SECUREPLAYER SDK

ANDROID PROJECT SETUP

VERSION 2.0

LAST UPDATED: NOVEMBER 2012

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External Revision History

Rev	Date	Description
1.14	06-Nov-11	First Official Release.
2.0		

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Contents

List of Figures

List of Tables

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1 Introduction

This document explains how to set up and configure an Android project using the Discretix SecurePlayer SDK over Win32 using Eclipse Helios.

1.1 Intended Audience

The intended audience is software developers who need to build or extend an Android project using the Discretix Secure Player SDK.

1.2 Referenced Documents

The following table details relevant documentation referenced in this document:

Table 1: Referenced Documents

Document	Reference
[SP_COMM_IG]	SecurePlayer SDK Common Integration Guide
[SP_ANDR_SDK_IG]	SecurePlayer SDK Android Integration Guide
[SP_ANDR_SDK_API]	SecurePlayer SDK Android API Reference

1.3 Terms and Abbreviations

Table 2: Glossary

Term	Description

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2 Prerequisities

2.1 IDE Prerequisites

2.1.1 Android SDK

Android SDK is installed on the development machine.

The following packages from the SDK Manager must be installed:

- SDK Platforms for Android 2.1 and up (e.g., Android 2.2)
- Google APIs by Google Inc. for Android API 7 and up

2.1.2 Eclipse IDE

Eclipse IDE Helios Version is installed on the development machine.

2.1.3 Android ADT Plug-in

Android ADT Plug-in is installed via Eclipse IDE.

2.2 Android Project Prerequisites

Android project must use Android 3.0 (API 11) or above.

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3 Package Content

The Customer receives a ZIP file containing APIS JavaDocs (**[SP_ANDR_SDK_API]Error! Reference source not found.**), an Integration Guide (**[SP_COMM_IG]** and **[SP_ANDR_SDK_IG]Error! Reference source not found.**), the `libs` folder containing the SecurePlayer SDK, and a SecurePlayer API Demo source code.

The relevant material for integrating the SecurePlayer SDK is contained in the `libs` folder.

3.1 Libs Folder Content

Table 3: Libs Folder Contents

Component	Description
`DxDrmDlc.jar` File	This file (Discretix DRM Download Client) contains the SecurePlayer Java API.
`voOSBasePlayer.jar` File	This file contains a part of the software player Java API.
`voOSBaseSource.jar` File	This file contains a part of the software player Java API.
`voOSEngine.jar` File	This file contains a part of the software player Java API.
`voOSHDMICheck.jar` File	This file contains a part of the software player Java API.
`voOSUtils.jar` File	This file contains a part of the software player Java API.
`assets.jar` File	This file is required for local personalization, for debug purposes only.
`armeabi` Subfolder	This folder contains native shared objects used by the SecurePlayer Java API.

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4 Setup Procedure

4.1 Unzip Package

Extract the `libs` folder from the ZIP provided.

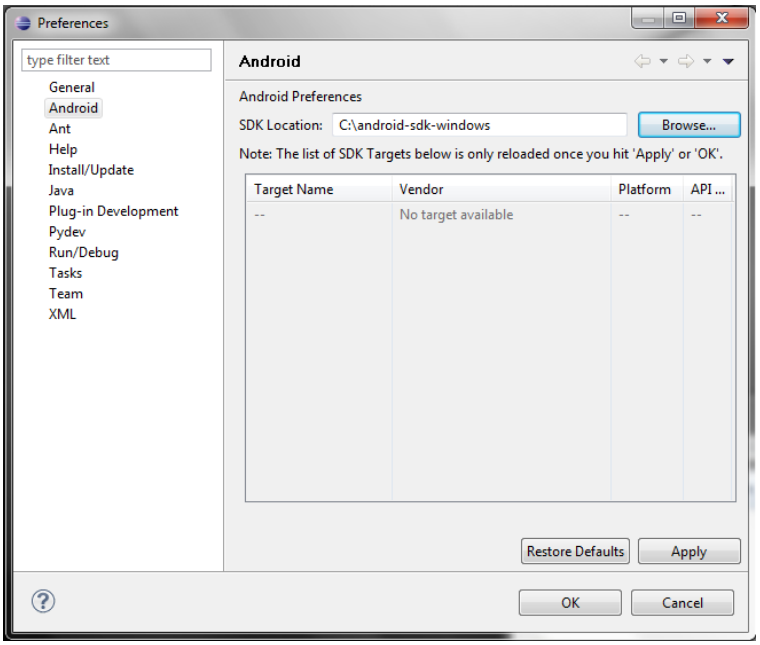
Verify that the structure of the `libs` folder is not changed (see section 3.1)

4.2 Create/Modify Android Project

Listed below are steps to create/modify an Android Project that uses the SecurePlayer API.

4.2.1 Create an Android Project

1. Open Eclipse Helios IDE.
2. Verify that the SDK Location is set. To do so:
   a. Click **Menu**: **Window** → **Preference**.
   b. Select **Android** on the left panel.
   c. Type in the path of the Android SDK within the **SDK Location** text box.



   d. Click **Apply**.
   e. Click **OK**.
3. Open your Android project or create a new one. To create a new Android Project:
   a. Click **File** → **New** → **Android Project**
   b. Set:

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i. Project name: Sample

ii. Build target: Select Android 3.0

iii. Application name: Sample

iv. Package name: com.dxdrmdlc.sample

v. Create Activity: Sample

vi. Min SDK Version: 7

c. Click **Finish**.

NOTE! The values given for Application name, Package name and activity are just an example. These values may be changed according to the project specifics.

4.2.2 Add SecurePlayer API

4.2.2.1 Create Libs Folder

Check whether the `libs` folder exists in your project. If not, create it. To create the folder:

1. Display the **Package Explorer**.
2. Right-click the package root node (project name).
3. In the popup menu select **New** → **Folder**.
4. Add **Folder name**: `libs`.
5. Click **Finish**.

4.2.2.2 Import Jar Files

To import .Jar files:

1. Right-click the `libs` Folder.
2. In the popup menu select **Import**.
3. In the **Import** window select **General** → **File System**.

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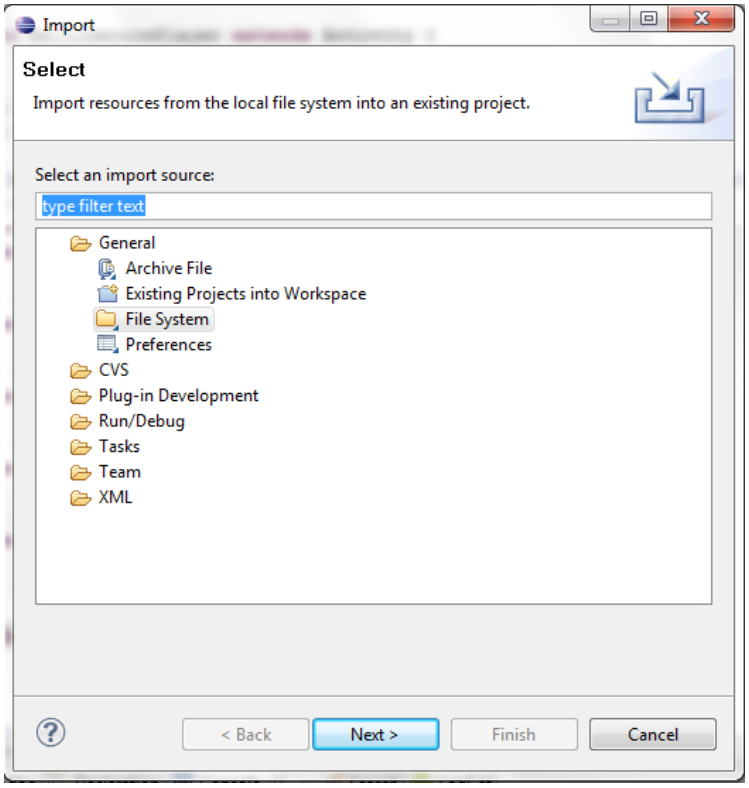
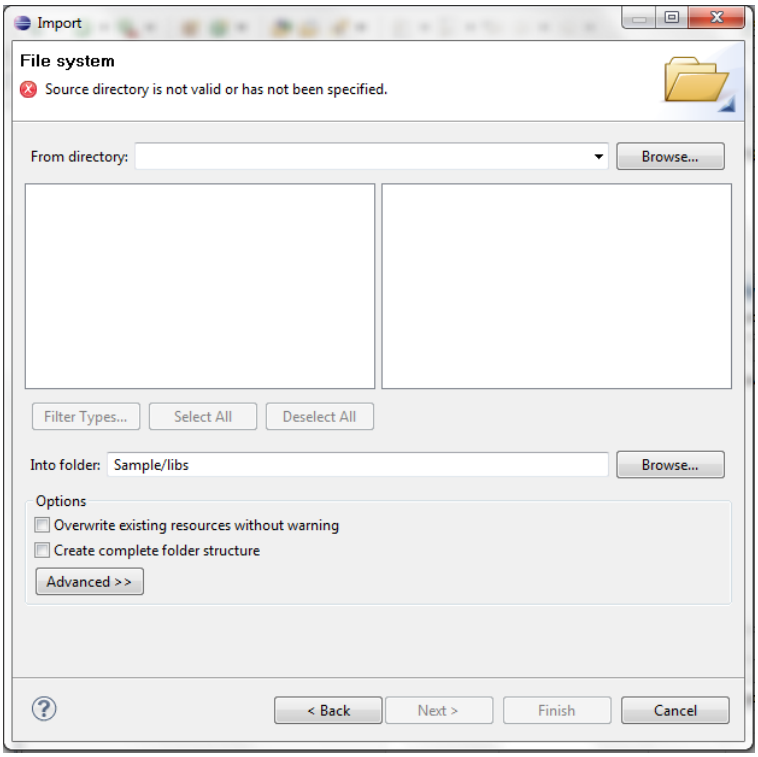


4. Click **Next**.



5. Browse to the location where you placed the `libs` folder that you unzipped from the provided SecurePlayer SDK.
6. Select `assets.jar`, `DxDrmDlc.jar`, `voOSBasePlayer.jar`, `voOSDataSource.jar`, `voOSEngine.jar`, `voOSHDMICheck.jar` and `voOSUtils.jar`.

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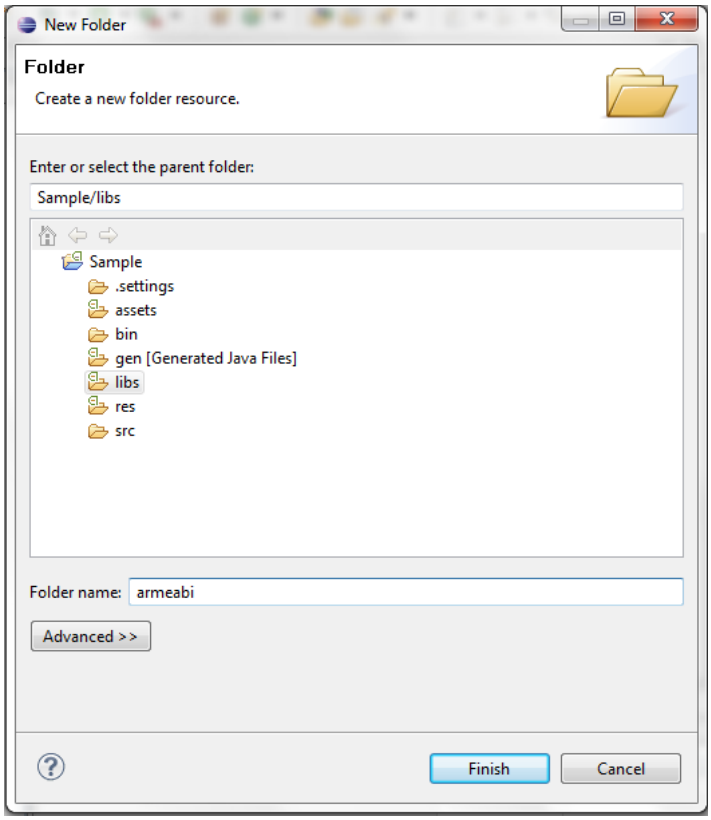
7. Click **Finish**.

4.2.2.3 Import SO Files

To import `.so` files:

1. Right-click the `libs` Folder.
2. In the popup menu select **New → Folder**
3. Add **Folder name**: `armeabi`.



4. Click **Finish**.
5. Right-click on the `armeabi` Folder.
6. In the popup menu select **Import**
7. In the **Import** window select **General → File System**
8. Browse to the location where you placed the `Libs/armeabi` folder that you unzipped from the provided SecurePlayer SDK.
9. Click on **Select All** (select all `*.so` files).

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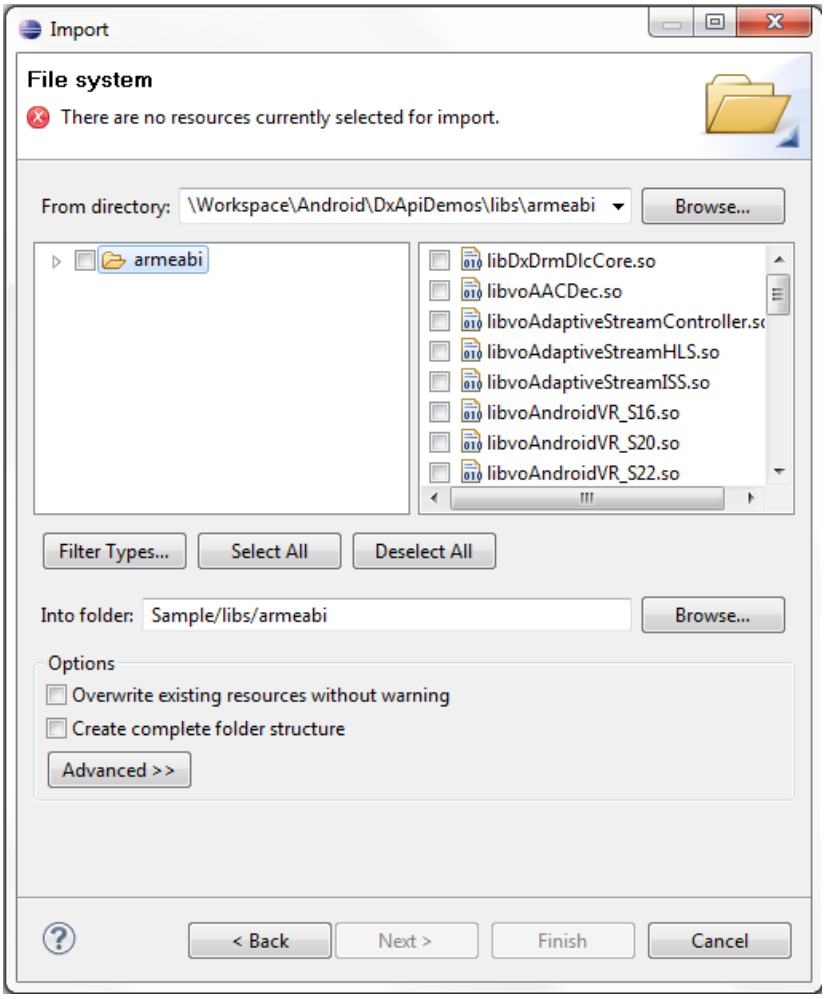

10. Click **Finish**.

4.2.3 Set Project Properties

1. Right-click the package root node (project name).
2. In the popup menu select **Properties**.
3. Select **Java Build Path** on the left panel and then the **Libraries** Tab.

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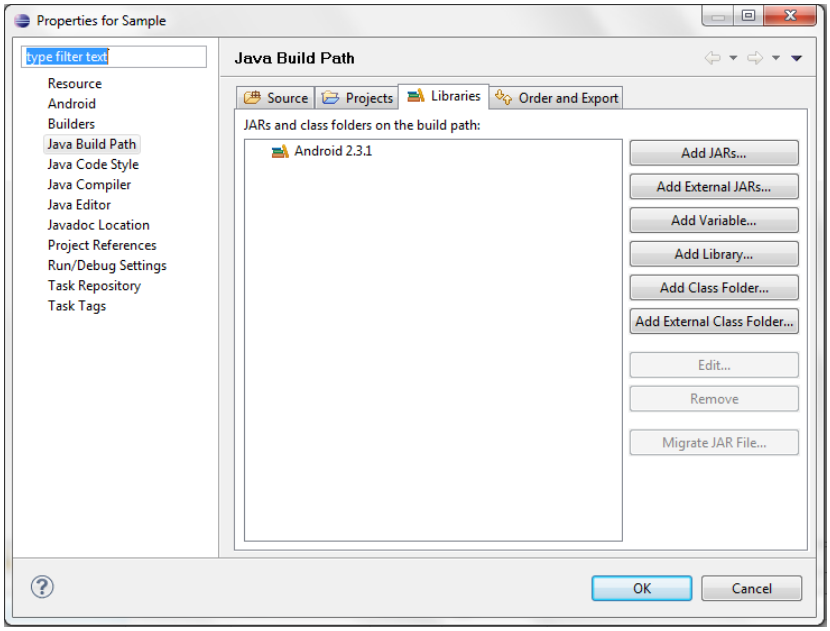
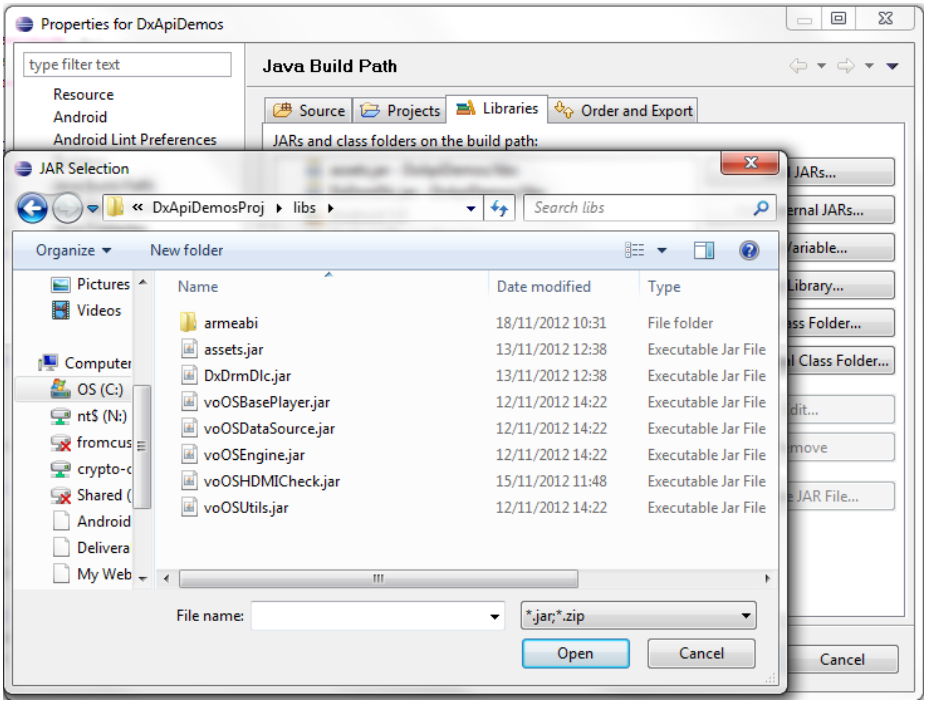


4. Click **Add JARs**.
5. Select the `assets.jar`, `DxDrmDlc.jar`, `voOSBasePlayer.jar`, `voOSDataSource.jar`, `voOSEngine.jar`, `voOSHDMICheck.jar` and `voOSUtils.jar` files under <Project name> → libs



6. Click **OK**.
7. Click **OK**.

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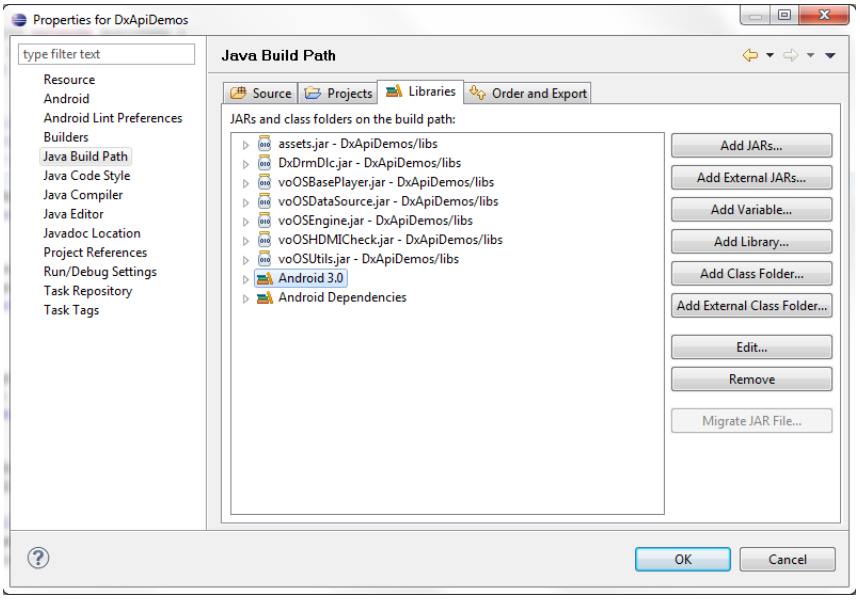

8. Double click `AndroidManifest.xml` in the **Package Explorer**.
9. Add the following user permissions into the manifest, right above the application tag:

```
<uses-permission android:name="android.permission.INTERNET" />
<uses-permission
android:name="android.permission.ACCESS_NETWORK_STATE" />
<uses-permission android:name="android.permission.ACCESS_WIFI_STATE" />
<uses-permission
android:name="android.permission.WRITE_EXTERNAL_STORAGE" />
<uses-permission android:name="android.permission.WAKE_LOCK" />
<uses-permission android:name="android.permission.READ_PHONE_STATE"/>
<uses-permission
android:name="android.permission.DOWNLOAD_WITHOUT_NOTIFICATION"/>
<uses-permission android:name="android.permission.BLUETOOTH" />
<uses-permission android:name="android.permission.BLUETOOTH_ADMIN" />
```

10. Save the file (Ctrl+S).

4.3 Troubleshooting

If you encounter the error `INSTALL_FAILED_INSUFFICIENT_STORAGE` during an attempt to debug application, do the following:

1. Select in menu: **Run → Debug Configuration**
2. Select Target tab.
3. In the **Additional Emulator Command Line Option** textbox type the following text: `-partition-size 1024`

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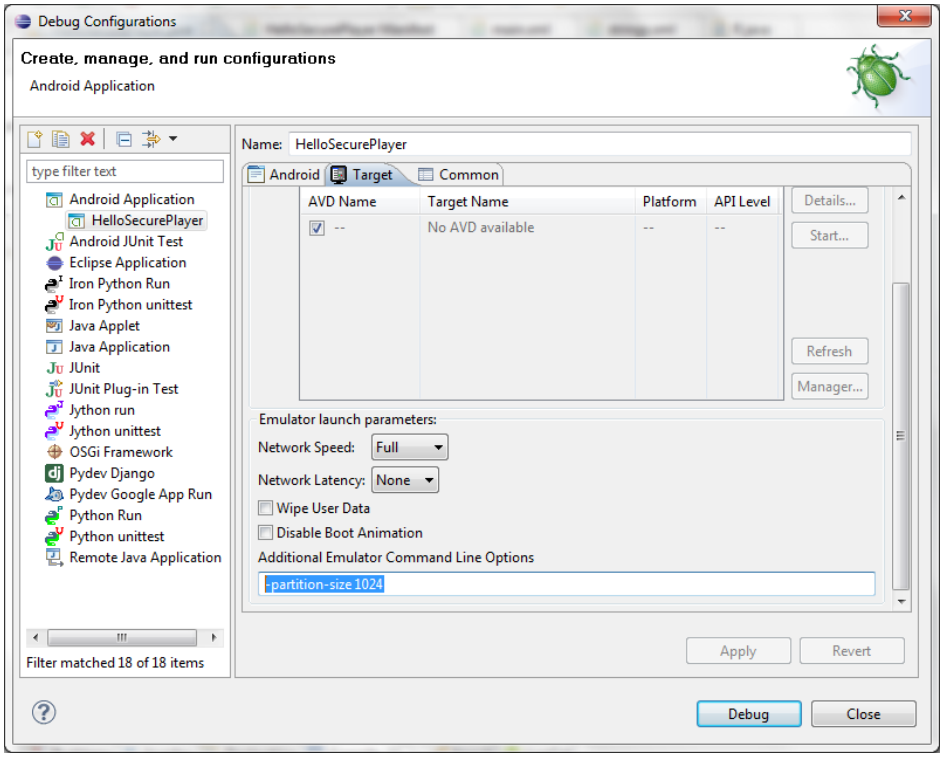

4. Click **Apply**.
5. Click **Close**.

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