MOBILE ADVERT

View online: https://www.construct.net/en/make-games/manuals/construct-3/plugin-reference/mobile-advert

The **Mobile Advert** plugin allows a game to use **Admob** Banner, Interstitial, Rewarded and Rewarded Interstitial adverts on **Android** and **iOS** exports.

Web exports use Google's Ad Placement API to show Interstitial and Rewarded adverts.

> *Admob adverts can only be shown in **Android** or **iOS** exports. Adverts shown in local preview, remote preview, or with any export option other than Android or iOS will use **Google's Ad Placement API**.*

Advert types

Construct supports the following advert types:

Banner Advert

Displays an advert that partially overlays the bottom of the screen, the size of the advert can be specified when it's created. **(Mobile export only)**

Interstitial Advert

Displays a full screen advert, useful for transitioning between layouts. **(Mobile & Web exports)**

Rewarded Advert

Similar to an interstitial advert in that it is a full screen advert. If the user watches this advert for the designated amount of time, they will get the reward payload. If the advert is dismissed before that, the reward is not given. **(Mobile & Web exports)**

Rewarded Interstitial Advert

Similar to rewarded adverts, but users aren't required to opt in to view a rewarded interstitial. Instead of the opt-in prompt in rewarded ads, rewarded interstitials require an intro screen that announces the reward and gives users a chance to opt out if they wish to do so. **(Mobile & Web exports)**

Getting started with Admob

Follow these steps to quickly get started with Admob on mobile exports:

1 Create an Admob account - see: Sign up for AdMob

2 Create an **application** on your Admob account - see: Set up an app in Admob

3 Create **ad units** for your **application** - see: Ad units

4 Copy your application IDs and paste them to the Mobile Advert **Android Application ID** and **iOS Application ID** properties. Finding your Application IDs

5 Submit your business and payment details to your AdMob account and wait for them to verify (which may take 24 hours). This must be done before ads can be served.

Getting started with web adverts

Follow these steps to quickly get started with adverts on web exports:

1 Sign up for an Adsense account if you already don't have one

2 You will need a website which is whitelisted to show these type of ads

3 Fill in this form to indicate interest in using Google's Ad Placement API

How do I get my site whitelisted?

1 Visit the **Sites** options in the left hand side menu of your Adsense account

2 Find the **Add site** button and click it to start adding your website

3 Follow the steps to add your website

4 You will need to modify the root of your website by adding a small script to it

5 Request a review

After sometime, hopefully your website will be approved and your game will be able to show ads.

Considerations for web adverts

1 You will need to have your website be a real one, that means that it should have real content and generally speaking look like it is serving a purpose. If you just setup a test website with no content, it is less likely it will be approved.

2 Since the parent website your game will be hosted in needs to be whitelisted so the game can show ads, the ideal use case is you have control of the hosting website.

3 If a game is shown in a cross origin iframe, it won't be allowed to show ads.

User Consent (Mobile exports only)

In order for the **Show User Consent Dialog** action to show **GDPR** consent forms and **IDFA** messages (iOS only), it is required to set them up in your Admob account.

GDPR message

Follow this guide to Create a GDPR message

IDFA message

Follow this guide to Create an IDFA message

> *IDFA messages are not strictly necessary, but they can help in getting consent from the user by making the purpose of the dialog clearer.*

> *If you have an **IDFA** message set up and the application is opened by a device in the **EEA** or **UK**, the **App Tracking Transparency** dialog will be shown immediately after the **EU** consent form. This is how the underlying SDK works and it is mentioned in Google's own quick start guide.*
> *However, if you disable your **IDFA** message or don't have one at all, then the **App Tracking Transparency** dialog won't be shown automatically and you will be able to control when it appears by using the **Request IDFA** action.*

> *Note when you first set up your account and submit your business/payment details, it can take up to 24 hours to complete verification. Wait for this to complete before trying to test your adverts, since it may fail to work until verification has completed.*

Mobile exports required properties

If you intend to show ads in mobile exports, either **Android** or **iOS**, you will need to specify your application IDs on the Mobile Advert object. Without these values the plugin will not be able to start.

Web exports required properties

If you intend to show ads in a web export, you will need to specify your publisher ID in the Mobile Advert object. Without that value, the plugin will not be able to show web adverts.

That's all the configuration you need for now. You can create new applications and edit your advert units later if you need.

Initialization

The plugin will automatically initialize when the app starts. However this may involve showing a user consent prompt to the user for regulatory reasons, depending on the user's region. Therefore you should wait for the **On configuration complete** trigger to fire before attempting to create or show any ads. You should also use the **On configuration failed** trigger, and perhaps the **Is configured** condition, to check if configuration failed for any reason, such as being on an invalid platform or one of your properties being incorrect.

*Don't want to show the user consent dialog at startup? By default users in the **EEA & UK** (European Economic Area and United Kingdom) will see the user consent dialog before your title screen the first time they start the game. If you don't want this to happen then uncheck the property **Show on startup**. Then use the **Show user consent dialog** action to show the dialog at a time of your choosing.*

Using IDFA on iOS

As of iOS 14+, the *identifier for advertisers* or **IDFA** is no longer available to apps by default. This can affect the performance of ads. To use the **IDFA**, you must prompt the user for permission to access it with the **Request IDFA** action. You may also wish to do this on startup. The **On IDFA request complete** trigger fires when the user makes a decision, and the **IDFAStatus** expression indicates the outcome.

*Requesting the **IDFA** requires using Xcode 12+ with iOS 14+.*

*Currently no prompt is required on Android, so the **Request IDFA** action will immediately trigger **On IDFA request complete** with an **IDFAStatus** of "not-determined".*

The App Tracking Transparency framework on iOS

In order to support the **Request IDFA** action, the Mobile Advert plugin includes an iOS library called **App Tracking Transparency**. To comply with Apple's App Store review process you may be required to indicate to the reviewers where your app uses the **IDFA** prompt. Therefore you may be required to add the **Request IDFA** action somewhere in your project. You do not have to always request it on startup - it could for example be a setting in a menu, and then you indicate to the App Store reviewers where to find the option.

Advert Loading

Adverts need to load over the network before you can use them. When creating an advert you can choose to "show" the advert immediately after it has loaded. However if it's more suitable for your game you can choose to load your advert ahead of time by creating the advert, but not showing it, then later displaying the advert when you need it. This will prevent your user experiencing a lag while the advert loads. Be sure to check your advert has actually loaded before trying to display it, loading times for rewarded adverts in particular can be quite long. It's also worth remembering that you are not guaranteed to receive an advert when you request one, so take that into account when you are making your events.

Banner Advert Sizes

To display a banner advert you must specify a size for it, generally smart portrait/landscape will work for most situations but here are the specifiable sizes. Using a size that is larger than the display will prevent it from loading. Smart banner will vary in height depending on the available screen height. With a smart banner if the base image isn't wide enough to fill the screen black bars are displayed on either side.

Smart portrait

Screen width x 32/50/90

Smart landscape

Screen width x 32/50/90

Standard

320 x 50

Large

320 x 100

Medium

300 x 250

Full (tablet only)

468 x 60

Leaderboard (tablet only)

728 x 90

All banner sizes are in device pixels. That means that a banner will have an actual size according to the pixel density of the device it is being shown in.

Mobile Advert Properties

Testing mode

Changes the displayed adverts units to testing adverts. Should be used during development. **(Mobile & Web exports)**

Android application ID

The Admob application ID for the Android version of your game. This has the format "ca-app-pub-0000000000000000~0000000000". On Android this value is required, and your application will fail to start unless it is provided and correct. Find your app ID **(Mobile exports only)**

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iOS application ID

The Admob application ID for the iOS version of your game. This has the format "ca-app-pub-0000000000000000~0000000000". On iOS this value is required, and your application will fail to start unless it is provided and correct. Find your app ID **(Mobile exports only)**

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Spoof location (debug)

Fakes the device location to allow testing the user consent dialog in different scenarios. Testing mode must be enabled for this to work. **(Mobile exports only)**

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Show on start up

Choose wether to show the consent form automatically on startup or not. This option doesn't do anything in web exports. **(Mobile exports only)**

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Publisher ID

Adsense publisher ID, found in your Adsense account. This is required if you intend to show adverts in a web export. Find your publisher ID **(Web exports only)**

Test Ads

It is important that when you're developing and testing your application you use test adverts. Viewing real adverts during your testing may result in your Admob account being suspended or closed! Testing mode can be enabled by setting the Testing mode property on the plugin. Testing mode is enabled by default so remember to turn it off when you publish your game!

GDPR Consent Form in Testing Mode

When Testing mode is enabled, the GDPR consent form will be shown every time the application starts, regardless of previous choices. When you are ready to deploy, disable

Testing mode so the form can behave normally and only be shown the first time the application is executed after installing it.

Spoof location

*Unfortunately at the moment it is not possible to use this feature in a real device with iOS version 14 or greater. This is because to enable the feature, it is necessary to have access to the **IDFA** beforehand, which is not possible without first showing the **App Tracking Transparency** dialog. Since the dialog can only be shown one time, enabling the feature makes it impossible to later test how the application would behave upon first installing it. The feature can still be used in a simulator though.*

Ads in preview

When previewing a project the application will behave as a web export, so it will show test ads as if it was a web export. Additionally it will simulate frequency capping, alternating between a valid ad request and an invalid ad request.

Differences between mobile and web adverts

Ad units

If you only want to show web ads, it is not necessary to provide ad units in your actions, the field can be left blank. If you are planning to use the same project for web and mobile though, you will still need to provide them.

Rewarded ads

There is a slight difference between rewarded ads in mobile and rewarded ads in web that should be considered.

In mobile when the ad is viewed you can use the **RewardType** and **RewardValue** expression to get information about the reward and this information is set in your Admob account through the ad unit.

In a web export, because you don't use ad units, the rewarded ads will always return the value *"Reward"* for the **RewardType** expression and the value of *"1"* for the **RewardValue** expression.

For this reason it is recommended to use the Platform Info plugin to decide what to do after a rewarded ad is viewed, depending on what platform the game is running on.

Mobile Advert Conditions

On Banner Ready

Triggers when a banner advert has loaded.

On Interstitial Ready

Triggers when a interstitial advert has loaded.

On Rewarded Ready

Triggers when a rewarded advert has loaded.

On Rewarded Interstitial Ready

Triggers when a rewarded interstitial advert has loaded.

On Banner Failed to Load

Triggers when a banner advert fails to load.

On Interstitial Failed to Load

Triggers when a interstitial advert fails to load.

On Rewarded Failed to Load

Triggers when a rewarded advert fails to load.

On Rewarded Interstitial Failed to Load

Triggers when a rewarded interstitial advert fails to load.

On Banner Shown

Triggers when a banner advert has been displayed.

On Interstitial Complete

Triggers when a interstitial advert has closed.

On Rewarded Complete

Triggers when a rewarded advert has closed, and the user has been rewarded.

On Rewarded Interstitial Complete

Triggers when a rewarded interstitial advert has closed, and the user has been rewarded.

On Banner Hidden

Triggers when a banner advert has been hidden.

On Interstitial Cancelled

Triggers when a interstitial advert has been cancelled.

On Rewarded Cancelled

Triggers when a rewarded advert has been cancelled.

On Rewarded Interstitial Cancelled

Triggers when a rewarded interstitial advert has been cancelled.

On Configuration Complete

Triggers when the application ID has been successfully set.

On Configuration Failed

Triggers when the application ID failed to be set.

On IDFA request complete

Triggered after the *Request IDFA* action once the user has made a decision. The outcome of their decision is reflected in the *IDFAStatus* expression.

Is Configured

True if the plugin has been succesfully configured.

Is Showing Banner

True if a banner advert is being shown.

Is Showing Interstitial

True if a interstitial advert is being shown.

Is Showing Rewarded

True if a rewarded advert is being shown.

Is Showing Rewarded Interstitial

True if a rewarded interstitial advert is being shown.

Is Banner Loaded

True if a banner advert is ready to be shown.

Is Interstitial Loaded

True if a interstitial advert is ready to be shown.

Is Rewarded Loaded

True if a rewarded advert is ready to be shown.

Is Rewarded Interstitial Loaded

True if a rewarded interstitial advert is ready to be shown.

Is in EEA or unknown

True if the SDK consider the device to be inside the EEA or is unable to detect the location. As it is a requirement to show the dialog inside the EEA "unknown" is considered effectively the same as being in the EEA. In web exports this condition always evaluates to "true".

Mobile Advert Actions

Create Banner

Create a banner advert with a AdMob advert unit ID and size. Optionally show when loaded. Only one banner may be created at a time. If the **reload** parameter is set to **true** an existing banner will be reloaded with the new settings. Setting **overlap** to **true** causes the banner to overlap the main Webview, If **false** the main Webview will be resized so both it and the banner fit in the screen without overlapping. In the case of setting **overlap** to **true** the **offset** parameter can be used to specify an amount by which the banner should be offset from it's initial position.

Create Rewarded

Create a rewarded advert with a AdMob advert unit ID. Optionally show when loaded. Only one rewarded advert may be created at a time.

Create Interstitial

Create a interstitial advert with a AdMob advert unit ID. Optionally show when loaded. Only one interstitial may be created at a time.

Create Rewarded Interstitial

Create a rewarded interstitial advert with a AdMob advert unit ID. Optionally show when loaded. Only one rewarded interstitial may be created at a time.

Show User Consent Dialog

Shows the modal user consent dialog

Show Banner

Show a loaded banner advert. Will only display if there is a loaded banner ready.

Show Rewarded

Show a loaded rewarded advert. Will only display if there is a loaded video ready.

Show Interstitial

Show a loaded interstitial advert. Will only display if there is a loaded interstitial ready.

Show Rewarded Interstitial

Show a loaded rewarded interstitial advert. Will only display if there is a loaded rewarded interstitial ready.

Hide Banner

Hide an active banner advert (destroys the advert). Does nothing if no banner is available.

Request IDFA

Prompt the user for permission to use the *identifier for advertisers* (IDFA). When the user makes a decision, *On IDFA request complete* triggers, and the outcome is indicated in the *IDFAStatus* expression. See the section on using the IDFA above.

Set Max Advert Content Rating

Filter the viewed adverts based on the digital content label classifications for various age groups. This action is not supported in web exports.

Tag For Child Directed Treatment

Request advert content that is child-directed for the purposes of the Children's Online Privacy Protection Act (COPPA). This action is not supported in web exports.

Tag for under age of consent

Indicate the user should be treated as under the age of consent as per the restrictions in the European Economic Area(EEA) General Data Protection Act(GDPR). This action is not supported in web exports.

Mobile Advert Expressions

ErrorMessage

When in a failure condition, an error message related to it.

RewardType

When in a **On Rewarded Complete** condition, the type of the related reward. In web exports this expression always returns the value "Reward".

RewardValue

When in a **On Rewarded Complete** condition, the value of the related reward. In web exports this expression always returns the value "1".

RewardInterstitialType

When in a **On Rewarded Interstitial Complete** condition, the type of the related reward. In web exports this expression always returns the value "Reward".

RewardInterstitialValue

When in a **On Rewarded Interstitial Complete** condition, the value of the related reward. In web exports this expression always returns the value "1".

ConsentStatus

The current user consent status as a string, can take the values of: UNKNOWN, NOT_REQUIRED, REQUIRED or OBTAINED. In web exports this expression always return the UNKNOWN value.

IDFAStatus

Indicates the outcome of requesting to use the IDFA. If no request has been made this defaults to "not-determined". After a request it is either "authorized" or "denied" depending on

the choice the user made. In web exports this expression always return the "not-determined" value.