

Gradle- the basics

Gradle is a build system, like make, it can be very complex. Fortunately AS handles most of the gradle tasks for you with some exceptions. For instance changing what APIs your device targets, or what version of the appcompatibility library it uses. These usually come up when importing someone else's projects and you don't have the same SDKs installed on your machine that the original author does (like when you import my projects). This is a short guide on dealing with those situations.

Open Project

Open build.gradle (for the application)

first lib or application (see first line in gradle file)

apply **plugin: 'com.android.library'** or **apply plugin: 'com.android.application'**

Check your compileSdkVersion

is it installed (red squiggles if not) If not do so or change to one you have, careful when going backwards

use latest SDK defined in the SDK manager that you have

Defaultconfig

which versions you support min to target and all in between

buildtypes (not really relevant in this class)

used to support different project flavors for instance a freemium versus paid

proguard is security and obfuscation

dependencies

libraries you need (where to find)

support lib – look in your sdk location

\$ANDROID_SDK/extras/android/m2repository/com/android/support/appcompat-v7

choose the latest with the major build number that's equiv to your compileSdkVersion

BTW if you change any of these settings resync gradle files and rebuild

settings.gradle – what's in this project

want to add library as a dependency?

First see <https://developer.android.com/studio/projects/android-library.html>

in the **com.android.application** gradle file add a dependency in the dependencies section

like so

```
dependencies {  
    compile fileTree(dir: 'libs', include: ['*.jar'])  
    testCompile 'junit:junit:4.12'  
    compile 'com.android.support:appcompat-v7:25.1.0'  
    compile project(":bitmap_utilities")  
}
```