



**MOBILE ADS**



## WHY DO YOU NEED TO USE THIS PLUGIN ?

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- Integrate easily all supported advertisers simply by importing their SDK, no other settings are required. It is not mandatory to integrate all/any of the supported advertisers to work.
- Load ad from any ad platform using the same line of code.
- Customizable mediation policy by using either order mediation or percent based mediation. You can select independent type of mediation for each type of ad (banner, interstitial, rewarded video).
- Read mediation config file from an external server of choice to allow the ad display order to be changed without uploading a new build to the store.
- Works for Android/iOS/Windows Store without any additional Unity setup.
- Built in Remove Ads functionality.
- GDPR Compliant.
- COPPA Compliant



## CURRENTLY SUPPORTED ADVERTISERS

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## GDPR COMPLIANCE

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Our plugin does not collect any personal information only selected advertisers collect personal information about users. Here is a list of how any advertiser deals with personal user data and what you have to do to be compliant with GDPR:

### **Unity Ads**

Versions 2.0 and above will automatically present users with an opportunity to opt-out of targeted advertising, with no implementation needed from the publisher. On a per-app basis, the first time a Unity ad appears, the user will see a banner with the option to opt-out of behaviorally targeted advertising. Thereafter, the user can click an information button to receive the opt-out again.

**No specific action needed.**

### **Vungle**

Vungle will display a consent dialog before playing an ad for a European user, and will remember the user's consent or rejection for subsequent ads.

**No specific action needed.**

### **Admob, AdColony, AppLovin, Heyzap**

All require that implementation of getting user consent for receiving targeted ads to be made by publisher in his application and then to be sent to their SDK(Admob, AdColony, AppLovin Heyzap).

If the application user does not accept the compliance they will keep serving ads but it will not be targeted anymore.

**Getting consent from the user is needed to display ads in order to be compliant with GDPR.**

### **Chartboost**

Chartboost requires that implementation of getting user consent for receiving targeted ads to be made by publisher in his application and then sent to Chartboost SDK.

If the application user does not accept the compliance Chartboost SDK will not provide any Ads.

**Getting consent from the user is needed to display ads in order to be compliant with GDPR.**

For detailed implementation see section **Usage Guide**.



## COPPA COMPLIANCE

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COPPA (Children's Online Privacy Protection Act) is required if your app is directed to children under the age of 13. To be compliant with COPPA your app does not have to collect any user data.

Each ad publisher we support has his own way to deal with COPPA. some of them within dashboard and some of them required some in app setup. Here is a detailed description of what you should do to be compliant:

### Admob

Official documentation can be found here:

<https://support.google.com/admob/answer/6223431?hl=en>

We do all that for you, just have to check the box in our Settings Window:

<input checked="" type="checkbox"/> <b>Admob Ads - Supports mediation of all other ads</b>	
Android	<input checked="" type="checkbox"/>
Banner ID	ca-app-pub-9463523453603371/8876116469
Interstitial ID	ca-app-pub-9463523453603371/8731798240
Rewarded Video ID	ca-app-pub-9463523453603371/2577343567
Directed for children	<input checked="" type="checkbox"/>
iOS	<input checked="" type="checkbox"/>
Banner ID	ca-app-pub-9463523453603371/2710427661
Interstitial ID	ca-app-pub-9463523453603371/4161997845
Rewarded Video ID	ca-app-pub-9463523453603371/6486021143
Directed for children	<input checked="" type="checkbox"/>

## **Heyzap**

Official documentation can be found here:

<https://developers.heyzap.com/docs/faq>

Additionally you have to check the directed for children check-box in our Settings Window.

## **Unity Ads**

Official documentation can be found here:

<https://docs.unity3d.com/Manual/UnityAnalyticsCOPPA.html>

All is done from dashboard, no action required from SDK.

## **Chartboost**

Official documentation can be found here:

<https://answers.chartboost.com/en-us/zingtree> in section: Data, Privacy & GDPR -> Behavioral Targeting.

All is done from dashboard, no action required from SDK.

## **AdColony**

Official documentation can be found here:

<http://support.adcolony.com/customer/en/portal/articles/1211853-coppa-f-a-q->

All is done from dashboard, no action required from SDK.

## **AppLovin**

Official documentation can be found here:

<https://dash.applovin.com/docs/integration#androidUnityPrivacySettings>

We do all that for you, just have to check the box in our Settings Window:

## **Vungle**

You have to send an e-mail to Vungle team to enable COPPA for your app. It cannot be enabled from your dashboard.

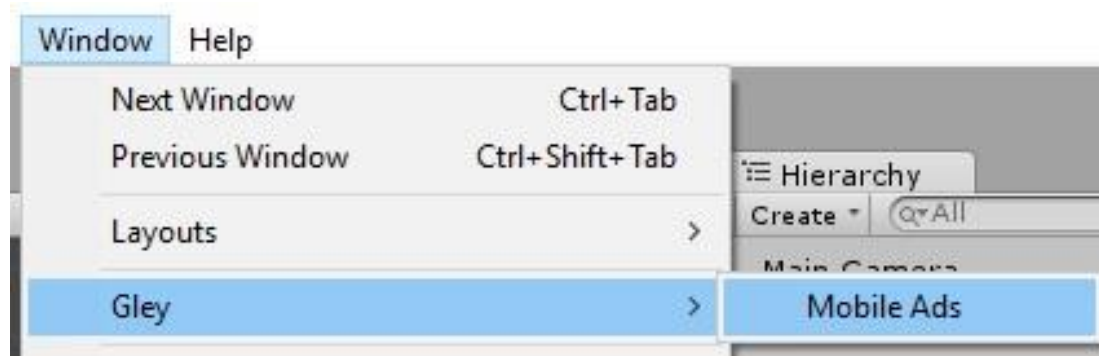


## SETUP GUIDE

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Import **GleyMobileAdsPlugin** into Unity.

Go to Window->Gley->Mobile Ads to open the plugin settings window.





Select the desired advertisers from the settings window using the checkbox.



Select the desired platforms to build for(Android/iOS/Windows Store).

Add sdk keys for all your platforms of choice (Read the SDK provider documentation on how to obtain these keys).

**AdColony Ads**

Android

App ID

Interstitial Zone ID

Rewarded Zone ID

iOS

App ID

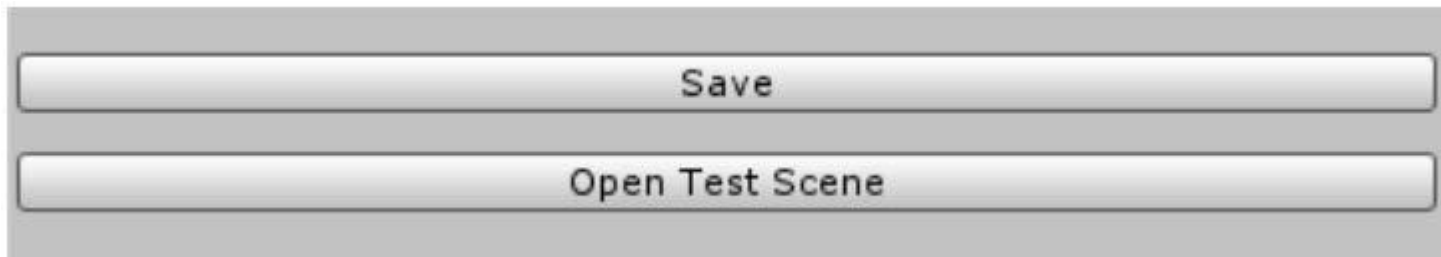
Interstitial Zone ID

Rewarded Zone ID

You just need to import the SDK, no additional setup is required

Download and import the selected advertiser SDK. No additional Unity setup is required.

Press the **Save** button for saving settings made in previous steps and all is done.





## ADVANCED SETUP

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If more than one advertiser is selected the mediation section will be displayed.

**Mediation Options**  
Select your preferred mediation policy for each ad type.

**Order Mediation:**  
Order SDKs by dragging them in the list. The SDK on the top of the list is shown first. If no ad is available for the first SDK the next SDK will be shown. And so on.

**Percent Mediation:**  
An add will be shown based on the percentages indicated next to the advertisers. The higher the percentage, the higher the number of ads will be shown from that provider. Adjust the sliders until you reach the percentage that you think is best for your app.

Unchecking the advertiser will not display any ad from that advertiser.

Banner Mediation:

Banner Advertisers - Percent Mediation

<input checked="" type="checkbox"/>	Heyzap	63 %	<input type="range" value="72"/>	<input type="text" value="72"/>
<input checked="" type="checkbox"/>	Admob	36 %	<input type="range" value="41"/>	<input type="text" value="41"/>

OrderList

Interstitial Mediation:

Interstitial Advertisers - Order Mediation

=	<input checked="" type="checkbox"/>	AdColony	Order: 1
=	<input checked="" type="checkbox"/>	Admob	Order: 2
=	<input checked="" type="checkbox"/>	Chartboost	Order: 3
=	<input checked="" type="checkbox"/>	Heyzap	Order: 4
=	<input checked="" type="checkbox"/>	Unity	Order: 5
=	<input checked="" type="checkbox"/>	Vungle	Order: 6

**THERE ARE 2 OPTIONS:**

**Order Mediation**

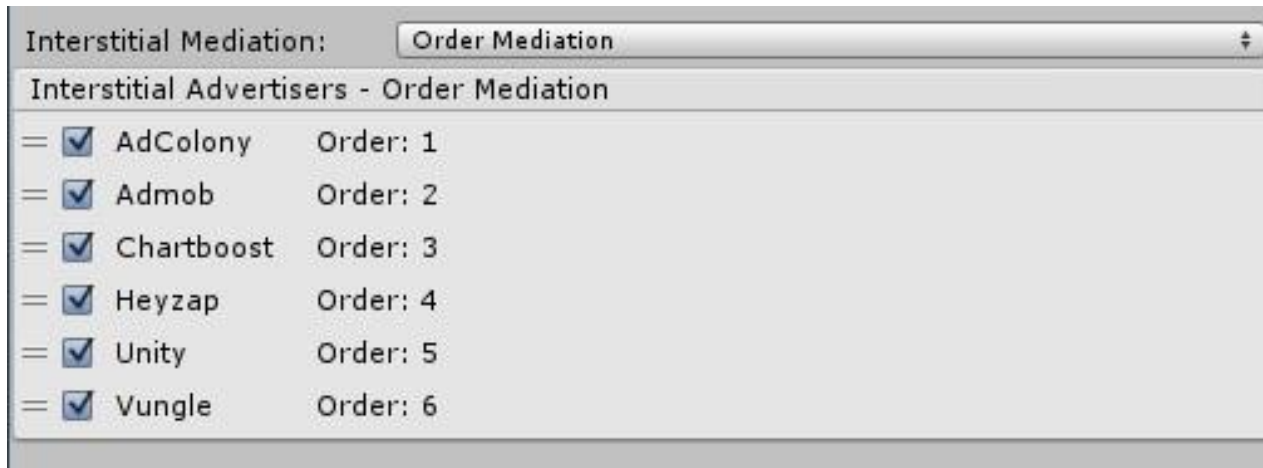
**Percent Mediation**



## ORDER MEDIATION

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- Select Order Mediation from the drop down list.
- Order SDKs by dragging them in the list on the desired position.
- The SDK on the top of the list is shown first.
- If no ad is available for the first SDK the an ad from the next SDK will be shown.
- And so on.



- To remove ads completely from an advertiser just uncheck the box.



## PERCENT MEDIATION

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- Select Percent Mediation from the drop down list
- An add will be shown based on the percentages indicated next to the advertisers.
- A higher percentage means that a higher number of ads will be shown from that advertiser.
- Adjust the sliders until you reach the percentage that you think is best for your app.
- Press the **Order List** button to order the list based on slider settings.

Rewarded Mediation: Percent Mediation

Rewarded Video Advertisers - Percent Mediation

<input checked="" type="checkbox"/>	Heyzap	29 %		68
<input checked="" type="checkbox"/>	Admob	27 %		64
<input checked="" type="checkbox"/>	AdColony	18 %		44
<input checked="" type="checkbox"/>	Unity	16 %		38
<input checked="" type="checkbox"/>	Vungle	7 %		18
<input type="checkbox"/>	Chartboost	0 %		0

OrderList

- To remove ads completely from an advertiser just uncheck the box.

Independent mediation policy can be set for each ad type (banner, interstitial, rewarded video)

The screenshot displays a configuration interface for ad mediation, organized into three main sections: Banner Mediation, Interstitial Mediation, and Rewarded Mediation. Each section allows for independent policy settings for various ad networks.

**Banner Mediation:** Set to **Percent Mediation**.  
Banner Advertisers - Percent Mediation:  
- Admob: 98 % (Slider at 64)  
- Heyzap: 1 % (Slider at 1)

**Interstitial Mediation:** Set to **Order Mediation**.  
Interstitial Advertisers - Order Mediation:  
- Unity: Order: 1  
- Vungle: Order: 2  
- Admob: Order: 3  
- AdColony: Order: 4  
- Chartboost: Order: 5  
- Heyzap: Order: 0

**Rewarded Mediation:** Set to **Percent Mediation**.  
Rewarded Video Advertisers - Percent Mediation:  
- AdColony: 36 % (Slider at 90)  
- Heyzap: 34 % (Slider at 84)  
- Unity: 16 % (Slider at 41)  
- Vungle: 9 % (Slider at 23)  
- Admob: 2 % (Slider at 7)  
- Chartboost: 0 % (Slider at 0)





## EXTERNAL FILE SETTINGS

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To be able to change the above settings outside the build (after the build was published to store) an external config file can be used.

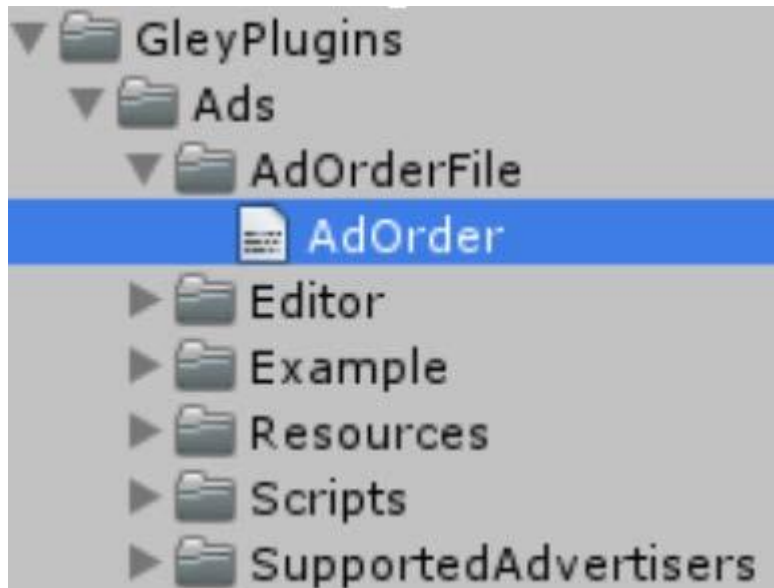
You can generate a settings file that can be uploaded to an external server and the plugin will automatically read the config from that file. This is usefull change the order of your ads without updating your build  
If you use Heyzap or Admob you can do exactly the same thing from their dashboard (recommended approach)

External Settings File url

Generate Settings File

Press the **Generate Settings File** button and all your settings will be saved in a .txt file that can be uploaded to any server and the URL of the file must be pasted in the text box above the button.

The .txt file is located in Assets/GleyPlugins/Ads/AdOrderFile/AdOrder.txt





## USAGE GUIDE

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### Debug Mode

If the debug mode is checked in the settings window, debug messages will be displayed on the screen.

### GDPR Compliance

(it is not required if just Unity and/or Vungle sdk`s are used, otherwise is mandatory for GDPR).

#### Call this before calling initialize the SDK

```
//check if the user was not already asked
if(Advertisements.Instance.UserConsentWasSet()==false)
{
    //display your custom popup to notify the user about targeted
    //advertisements with YES and NO options
    if(YES)
    {
        //means that user agrees with data processing
        Advertisements.Instance.SetUserConsent(true);
    }
    else
    {
        //user doesn't want to share his data
        Advertisements.Instance.SetUserConsent(false);
    }
}
```

### **Advertisements.Instance.SetUserConsent(bool consent);**

Sets and also stores (saves on device) the user answer so all ads from now on will be displayed based on this settings.

The default setting (if is not set by the user) is true - will display targeted ads.

### **bool Advertisements.Instance.UserConsentWasSet()**

If true, user already gave his consent, do not bother him anymore.

A detailed implementation can be found in TestAds.cs

## **Remove Ads**

### **Advertisements.Instance.RemoveAds(true);**

If parameter is true, no banner and interstitial ads will be shown, rewarded videos will work. You have to call this just once, then it will be saved and used accordingly.

You only need this method if you have an in app product that has remove ads functionality or other methods that permit to remove all ads from the game.

## Initializing the SDK:

**Advertisements.Instance.Initialize();**

This method must be called once at the launch of your project.

No prefabs need to be dragged into stage and no scripts needs to be attached to GameObjects.

## Display Banner ad:

**Advertisements.Instance.ShowBanner(BannerPosition.BOTTOM);**

Supported banner positions are TOP and BOTTOM.

## Hide Banner ad:

**Advertisements.Instance.HideBanner();**

## Show Interstitial ad:

//show interstitial based on your mediation settings

**Advertisements.Instance.ShowInterstitial(InterstitialClosed);**

OR:

//show an interstitial from a specific advertiser

**Advertisements.Instance.ShowInterstitial(  
GleyMobileAds.SupportedAdvertisers.AdvertiserName, InterstitialClosed);**

```
private void InterstitialClosed(string advertiser)
{
    Debug.Log("Interstitial closed from: "+ advertiser+" -> Resume Game ");
}
```

The InterstitialClosed callback method is called after an interstitial ad is closed.  
This callback is optional.

## Show Rewarded Video ad:

```
//show rewarded video based on your mediation settings  
Advertisements.Instance.ShowRewardedVideo(CompleteMethod);
```

OR:

```
//show an rewarded video from a specific advertiser  
Advertisements.Instance.ShowRewardedVideo(  
GleyMobileAds.SupportedAdvertisers.AdvertiserName, CompleteMethod);
```

```
private void CompleteMethod(bool completed, string advertiser)  
{  
    Debug.Log("Closed rewarded from: "+advertiser+" -> Completed " + completed);  
    if(completed == true)  
    {  
        //give the reward  
    }  
    else  
    {  
        //no reward  
    }  
}
```

The complete callback method is called after the rewarded video ad is closed.

## Check if ads are ready to be displayed:

```
bool Advertisements.Instance.IsBannerAvailable();
```

```
bool Advertisements.Instance.IsInterstitialAvailable();
```

```
bool Advertisements.Instance.IsRewardVideoAvailable();
```



## EXAMPLES

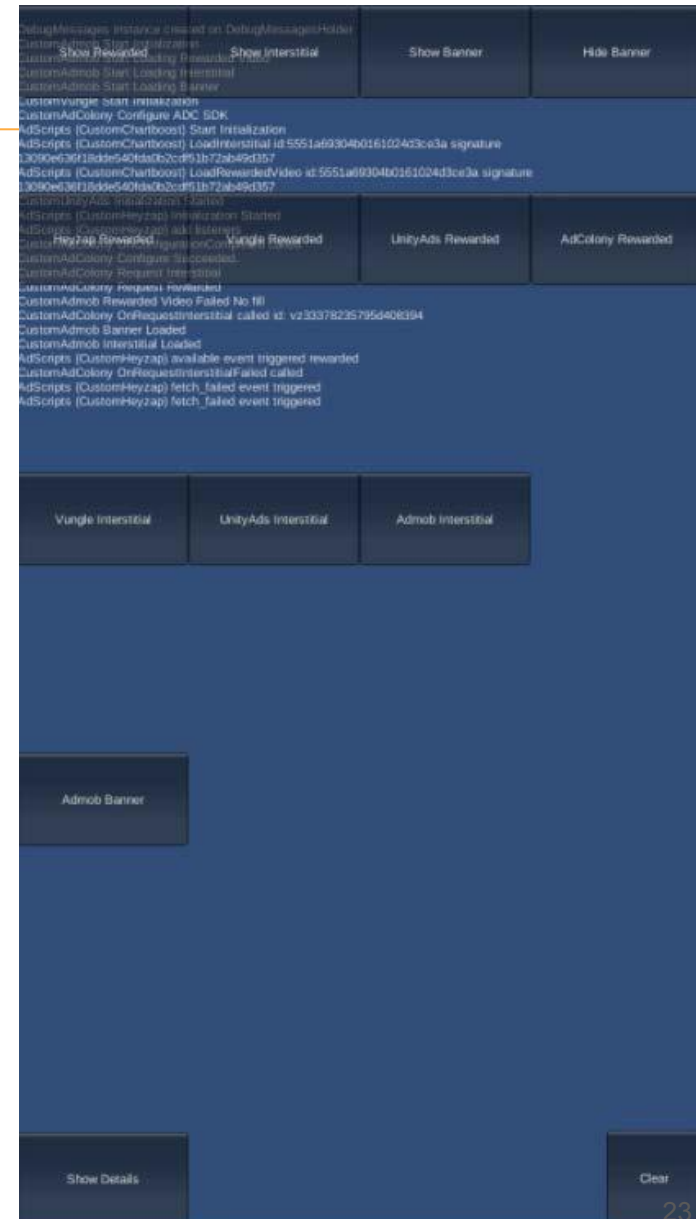
The test scene can be opened by pressing the **“Open Test Scene”** button or by going to:

**Assets/GleyPlugins/Example/TestAdsScene.unity**

Check the **TestAds.cs** for a complete implementation of the plugin.

### How the test scene works:

If an ad is available a button corresponding to that type of ad will be shown, if you press it, the corresponding ad will be displayed.





## ADVERTISER SDK SPECIFIC SETTINGS/ERRORS

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**AdColony** (tested with Version: 3.3.5)

Select Minimum API level from build settings to 14

Version*	1.0
Bundle Version Code	1
Minimum API Level	Android 4.0 'Ice Cream Sandwich' (API level 14)

**Go to menu bar: Asets->Play Service Resolver->Resolve Client Jars**

If this error occurs:

Assets/AdColony/Editor/ADCDependencies.cs(10,23): error CS0433: The imported type  
'Google.JarResolver.PlayServicesSupport' is defined multiple times

Or

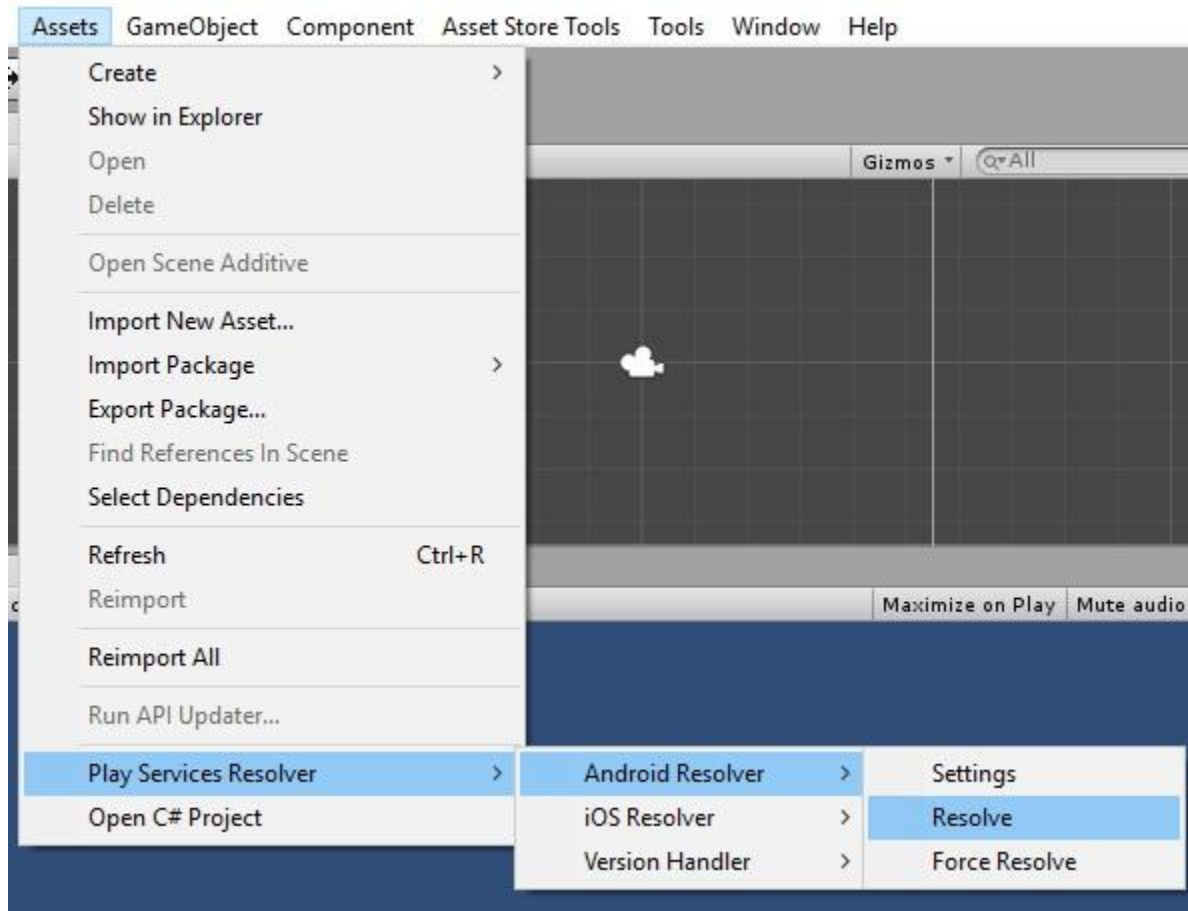
Assets/PlayServicesResolver/Editor/PlayServicesResolver.cs(146,56): error CS0433: The imported type  
'Google.JarResolver.Dependency' is defined multiple times

**Delete: PlayServicesResolver/Editor/JarResolverLib**



**Admob** (tested with version 3.15.0)

Go to menu bar: Assets->Play Service Resolver->Android Resolver -> Resolve





## Admob iOS (tested with version 3.13.1)

If this error occurs when building xCode project:

```
ld: library not found for -lPods-Unity-iPhone
clang: error: linker command failed with exit code 1 (use -v to see invocation)
```

Library not found for -lPods-Unity-iPhone

 Linker command failed with exit code 1 (use -v to see invocation)

 Activity Log Complete 2018/5/24 下午9:07  
1 error, 6 warnings

You probably you don` t have cocoapods installed.  
To install it you need to follow this instructions:

- open Terminal on your mac
- run the following command:
- `sudo gem install -n /usr/local/bin cocoapods`
- enter your password when required
- wait for the installation to finish
- run the following command:
- `pod install`
- after installation is complete build again your project with Unity
- open xcode project but from the .xcworkspace file
- run on your device and it should display Admob Ads.

## AppLovin (tested with version 5.1.4)

## **Chartboost**(tested with version 7.2.0)

If this error occurs:

**ChartboostSDK.CBSettings.Instance.get'** is inaccessible due to its protection level

**Open Chartboost/Scripts/CBSettings.cs and add public in front of static CBSettings Instance**

If this error occurs:

**Main manifest has <uses-sdk android:minSdkVersion='9'> but library uses minSdkVersion='14'**

**Go to: Assets/Plugins/Android/ChartboostSDK/AmdroidManifest and delete this line from the manifest: ChartboostSDK:**

```
<uses-sdk android:minSdkVersion="9" />
```

If this error occurs:

**Failed to re-package resources. No resource found that matches the given name (at 'value' with value '@integer/google\_play\_services\_version').**

**Go to Assets/Plugins/Android/ChartboostSDK/AmdroidManifest and delete this line from the manifest: ChartboostSDK:**

```
<meta-data android:name="com.google.android.gms.version"  
android:value="@integer/google_play_services_version" />
```

If this error occurs:

**Unable to convert classes into dex format. See the Console for details.**

**Delete Assets/Plugins/Android/ChartboostSDK/libs/android-support-v4**

## **Unity** (tested with version 2.3.0)

**Heyzap** (tested with version 9.22.0)

For iOS follow step 5 from Documentation:

[https://developers.heyzap.com/docs/unity\\_sdk\\_setup\\_and\\_requirements](https://developers.heyzap.com/docs/unity_sdk_setup_and_requirements)

**Vungle** (tested with version 6.2.0)

Requires minSdkVersion 27 for build -> **Update your Android SDK**

If this error occurs:

Unable to merge android manifests. Trying to merge incompatible  
/manifest/application/meta-data[@name=android.support.VERSION] element:

**Delete Assets/Plugins/Android/support-v4-26.0.1**

**Delete Assets/Plugins/Android/support-compat-26.0.1**

**Delete Assets/Plugins/Android/support-core-ui-26.0.1**

**Delete Assets/Plugins/Android/support-core-utils-26.0.1**

**Delete Assets/Plugins/Android/support-fragment-26.0.1**

**Delete Assets/Plugins/Android/support-media-compat-26.0.1**

**Delete Assets/Plugins/Android/Vungle\_lib/libs/support-annotations-26.0.1**

If this error occurs:

Failed to re-package resources.

**Delete Assets/Plugins/Android/google-play-services\_lib**

If this error occurs:

Trying to merge incompatible  
/manifest/uses-permission[@name=android.permission.WRITE\_EXTERNAL\_STORAGE] element:

**Go to Assets/Pugins/Android/Vungle\_lib/AndroidManifest and delete this form manifest:**

**<uses-permission**

**android:name="android.permission.WRITE\_EXTERNAL\_STORAGE"android:maxSdkVersion  
="18"/>**

**Vungle Windows** (tested with version 6.2.0)

Requires some additional setup. See official Vungle documentation

<https://support.vungle.com/hc/en-us/articles/115000820512>

**The ads are only showing in build not in Unity editor.**



**Make sure that internet connection is available.**



**Make sure that the device date is correct.**

