom.xml</relativePath>
14 </parent>
15 <dependencies>
16     <dependency>
17         <groupId>core.framework</groupId>
18         <artifactId>core-ng-api</artifactId>
19         <version>6.13.9</version>
20     </dependency>
21     <dependency>
22         <groupId>junit</groupId>
23         <artifactId>junit</artifactId>
24         <version>4.12</version>
25     </dependency>
26     <dependency>
27         <groupId>com.wonder</groupId>
28         <artifactId>test-executor-framework</artifactId>
29         <version>1.6.7</version>
30     </dependency>
31 </dependencies>
32 </project>

```

子项目级别pom.xml配置： consumer-app-test-executor/consumer-app-test-service/pom.xml

```

1  <?xml version="1.0" encoding="UTF-8"?>
2  <project xsi:schemaLocation="http://maven.apache.org/POM/4.0.0 http://maven.apache.org/xsd/maven-4.0.0.xsd"
3      xmlns="http://maven.apache.org/POM/4.0.0"
4      xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
5      <modelVersion>4.0.0</modelVersion>
6      <groupId>org.wonder</groupId>
7      <artifactId>consumer-app-test-service</artifactId>
8      <packaging>jar</packaging>
9      <version>1.0.0</version>
10
11      <parent>
12          <artifactId>consumer-app-test-executor</artifactId>
13          <groupId>com.wonder</groupId>
14          <version>1.0.0</version>
15          <relativePath>../pom.xml</relativePath>
16      </parent>
17
18      <dependencies>
19          <dependency>
20              <groupId>com.wonder</groupId>
21              <artifactId>consumer-app-test-interface</artifactId>
22              <version>${consumer-app-test-interface.version}</version>
23          </dependency>
24          <dependency>
25              <groupId>junit</groupId>
26              <artifactId>junit</artifactId>
27              <version>4.12</version>
28          </dependency>
29          <dependency>
30              <groupId>com.wonder</groupId>
31              <artifactId>test-executor-framework</artifactId>
32              <version>1.6.7</version>
33          </dependency>
34          <dependency>
35              <groupId>core.framework</groupId>

```

```

36         <artifactId>core-ng</artifactId>
37         <version>6.13.9</version>
38     </dependency>
39     <dependency>
40         <groupId>org.aspectj</groupId>
41         <artifactId>aspectjrt</artifactId>
42         <version>1.9.7</version>
43     </dependency>
44     <dependency>
45         <groupId>io.qameta.allure</groupId>
46         <artifactId>allure-junit4</artifactId>
47         <version>2.21.0</version>
48     </dependency>
49     <dependency>
50         <groupId>com.github.spotbugs</groupId>
51         <artifactId>spotbugs</artifactId>
52         <version>4.3.0</version>
53     </dependency>
54     <dependency>
55         <groupId>com.fasterxml.jackson.core</groupId>
56         <artifactId>jackson-databind</artifactId>
57         <version>2.14.2</version>
58     </dependency>
59 </dependencies>
60
61 <profiles>
62     <profile>
63         <id>uat</id>
64         <build>
65             <plugins>
66                 <!--copy dependencies to upload/dependency-jars-->
67                 <plugin>
68                     <groupId>org.apache.maven.plugins</groupId>
69                     <artifactId>maven-dependency-plugin</artifactId>
70                     <version>2.10</version>
71                     <executions>
72                         <execution>
73                             <id>copy-dependencies</id>
74                             <phase>package</phase>
75                             <goals>
76                                 <goal>copy-dependencies</goal>
77                             </goals>
78                             <configuration>
79                                 <outputDirectory>${project.build.directory}/upload/dependency-jars/
80                                 </outputDirectory>
81                                 <useRepositoryLayout>true</useRepositoryLayout>
82                                 <copyPom>true</copyPom>
83                                 <addParentPoms>true</addParentPoms>
84                             </configuration>
85                         </execution>
86                     </executions>
87                 </plugin>
88                 <plugin>
89                     <groupId>org.apache.maven.plugins</groupId>
90                     <artifactId>maven-help-plugin</artifactId>
91                     <version>2.2</version>
92                     <executions>
93                         <execution>

```

```

94         <id>generate-pom</id>
95         <phase>package</phase>
96         <goals>
97             <goal>effective-pom</goal>
98         </goals>
99         <configuration>
100             <output>${project.build.directory}/upload/pom.xml</output>
101         </configuration>
102     </execution>
103 </executions>
104 </plugin>
105 <plugin>
106     <groupId>org.apache.maven.plugins</groupId>
107     <artifactId>maven-resources-plugin</artifactId>
108     <version>3.3.1</version>
109     <executions>
110         <execution>
111             <id>default-resources</id>
112             <phase>process-resources</phase>
113             <goals>
114                 <goal>resources</goal>
115             </goals>
116             <configuration>
117                 <resources>
118                     <resource>
119                         <directory>
120                             ${project.basedir}/conf/uat/resources
121                         </directory>
122                     </resource>
123                 </resources>
124             </configuration>
125         </execution>
126         <execution>
127             <id>default-testResources</id>
128             <phase>process-test-resources</phase>
129             <goals>
130                 <goal>testResources</goal>
131             </goals>
132         </execution>
133         <execution>
134             <id>copy-classes</id>
135             <phase>package</phase>
136             <goals>
137                 <goal>resources</goal>
138             </goals>
139             <configuration>
140                 <outputDirectory>${project.build.directory}/upload/test-classes</outputDire
141             <resources>
142                 <resource>
143                     <directory>
144                         ${project.build.outputDirectory}
145                     </directory>
146                 </resource>
147             </resources>
148             </configuration>
149         </execution>
150         <execution>
151             <id>copy-testclasses</id>

```



```

152             <phase>package</phase>
153             <goals>
154                 <goal>testResources</goal>
155             </goals>
156             <configuration>
157                 <outputDirectory>${project.build.directory}/upload/test-classes</outputDire
158             <resources>
159                 <resource>
160                     <directory>
161                         ${project.build.testOutputDirectory}
162                     </directory>
163                 </resource>
164             </resources>
165             </configuration>
166         </execution>
167     </executions>
168 </plugin>
169 </plugins>
170 </build>
171 </profile>
172 </profiles>
173
174 <build>
175     <plugins>
176         <plugin>
177             <groupId>org.codehaus.mojo</groupId>
178             <artifactId>aspectj-maven-plugin</artifactId>
179             <version>1.14.0</version>
180             <configuration>
181                 <complianceLevel>${java.version}</complianceLevel>
182                 <source>${java.version}</source>
183                 <target>${java.version}</target>
184                 <showWeaveInfo>true</showWeaveInfo>
185                 <verbose>true</verbose>
186                 <Xlint>ignore</Xlint>
187                 <encoding>UTF-8</encoding>
188                 <forceAjcCompile>true</forceAjcCompile>
189             </configuration>
190             <executions>
191                 <execution>
192                     <id>compile</id>
193                     <goals>
194                         <goal>compile</goal>
195                     </goals>
196                 </execution>
197                 <execution>
198                     <id>test-compile</id>
199                     <goals>
200                         <goal>test-compile</goal>
201                     </goals>
202                 </execution>
203             </executions>
204         </plugin>
205         <plugin>
206             <groupId>org.apache.maven.plugins</groupId>
207             <artifactId>maven-surefire-plugin</artifactId>
208             <version>2.20</version>
209             <executions>

```

```
210         <execution>
211             <id>default-test</id>
212             <phase>test</phase>
213             <goals>
214                 <goal>test</goal>
215             </goals>
216         </execution>
217     </executions>
218     <configuration>
219         <testFailureIgnore>true</testFailureIgnore>
220         <excludes>
221             <exclude>**/*Test.java</exclude>
222             <exclude>**/Test*.java</exclude>
223         </excludes>
224         <includes>
225             <include>**/AppCenterExecutor.java</include>
226         </includes>
227     </configuration>
228 </plugin>
229 </plugins>
230 </build>
231 </project>
```