



## ID Card Toolkit

الهيئة الاتحادية للهوية والجنسية

FEDERAL AUTHORITY FOR IDENTITY & CITIZENSHIP

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**ID Card Toolkit – Android Sample Build Instructions -  
v1.2**

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## Revision History

Version	Date	Description of changes
1.0	29 <sup>th</sup> May, 2018	Release Version 1.0.5
1.1	15 <sup>th</sup> June, 2018	Release Version 1.0.6
1.2	07 <sup>th</sup> July, 2018	Release Version 1.0.7



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## Abbreviations

ICA	Identity & Citizenship Authority
IDE	Integrated Development Environment
WPF	Windows Presentation Foundation
XAML	Extensible Application Markup Language
ADB	Android Debug Bridge
AAR	Android Archived
MAC	Macintosh
ABI	Application Binary Interface



## 1 Introduction

The Identity Citizenship Authority (ICA) has developed the ID Card Toolkit to address the requirements of service providers (SP) to integrate, into their business applications: Identification, Authentication, Digital Signature and Non-repudiation services, around the capabilities of the Emirates ID Card. The Toolkit is comprised of a number of Software Development Kits (SDK) supporting different programming languages and platforms. The supported programming languages include: C/C++, Java, Objective C, Swift and C#.

### 1.1 Purpose

This document is a developer's reference guide to create and build the sample application provided with ICA's ID Card Toolkit android SDK.

## 2 Android Sample Application Build Instructions

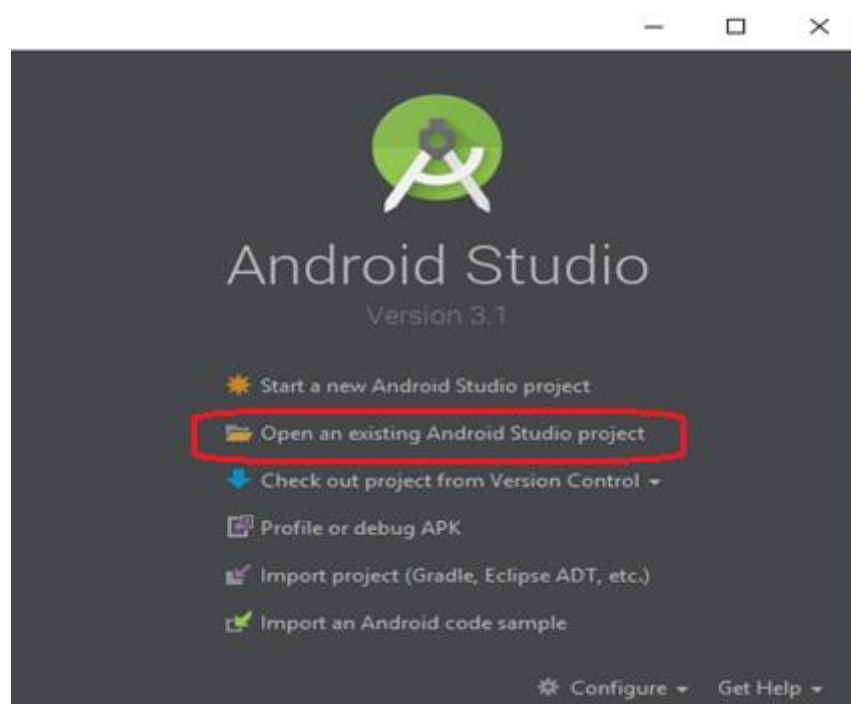
The following build instructions are based on Android Studio 2.1; the setup may vary slightly when using other versions of Android Studio.

### 2.1 Prerequisites

- Java (Java Development Toolkit 1.7 or 1.8)
- ICA's Android SDK : EIDAToolkit.aar
- Plugin libraries (.aar files)
- IDE :Android Studio 2.1 or higher
- Android SDK version 25
- Machine with Windows, Linux or MAC operating system.

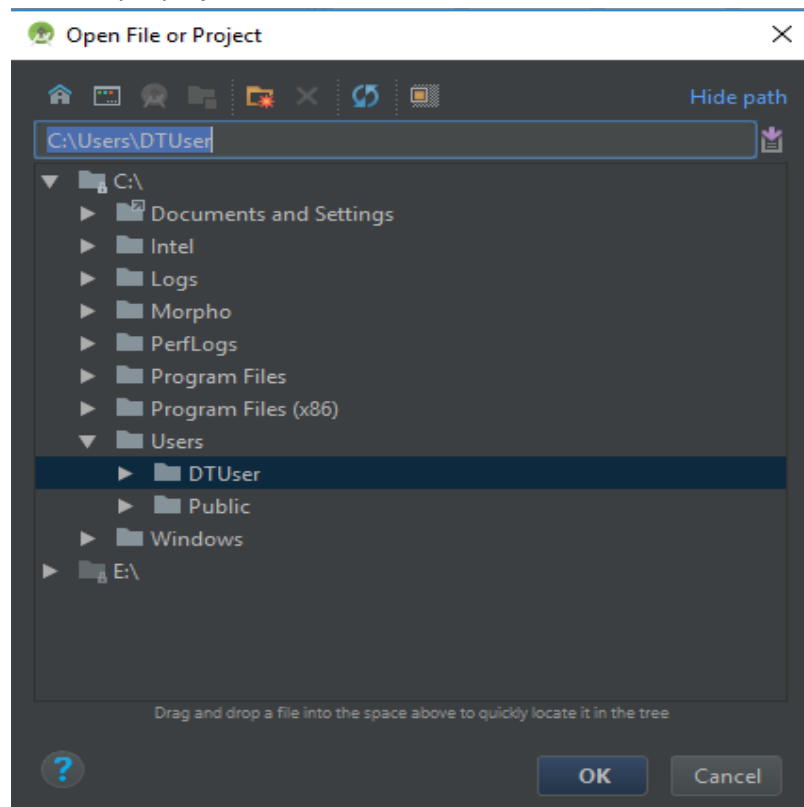
### 2.2 Build Instructions

1. Import the provided sample project to Android Studio. Open Android studio -> Open an existing Android Studio project.



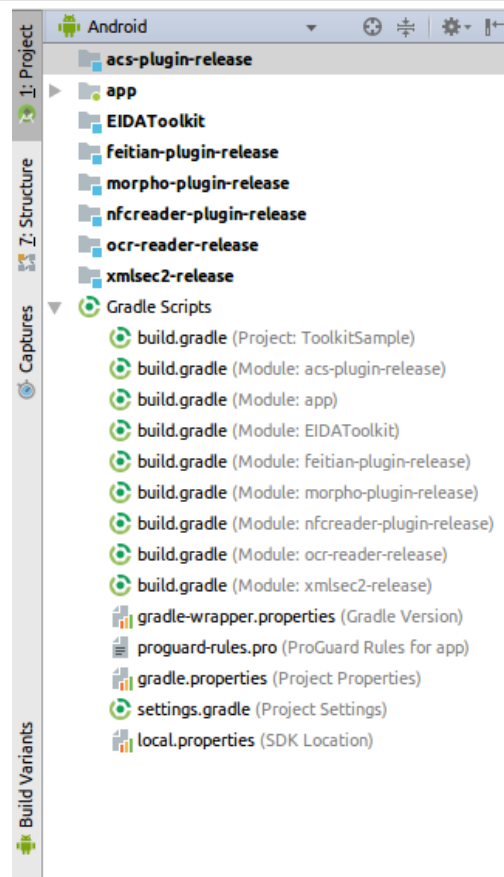


2. Browse to Toolkit Sample project location and click Ok.

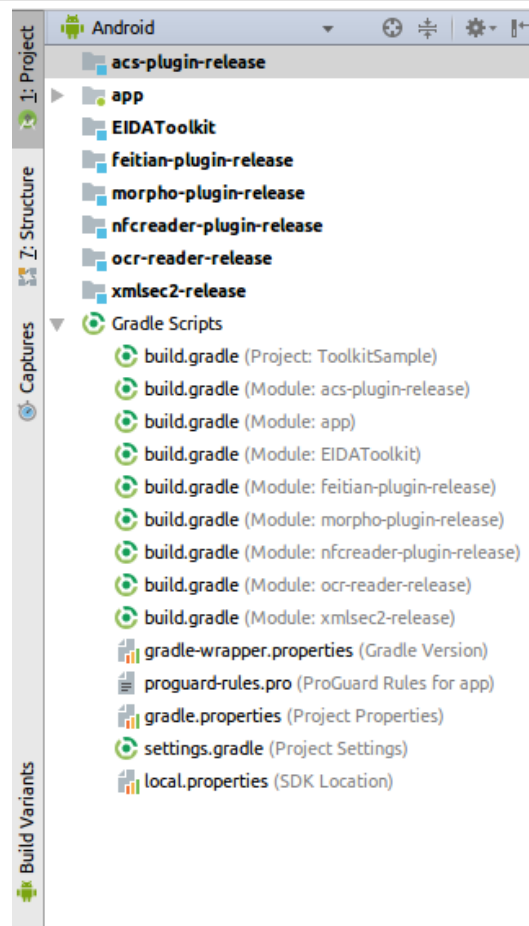


3. Copy / Replace the plugin .aar files to the corresponding plugin folders of the imported project structure.
  - a. Feitian Reader Plugin -> Place in “feitian-plugin-release” folder. This plugin supports armeabi , armeabi-v7a and arm64-v8a ABI’s.
  - b. Android NFC Plugin -> place in “nfcreader-plugin-release” folder. This plugin supports armeabi , armeabi-v7a and arm64-v8a ABI’s.
  - c. ACS Reader Plugin -> place in “acs-plugin-release” folder. This plugin supports armeabi, armeabi-v7a ABI’s.
  - d. Morpho Fingerprint Plugin -> place in “morpho-plugin-release” folder. This plugin supports armeabi , armeabi-v7a ABI’s.

Note: Avoid packaging an incomplete set of binaries, the plugins specific to build architecture need be used along with the sample application. Exclude the plugins that doesn’t support the sample application build architecture. For example, Morpho plugin distributed with Toolkit does not support arm64-v8a ABI and this should not be included in the sample application build for arm64-v8a ABI.



4. Copy / Replace EIDAToolkit.aar file provided with Android SDK to “EIDAToolkit” folder of the imported project structure. Toolkit SDK supports armeabi , armeabi-v7a and arm64-v8a ABI’s.

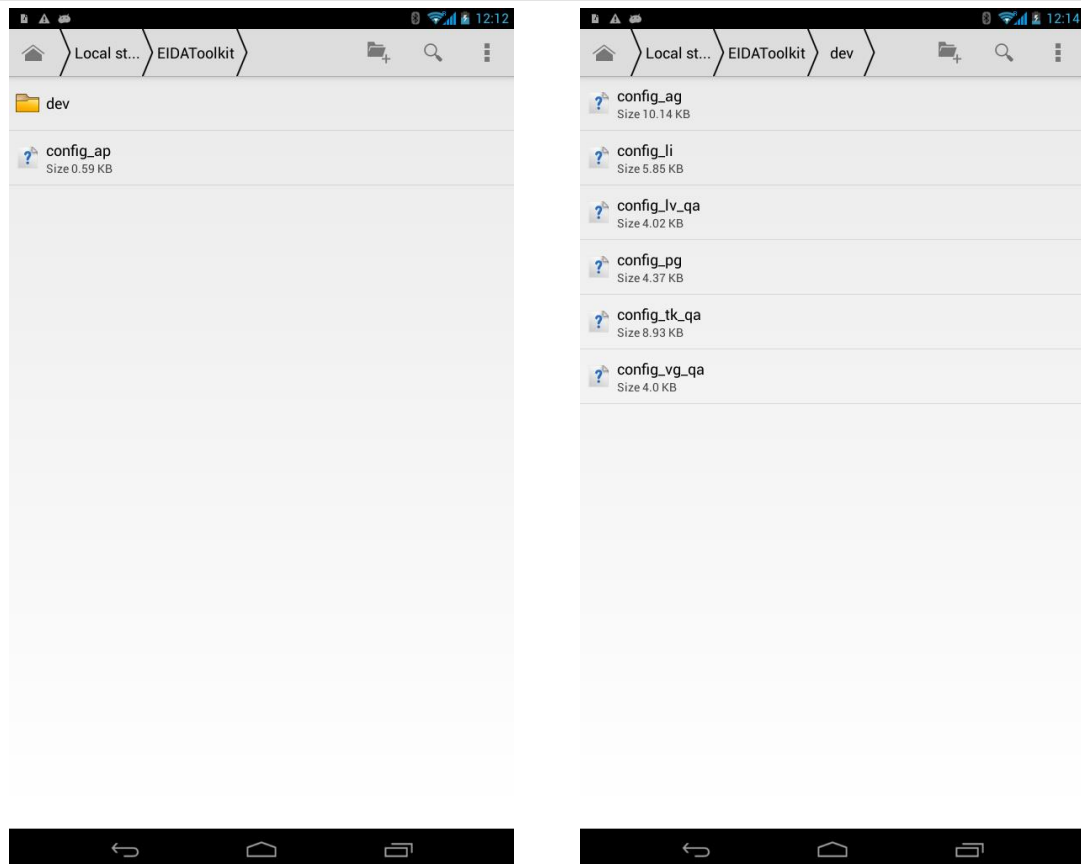


5. Build the Sample Project.
6. Run the sample project by connecting an Android Device via ADB through Android Studio.
7. Folder with name “EIDAToolkit” will be created in Android Phone Memory. Place the config\_ap file in this created folder. Service Provider specific configuration files need to be placed in the same folder or in a sub directory of this folder as mentioned in the “environment” parameter of the config\_ap file.

“environment” parameter value -> sub directory of “EIDAToolkit” folder.

If environment = dev , service provider specific configuration files need to be placed in the “dev” sub directory of the “EIDAToolkit” folder as shown below.





8. After placing the configuration files, access the toolkit services through the running sample Application.