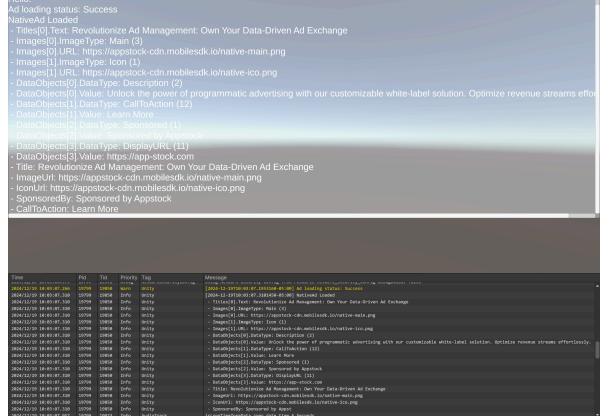


Overview

Appstock SDK is a native library that monetizes iOS/Android applications.

"AppstockSDK for Unity" is a C# facade for using the native library within [Unity](#).

Supported formats

Banner	Interstitial	Rewarded	Native
Overlay over the app anchored to screen edges.	Fullscreen ads to distract your users with.	Provide bonuses to users without making them pay actual money.	Let you (the developer) the freedom to seamlessly integrate them into your app.
			 <p>Ad loading status: Success NativeAd Loaded - Title[0].Text: Revolutionize Ad Management: Own Your Data-Driven Ad Exchange - Images[0].ImageType: Main (3) - Images[0].URL: https://appstock-cdn.mobilesdk.io/native-main.png - Images[1].ImageType: Placeholder - Images[1].URL: https://appstock-cdn.mobilesdk.io/native-ico.png - DataObjects[0].DataType: Description (2) - DataObjects[0].Value: Unlock the power of programmatic advertising with our customizable white-label solution. Optimize revenue streams effortlessly. - DataObjects[1].DataType: CallToAction (12) - DataObjects[1].Value: Get Started - DataObjects[2].DataType: Data (1) - DataObjects[2].Value: DisplayURL (11) - DataObjects[3].Value: https://app-stock.com - Title: Revolutionize Ad Management: Own Your Data-Driven Ad Exchange - ImageURL: https://appstock-cdn.mobilesdk.io/native-main.png - IconURL: https://appstock-cdn.mobilesdk.io/native-ico.png - SponsoredBy: Sponsored by Appstock - CallToAction: Learn More</p>

Package Contents

This code is mostly a code library so you will rarely (if ever) need to browse through the assets.

Editor/

This folder contains an XML for [External Dependency Manager for Unity \(EDM4U\)](#).

See [Installation: Native dependencies](#) for more details.

Plugins/

This is where the code exists as a set of [managed](#) (DLL) and [native](#) (AAR/framework) [plugins](#).

The meta files have already been configured for most cases.

See [iOS Simulator on arm64](#) for more details.

Installation

Installing the package

Use the [Package Manager window](#) to [Add UPM package](#).

Native dependencies

This package includes XML (at `Editor/NativeDependencies.xml`) for [External Dependency Manager for Unity](#) (EDM4U).

There are declared the versions of (AppstockSDK) native libraries to pull from [CocoaPods](#) / [Maven](#).

If you already have EDM4U package installed, it should handle the rest.

Otherwise, you would need to manually (or via script) add these iOS/Android dependencies to the project upon build/export.

In case of any breaking changes within newer versions of native libraries, try updating this plugin package, or downgrade those dependencies back, down to the exact minimal version specified in XML.

Requirements

This package was developed with:

IDE	version
Unity	2021.3.45f1 and 6000.0.29f1
Xcode	16.1
Android Studio	2024.2.1

Which entails the following:

Build parameter	value	Notes
Minimal iOS target	12.0	-
Android Minimal SDK	22	-
Android Compile SDK	34	does not restrict from targeting higher
Swift	6	-
Java	17	-
C#	9.0	-
.NET Standard	2.1	see .NET profile support

Unity 2021/2022 Android issues

TIP

You are strongly advised to use Unity 6 for Android builds as everything works fine there.

We have encountered an error containing the following lines:

```
Execution failed for task ':launcher:mergeExtDebug'.
```

```
> Could not resolve all files for configuration ':launcher:debugRuntimeClasspath'.
```

```
> Failed to transform (...).aar
```

This is similar to the issues described in

- [Gradle build issues for Android API SDK 35 in Unity 2022.3LTS](#)
- [Unable to Create Builds for Android SDK 35 with Unity 2022.3.40](#)

despite not being directly related to Android 35.

iOS blocks insecure requests

Native SDK binaries might attempt to access ad exchange servers via "insecure" HTTP (rather than HTTPS), which can fail due to iOS feature -- see [Preventing Insecure Network Connections](#).

To allow such communication in your app, `Info.plist` should be modified.

For more info see:

- [App Transport Security has blocked a cleartext HTTP \(`http://`\) resource load since it is insecure](#).

Here is a modified script that can be put inside [Editor folder](#) to automate this task.

```
using UnityEditor;
using UnityEditor.Build;
using System.IO;
using UnityEditor.Build.Reporting;
using UnityEditor.iOS.Xcode;

// adds an ATS exception domain to the Info.plist
public class InfoPlistUpdater : IPostprocessBuildWithReport
{
    public int callbackOrder { get { return 0; } }

    public void OnPostprocessBuild(BuildReport report)
    {
        BuildTarget buildTarget = report.summary.platform;
        string pathToBuiltProject = report.summary.outputPath;

        if (buildTarget == BuildTarget.iOS)
        {
            // Get plist
            string plistPath = pathToBuiltProject + "/Info.plist";
            PlistDocument plist = new PlistDocument();
            plist.ReadFromString(File.ReadAllText(plistPath));

            PlistElementDict allowsDict =
            plist.root.CreateDict("NSAppTransportSecurity");

            allowsDict.SetBool("NSAllowsArbitraryLoads", true);

            PlistElementDict exceptionsDict =
            allowsDict.CreateDict("NSEExceptionDomains");

            PlistElementDict domainDict = exceptionsDict.CreateDict("mobilesdk.io");
            domainDict.SetBool("NSEExceptionAllowsInsecureHTTPLoads", true);
        }
    }
}
```

```
    domainDict.SetBoolean("NSIncludesSubdomains", true);

    // Write to file
    File.WriteAllText(plistPath, plist.ToString());
}

}

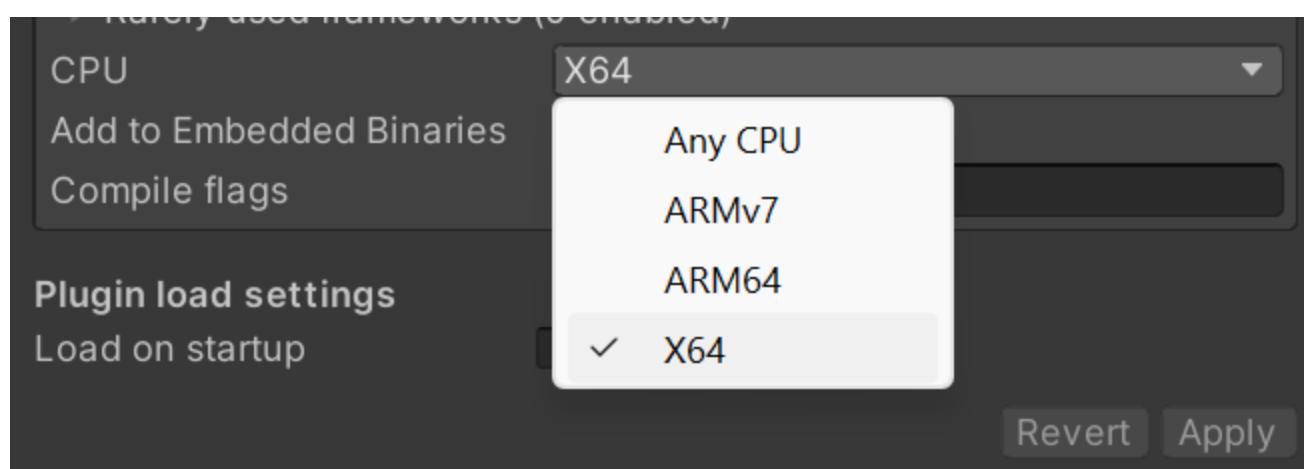
}
```

iOS Simulator on arm64

The package has two versions of native plugin (in [Plugins/iOS](#)):

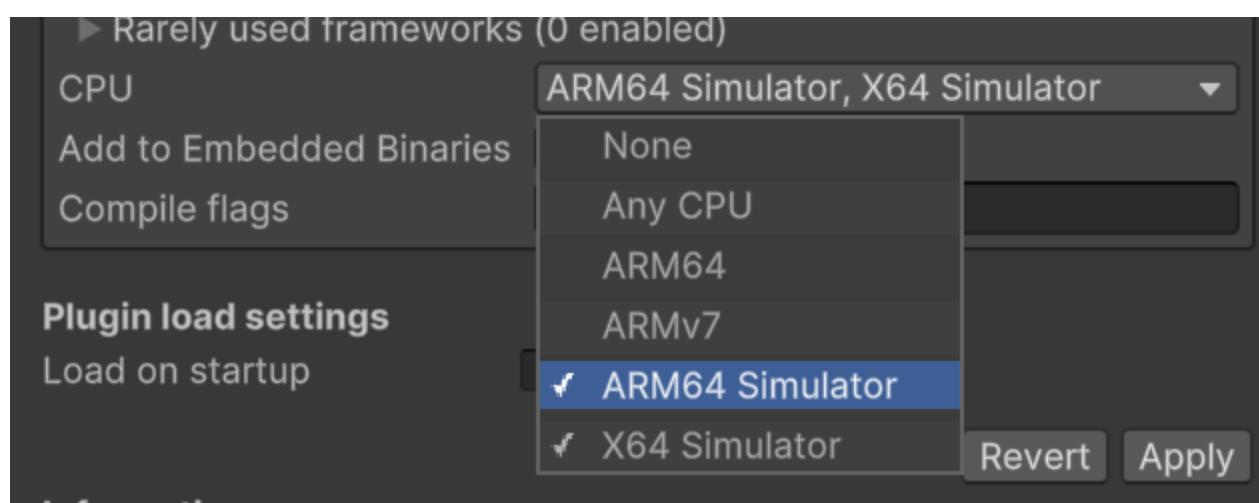
location	build destination	archs	meta settings
AppstockSDKForUnity.framework	generic/platform=iOS	arm64	ARM64
AppstockSDKForUnity_Sim.framework	generic/platform=iOS Simulator	x64, arm64	X64

The simulator version is only marked as x64 compatible due to Unity 2021.3 LTS not having arm64 simulator flag in serialization version 2 of plugin meta files that it uses.



If you are using Unity 6, [X64](#) translates to [X64 Simulator](#).

You may want to tick [ARM64 Simulator](#) as well and apply the changes once the package is imported.



SDK Initialization

(i) TIP

Do this once, before attempting to load any ads.

Call [InitializeSdk](#) and pass your partner key.

You might find it useful to wrap this call in a dedicated [MonoBehaviour](#) to be invoked from [Start](#) -- (see [Order of execution for event functions](#)) -- once attached to some object on the scene.

"Banner" sample provides such a demo:

```
using System;
using AppstockSDK.Api;
using UnityEngine;

namespace AppstockSDK.Demo.Banner
{
    public class SdkInitializer : MonoBehaviour
    {
        // Start is called before the first frame update
        private void Start()
        {
            Debug.Log($"{DateTime.Now:0} Attempting to init SDK...");  
Appstock.InitializeSdk("appstock-demo");
        }
    }
}
```

Banner Ad

NOTE

Make sure you've done [SDK Initialization](#) before attempting to load any ads.

Use [BannerAd](#) to load and display a banner.

TIP

You can find a functional code in ["Banner" sample](#).

Declare variable

[BannerAd](#) implements [IDisposable](#). Calling [Dispose\(\)](#) immediately destroys the respective View -- i.e. removes the banner from the screen.

WARNING

Losing the reference to [BannerAd](#) instance without calling [Dispose\(\)](#) may result in a banner being stuck on screen for the remainder of the app's lifecycle.

Thus you must keep a reference in some relatively persistent variable.

For example, an i-var on [MonoBehaviour](#).

```
using System;
using System.Collections;
using AppstockSDK.Api;
using UnityEngine;

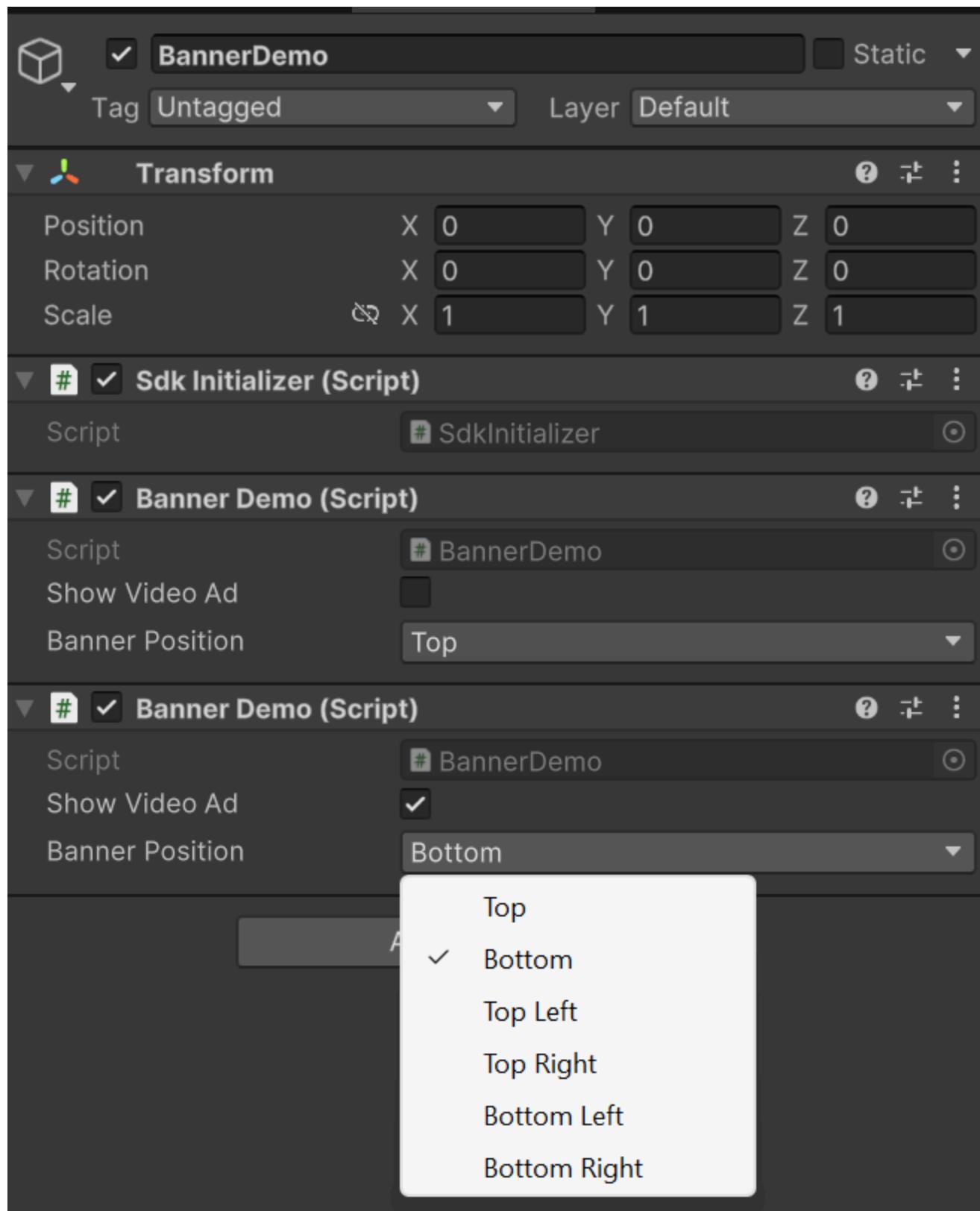
(nullable enable

namespace AppstockSDK.Demo.Banner
{
    [RequireComponent(typeof(SdkInitializer))]
    public class BannerDemo : MonoBehaviour
    {
        [SerializeField] private bool showVideoAd;
        public AnchoredAdPosition bannerPosition;
```

```
private IBannerAd? _adUnit;
```

For info on SdkInitializer component see [SDK Initialization](#).

The other two properties -- `showVideoAd` and `bannerPosition` let us customize the position and content of the banner in editor (on scene).



Instantiation

Pass desired [AdSize](#) into the constructor followed by other parameters.

```
_adUnit = showVideoAd  
? new BannerAd(new(320, 250))
```

```

{
    PlacementID = "8",
    AdUnitFormat = AdFormat.Video,
    AnchoredPosition = bannerPosition,
    AdPosition = bannerPosition.ToAdPosition(),
}
: new BannerAd(new(320, 250))
{
    PlacementID = "4",
    AnchoredPosition = bannerPosition,
    AdPosition = bannerPosition.ToAdPosition(),
};

```

Loading the Ad

Once all properties are set, call [LoadAd\(\)](#).

```
_adUnit.LoadAd();
```

Listening to events

[BannerAd](#) exposes few events that may or may not be of interest to you.

Relatively important may be [OnAdFailed](#).

In the sample the script subscribes to all events and logs whenever they are fired.

```

SubscribeToEvents(_adUnit);
_adUnit.LoadAd();

private void SubscribeToEvents(IBannerAd adUnit)
{
    adUnit.OnAdLoaded += OnAdUnitLoaded;
    adUnit.OnAdFailed += OnAdUnitFailed;
    adUnit.OnAdClicked += OnAdUnitClicked;
    adUnit.OnAdClosed += OnAdUnitClosed;
}

private void OnAdUnitLoaded()
{
    Debug.Log($"{DateTime.Now:O} (video: {showVideoAd}) Ad Loaded.");
}
```

```

private void OnAdUnitFailed(AdError? adError)
{
    Debug.LogError($"[{DateTime.Now:0}] (video: {showVideoAd}) Ad Failed: {adError?.Message}.");
}

private void OnAdUnitClicked() => Debug.Log($"[{DateTime.Now:0}] (video: {showVideoAd}) Ad Clicked.");

private void OnAdUnitClosed()
{
    Debug.Log($"[{DateTime.Now:0}] (video: {showVideoAd}) Ad Closed.");
}

```

Hiding the banner

Use [Hide\(\)](#) / [Show\(\)](#) to (temporarily?) change banner's visibility without destroying the view completely.

```

public void SetHidden(bool hidden)
{
    if (_adUnit is null)
    {
        return;
    }
    if (hidden)
    {
        _adUnit.Hide();
    }
    else
    {
        _adUnit.Show();
    }
}

```

Destroying the banner

Unsubscribe from events, call [Dispose\(\)](#) and clear the reference i-var.

```

private void UnsubscribeFromEvents(IBannerAd adUnit)
{
    adUnit.OnAdLoaded -= OnAdUnitLoaded;
    adUnit.OnAdFailed -= OnAdUnitFailed;
}

```

```
adUnit.OnAdClicked -= OnAdUnitClicked;
adUnit.OnAdClosed -= OnAdUnitClosed;
}
```

```
public void DropAdUnit()
{
    if (_adUnit is null)
    {
        return;
    }
    UnsubscribeFromEvents(_adUnit);
    _adUnit.Dispose();
    _adUnit = null;
}
```

Interstitial Ad

i NOTE

Make sure you've done [SDK Initialization](#) before attempting to load any ads.

Use [InterstitialAd](#) to load and display an interstitial.

i TIP

You can find a functional code in ["Interstitial" sample](#).

Declare variable

[InterstitialAd](#) implements [IDisposable](#).

[Dispose\(\)](#) severs the event chain (your callbacks will no longer be called) and lets the engine free the resources (e.g. held by underlying `AndroidJavaObject`).

Calling [Dispose\(\)](#) before losing the reference might have performance benefits.

Thus we shall keep a reference in some relatively persistent variable.

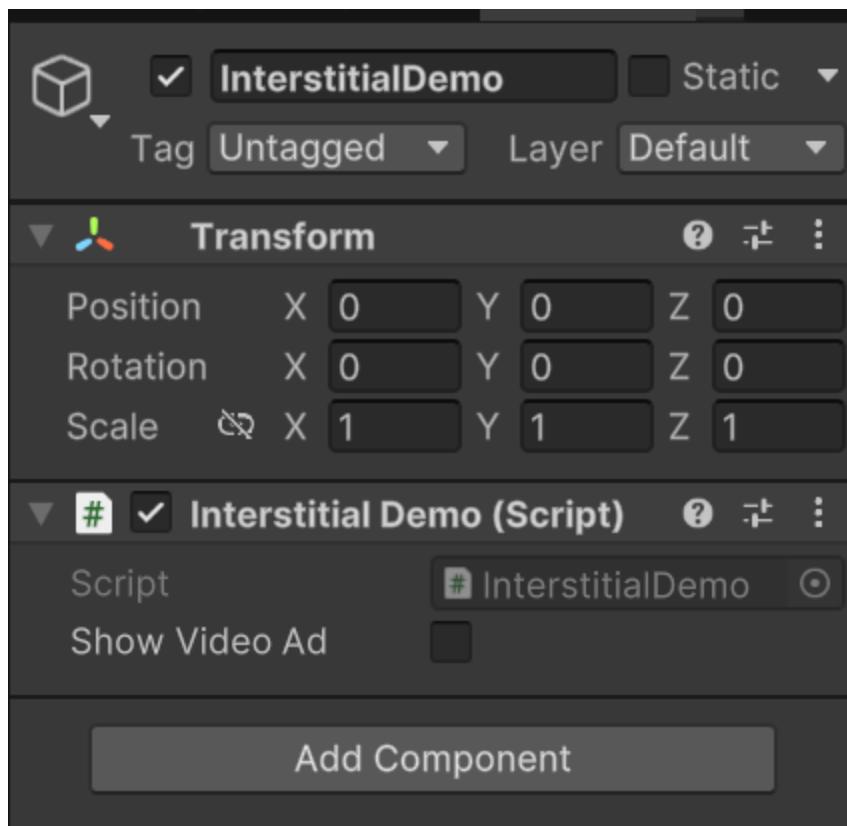
For example, an i-var on [MonoBehaviour](#).

```
using System;
using System.Collections;
using AppstockSDK.Api;
using UnityEngine;

(nullable enable

namespace AppstockSDK.Demo.Interstitial
{
    public class InterstitialDemo : MonoBehaviour
    {
        [SerializeField] private bool showVideoAd;
        private IInterstitialAd? _adUnit;
```

The other property -- `showVideoAd` lets us customize the content of the interstitial in editor (on scene).



Instantiation

Call the constructor and set other parameters.

```
_adUnit = showVideoAd  
    ? new InterstitialAd()  
    {  
        PlacementID = "7",  
        AdUnitFormats = new []{ AdFormat.Video },  
    }  
    : new InterstitialAd()  
    {  
        PlacementID = "5",  
    };
```

Loading the Ad

Once all properties are set, call [LoadAd\(\)](#).

```
_adUnit.LoadAd();
```

Listening to events

[InterstitialAd](#) exposes few events.

[OnAdLoaded](#) is useful to know you can call [Show\(Action?\)](#).

[OnAdFailed](#) and [OnAdClosed](#) are useful to dispose of the no-longer-useful ad unit.

In the sample the script subscribes to all events and logs whenever they are fired.

```
SubscribeToEvents(_adUnit);
_adUnit.LoadAd();

private void SubscribeToEvents(IInterstitialAd adUnit)
{
    adUnit.OnAdLoaded += OnAdUnitLoaded;
    adUnit.OnAdDisplayed += OnAdUnitDisplayed;
    adUnit.OnAdFailed += OnAdUnitFailed;
    adUnit.OnAdClicked += OnAdUnitClicked;
    adUnit.OnAdClosed += OnAdUnitClosed;
}

private void OnAdUnitLoaded()
{
    Debug.Log($"[{DateTime.Now:0}] Ad Loaded.");
    _adUnit?.Show();
}

private void OnAdUnitFailed(AdError? adError)
{
    Debug.LogError($"[{DateTime.Now:0}] Ad Failed: {adError?.Message}");
    DropAdUnit();
}

private void OnAdUnitDisplayed() => Debug.Log($"[{DateTime.Now:0}] Ad Displayed.");
private void OnAdUnitClicked() => Debug.Log($"[{DateTime.Now:0}] Ad Clicked.");

private void OnAdUnitClosed()
{
    Debug.Log($"[{DateTime.Now:0}] Ad Closed.");
    DropAdUnit();
}
```

Destroying the ad unit

Unsubscribe from events, call [Dispose\(\)](#) and clear the reference i-var.

```
private void UnsubscribeFromEvents(IIInterstitialAd adUnit)
{
    adUnit.OnAdLoaded -= OnAdUnitLoaded;
    adUnit.OnAdDisplayed -= OnAdUnitDisplayed;
    adUnit.OnAdFailed -= OnAdUnitFailed;
    adUnit.OnAdClicked -= OnAdUnitClicked;
    adUnit.OnAdClosed -= OnAdUnitClosed;
}

private void DropAdUnit()
{
    if (_adUnit is null)
    {
        return;
    }
    UnsubscribeFromEvents(_adUnit);
    _adUnit.Dispose();
    _adUnit = null;
}
```

Rewarded Ad

NOTE

Make sure you've done [SDK Initialization](#) before attempting to load any ads.

Use [RewardedAd](#) to load and display an rewarded.

TIP

You can find a functional code in ["Rewarded" sample](#).

Declare variable

[RewardedAd](#) implements [IDisposable](#).

[Dispose\(\)](#) severs the event chain (your callbacks will no longer be called) and lets the engine free the resources (e.g. held by underlying `AndroidJavaObject`).

Calling [Dispose\(\)](#) before losing the reference might have performance benefits.

Thus we shall keep a reference in some relatively persistent variable.

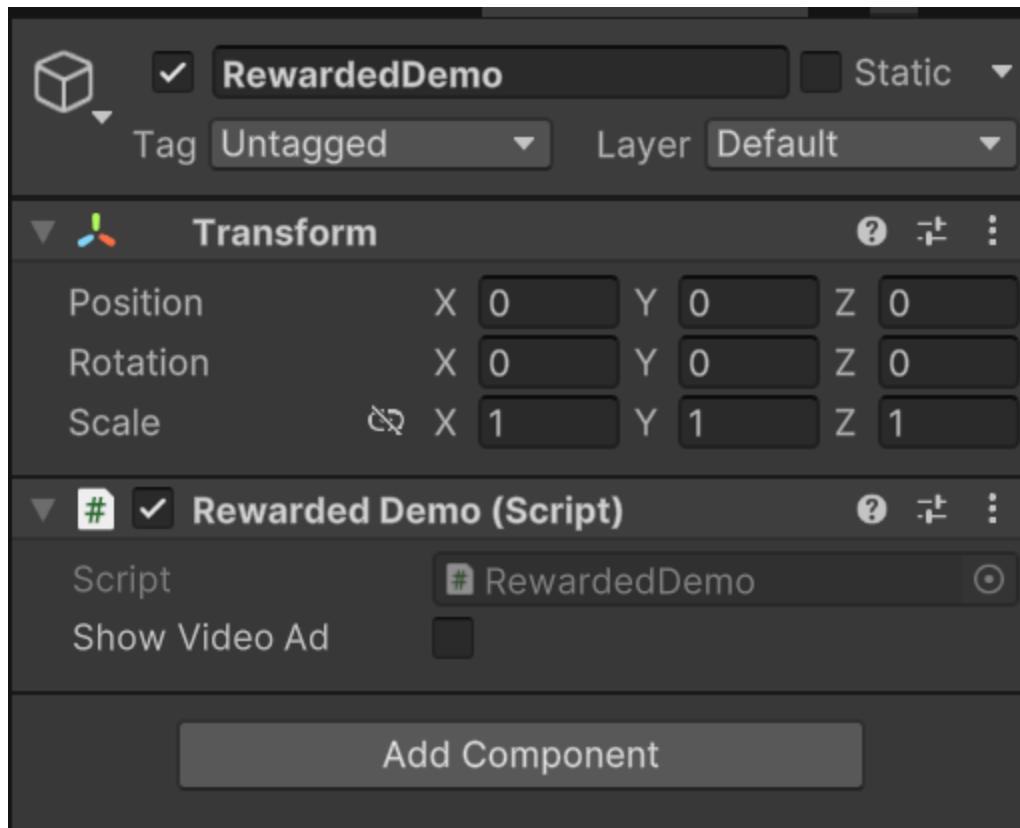
For example, an i-var on [MonoBehaviour](#).

```
using System;
using System.Collections;
using AppstockSDK.Api;
using UnityEngine;

(nullable enable

namespace AppstockSDK.Demo.Rewarded
{
    public class RewardedDemo : MonoBehaviour
    {
        [SerializeField] private bool showVideoAd;
        private IRewardedAd? _adUnit;
```

The other property -- `showVideoAd` lets us customize the content of the rewarded in editor (on scene).



Instantiation

Call the constructor and set other parameters.

```
_adUnit = new RewardedAd()  
{  
    PlacementID = showVideoAd ? "16" : "12",  
};
```

Loading the Ad

Once all properties are set, call [LoadAd\(\)](#).

```
_adUnit.LoadAd();
```

Listening to events

[RewardedAd](#) exposes few events.

[OnAdLoaded](#) is useful to know you can call [Show\(Action?\)](#).

[OnAdFailed](#) and [OnAdClosed](#) are useful to dispose of the no-longer-useful ad unit.

[OnReward](#) is important to award users the bonuses.

In the sample the script subscribes to all events and logs whenever they are fired.

```
SubscribeToEvents(_adUnit);
_adUnit.LoadAd();

private void SubscribeToEvents(IRewardedAd adUnit)
{
    adUnit.OnAdLoaded += OnAdUnitLoaded;
    adUnit.OnAdDisplayed += OnAdUnitDisplayed;
    adUnit.OnAdFailed += OnAdUnitFailed;
    adUnit.OnAdClicked += OnAdUnitClicked;
    adUnit.OnAdClosed += OnAdUnitClosed;
    adUnit.OnReward += OnAdUnitRewarded;
}

private void OnAdUnitLoaded()
{
    Debug.Log($"[{DateTime.Now:0}] Ad Loaded.");
    _adUnit?.Show();
}

private void OnAdUnitFailed(AdError? adError)
{
    Debug.LogError($"[{DateTime.Now:0}] Ad Failed: {adError?.Message}.");
    DropAdUnit();
}

private void OnAdUnitDisplayed() => Debug.Log($"[{DateTime.Now:0}] Ad Displayed.");
private void OnAdUnitClicked() => Debug.Log($"[{DateTime.Now:0}] Ad Clicked.");

private void OnAdUnitClosed()
{
    Debug.Log($"[{DateTime.Now:0}] Ad Closed.");
    DropAdUnit();
}
private void OnAdUnitRewarded(AdReward? adReward) => Debug.Log($"[{DateTime.Now:0}] Ad Rewarded: {adReward}.");
```

Destroying the ad unit

Unsubscribe from events, call [Dispose\(\)](#) and clear the reference i-var.

```
private void UnsubscribeFromEvents(IRewardedAd adUnit)
{
    adUnit.OnAdLoaded -= OnAdUnitLoaded;
    adUnit.OnAdDisplayed -= OnAdUnitDisplayed;
    adUnit.OnAdFailed -= OnAdUnitFailed;
    adUnit.OnAdClicked -= OnAdUnitClicked;
    adUnit.OnAdClosed -= OnAdUnitClosed;
    adUnit.OnReward -= OnAdUnitRewarded;
}
```

```
private void DropAdUnit()
{
    if (_adUnit is null)
    {
        return;
    }
    UnsubscribeFromEvents(_adUnit);
    _adUnit.Dispose();
    _adUnit = null;
}
```

Introduction to Native Ads

What?

Here is an excerpt from [OpenRTB Dynamic Native Ads API Specification Version 1.2](#).

Native advertising is an online advertising method in which the advertiser attempts to gain attention by providing content in the context of the user's experience. Native ad formats match both the form and function of the user experience in which it is placed. This is in contrast to traditional banner or interstitials ads, which are displayed in a separate space of predefined and universal size, without regard to their surroundings.

What again?

The ads that have no 'predefined form', but rather a set of pieces you make look like a natural part of your application.

Here is an example of data you might receive:

Time	Pid	Tid	Priority	Tag	Message
2024/12/19 10:03:07.266	19799	19850	Warn	Unity	[2024-12-19T10:03:07.1993168-05:00] Ad Loading status: Success
2024/12/19 10:03:07.310	19799	19850	Info	Unity	[2024-12-19T10:03:07.3101450-05:00] NativeAd Loaded
2024/12/19 10:03:07.310	19799	19850	Info	Unity	- Titles[0].Text: Revolutionize Ad Management: Own Your Data-Driven Ad Exchange
2024/12/19 10:03:07.310	19799	19850	Info	Unity	- Images[0].ImageType: Main (3)
2024/12/19 10:03:07.310	19799	19850	Info	Unity	- Images[0].URL: https://appstock-cdn.mobilesdk.io/native-main.png
2024/12/19 10:03:07.310	19799	19850	Info	Unity	- Images[1].ImageType: Icon (1)
2024/12/19 10:03:07.310	19799	19850	Info	Unity	- Images[1].URL: https://appstock-cdn.mobilesdk.io/native-ico.png
2024/12/19 10:03:07.310	19799	19850	Info	Unity	- DataObjects[0].DataType: Description (2)
2024/12/19 10:03:07.310	19799	19850	Info	Unity	- DataObjects[0].Value: Unlock the power of programmatic advertising with our customizable white-label solution. Optimize revenue streams effortlessly.
2024/12/19 10:03:07.310	19799	19850	Info	Unity	- DataObjects[1].DataType: CallToAction (12)
2024/12/19 10:03:07.310	19799	19850	Info	Unity	- DataObjects[1].Value: Learn More
2024/12/19 10:03:07.310	19799	19850	Info	Unity	- DataObjects[2].DataType: Sponsored (1)
2024/12/19 10:03:07.310	19799	19850	Info	Unity	- DataObjects[2].Value: Sponsored by Appstock
2024/12/19 10:03:07.310	19799	19850	Info	Unity	- DataObjects[3].DataType: DisplayURL (11)
2024/12/19 10:03:07.310	19799	19850	Info	Unity	- DataObjects[3].Value: https://app-stock.com
2024/12/19 10:03:07.310	19799	19850	Info	Unity	- Title: Revolutionize Ad Management: Own Your Data-Driven Ad Exchange
2024/12/19 10:03:07.310	19799	19850	Info	Unity	- imageUrl: https://appstock-cdn.mobilesdk.io/native-main.png
2024/12/19 10:03:07.310	19799	19850	Info	Unity	- iconUrl: https://appstock-cdn.mobilesdk.io/native-ico.png
2024/12/19 10:03:07.310	19799	19850	Info	Unity	- SponsoredBy: Sponsored by Appst
2024/12/19 10:03:07.957	19799	19923	Info	AudioTrack	isLongTimezoneData zoen date time 6 Seconds

As you can see, it can be given pretty much any reasonable shape.

Few examples:

- A message via in-app communication system.
 - chat/email/forum message.
 - post on a questing board.
 - entry within in-world 'news' feed.
- Content for in-world 2D/3D ad box.
 - If you have a city-like location within a game, placing a few ad boxes around might make it more realistic.
 - In a 2D platformer you might replace some unreachable tiles with an ad container.

Why?

- The immersion is less disrupted:
 - The style of ad matches the rest of the app:
 - fonts
 - color scheme
 - layout (both locations and sizes of elements)
 - User input is not interrupted (compared to interstitials).
- You do not lose limited screen space (compared to banners).

How?

- Build a request describing what elements you can display.
 - see [Building Native Ad Request](#)
- Call [LoadAd\(Action<INativeAd?, AdError?>\)](#).
- Apply the content from [INativeAd](#) to the [GameObject](#) on scene.
 - see [Applying Native Ad Response](#)

Building Native Ad Request

NOTE

Make sure you've done [SDK Initialization](#) before attempting to load any ads.

Long story short

- Get a populated [AdUnitData](#).
- Call an extension method [BuildAdLoader\(AdUnitData\)](#).

```
_nativeAdLoader = nativeConfig.BuildAdLoader();
_nativeAdLoader.LoadAd(OnAdLoadResult);
```

TIP

The resulting [INativeAdLoader](#) has [LoadAd\(Action<INativeAd?, AdError?>\)](#) you needed.

Now you can get back to step 2 of [How to do Native Ads](#).

NativeConfigPreset asset

[AdUnitData](#) has [SerializableAttribute](#).

Which means you can have it edited via Unity Editor.

Most of the data is pretty static, so the logical thing to do is wrap [AdUnitData](#) into a [ScriptableObject](#).

The "[Native](#)" sample has a [NativeConfigPreset](#) for that:

```
using System;
using AppstockSDK.Api;
using UnityEngine;
using AppstockSDK.Api.Native.Data.Request;

namespace AppstockSDK.Demo.Native
{
    [Serializable]
    [CreateAssetMenu(fileName = "NativeConfigPreset", menuName = "AppstockSDK/Native
```

```

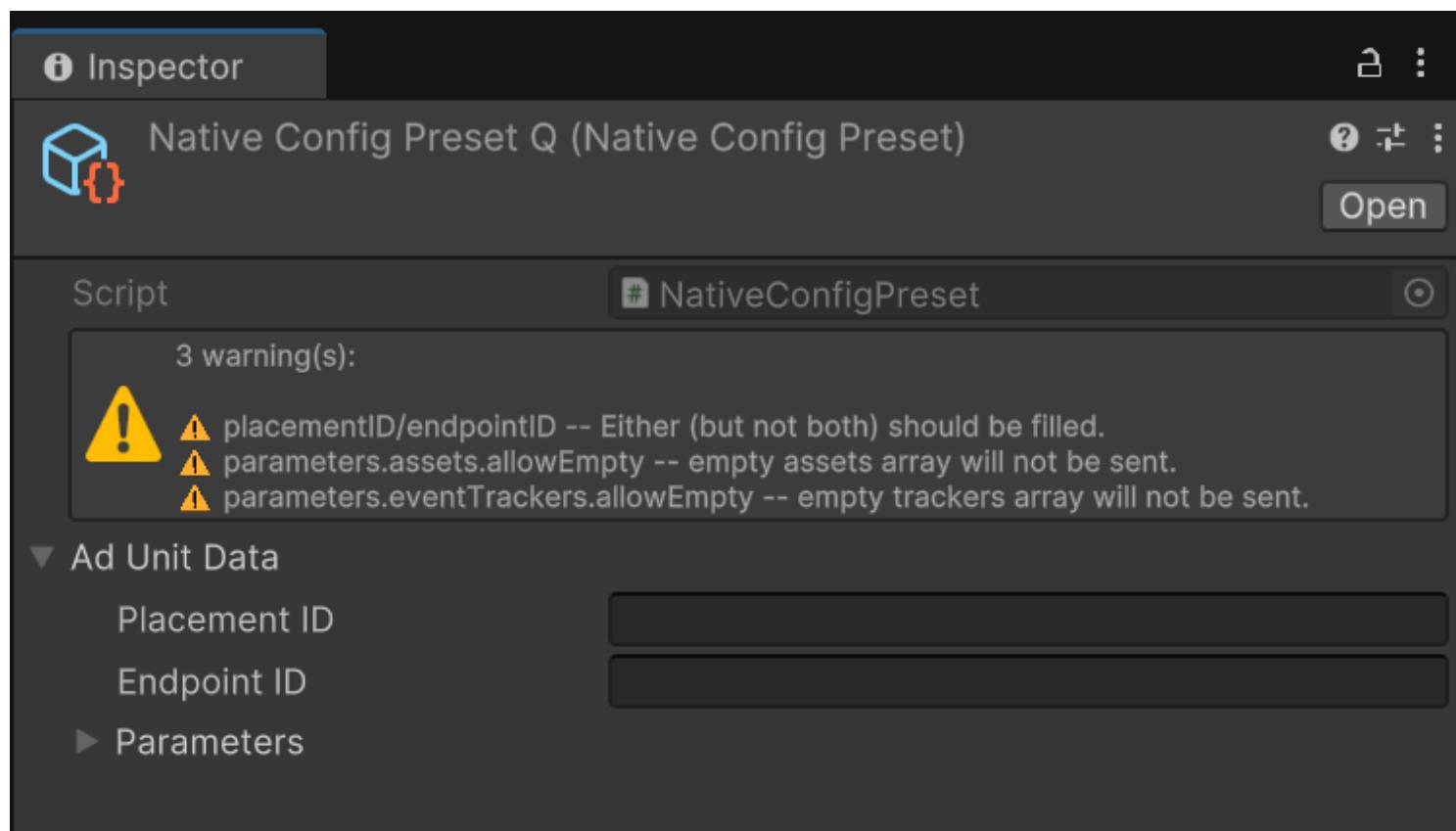
Config Preset")]
public class NativeConfigPreset : ScriptableObject
{
    public ConfigWarnings warnings;
    public AdUnitData adUnitData;

    public INativeAdLoader BuildAdLoader()
        => adUnitData.BuildAdLoader();

}
}

```

Once imported, you can create assets of this class via respective menu entry (highlighted above).



[ConfigWarnings](#) serves as an effectively-readonly container to display any errors directly in inspector during the editing process.

Placement/Endpoint ID

Fill in [placementID](#) or [endpointID](#) with a value generated on the Appstock SDK platform's UI.

Ad Parameters

Fill in the [Parameters](#) to the best of your abilities.

Script

NativeConfigPreset



2 warning(s):



- ⚠ parameters.assets.allowEmpty -- empty assets array will not be sent.
- ⚠ parameters.eventTrackers.allowEmpty -- empty trackers array will not be sent.

▼ Ad Unit Data

Placement ID

9

Endpoint ID

▼ Parameters

▼ Assets

Allow Empty



▼ Titles

0

List is empty



0

▼ Images

List is empty



0

▼ Data

List is empty



▼ Event Trackers

Allow Empty



▼ Elements

0

List is empty



Context Type

None



Context Sub Type

None



Placement Type

None



Placement Count



0

Sequence



0

Asset Url Support	None
D Url Support	None
Privacy	None
Ext	None

i TIP

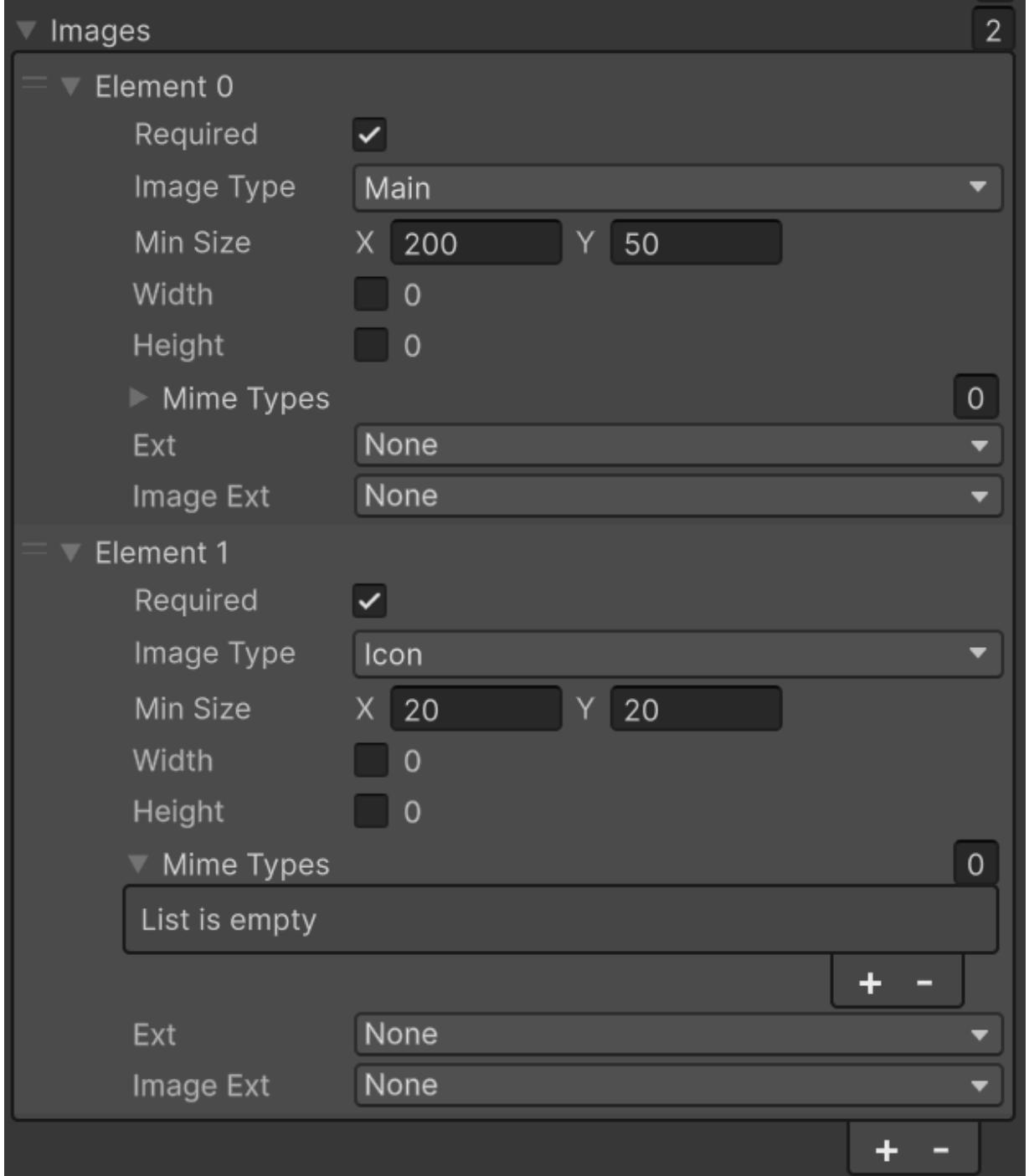
Both [AdUnitData](#) and [Parameters](#) are [structs](#).

This allows you to reuse a single [NativeConfigPreset](#) asset for different placements or contexts if needed.

Ad Assets

[assets](#) (of type [Assets](#)) has 3 homogeneous arrays for each type of assets:

Asset Type	Config Samples				
AssetTitle[]	<div style="border: 1px solid #ccc; padding: 5px;"> ▼ Titles 1 <div style="border: 1px solid #ccc; padding: 5px; margin-top: 5px;"> = ▼ Element 0 <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">Required</td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> <tr> <td>Length</td> <td style="text-align: center;">90</td> </tr> </table> </div> </div>	Required	<input checked="" type="checkbox"/>	Length	90
Required	<input checked="" type="checkbox"/>				
Length	90				

Asset Type	Config Samples
Asset Image[]	 <p>▼ Images [2]</p> <p>= ▼ Element 0</p> <p>Required <input checked="" type="checkbox"/></p> <p>Image Type Main</p> <p>Min Size X 200 Y 50</p> <p>Width 0</p> <p>Height 0</p> <p>► Mime Types [0]</p> <p>Ext None</p> <p>Image Ext None</p> <p>= ▼ Element 1</p> <p>Required <input checked="" type="checkbox"/></p> <p>Image Type Icon</p> <p>Min Size X 20 Y 20</p> <p>Width 0</p> <p>Height 0</p> <p>▼ Mime Types [0]</p> <p>List is empty</p> <p>+ -</p> <p>Ext None</p> <p>Image Ext None</p> <p>+ -</p>

Asset Type	Config Samples
AssetData[]	<p>The screenshot shows a configuration editor for an AssetData array. It displays four elements, each with configuration options:</p> <ul style="list-style-type: none">Element 0: Required is checked. Data Type is set to "Description". Length is 0. Ext is None. Data Ext is None.Element 1: Required is checked. Data Type is set to "Call To Action". Length is 0. Ext is None. Data Ext is None.Element 2: Required is checked. Data Type is set to "Sponsored". Length is 0. Ext is None. Data Ext is None.Element 3: Required is unchecked. Data Type is set to "Display URL". Length is 0. <p>The editor has a toolbar at the bottom with a plus sign (+) and a minus sign (-).</p>

NOTE

If all of the array are null or empty, the combined `assets` field will not be written to in native library (by default) and the warning is displayed in inspector.

`allowEmpty` lets you override this behaviour and intentionally pass the empty array down into native library (rather than keep default which most likely is `null`).

Ext Slots

Some data structures expose public fields of type [ExtSlot](#).

See [Ext Slot](#) page for more info.

Using data from asset to load ad

TIP

You can find a functional code in ["Native" sample](#).

Declaring variables

Expose `NativeConfigPreset` inspectable variable on the relevant [MonoBehaviour](#).

Prepare [INativeAdLoader](#) private variable.

```
#nullable enable

namespace AppstockSDK.Demo.Native
{
    public class NativeDemo : MonoBehaviour
    {
        [SerializeField] private NativeConfigPreset? nativeConfig;
        [SerializeField] private TMP_Text? text;
        private INativeAdLoader? _nativeAdLoader;
        private INativeAd? _nativeAd;
```

`text` is the sample is used for displaying the content of [INativeAd](#). It is for illustration purposes only.

`_nativeAd` will be used later (once received).

Loading the ad

Build the ad loader.

```
_nativeAdLoader = nativeConfig.BuildAdLoader();
```

In this case the convenience method by scriptable object was used.

```
public INativeAdLoader BuildAdLoader()  
=> adUnitData.BuildAdLoader();
```

If you need to adjust the data before building the loader, use a local variable, e.g.:

```
AdUnitData dataCopy = nativeConfig.adUnitData;  
dataCopy.placementID = "99";  
dataCopy.parameters.sequence = 17;  
_nativeAdLoader = dataCopy.BuildAdLoader();
```

Load the ad.

```
_nativeAdLoader.LoadAd(OnAdLoadResult);
```

The signature of `OnAdLoadResult` callback method is:

```
private void OnAdLoadResult(INativeAd? nativeAd, AdError? status)
```

If it failed to load, `nativeAd` will be null and `status` may contain an error message.

⚠️ WARNING

Do not check if `status` is null to determine if ad has loaded.

`status` may contain success message.

If the ad did successfully load, `nativeAd` will be not null.

💡 TIP

For applying the received data please continue reading [Applying Native Ad Response](#).

Applying Native Ad Response

```
[INFO] Ad loading status: Success
NativeAd Loaded
- Titles[0].Text: Revolutionize Ad Management: Own Your Data-Driven Ad Exchange
- Images[0].ImageType: Main (3)
- Images[0].URL: https://appstock-cdn.mobilesdk.io/native-main.png
- Images[1].ImageType: Icon (1)
- Images[1].URL: https://appstock-cdn.mobilesdk.io/native-ico.png
- DataObjects[0].DataType: Description (2)
- DataObjects[0].Value: Unlock the power of programmatic advertising with our customizable white-label solution. Optimize revenue streams effor
- DataObjects[1].DataType: CallToAction (12)
- DataObjects[1].Value: Learn More
- DataObjects[2].DataType: Sponsored (1)
- DataObjects[2].Value: Sponsored by Appstock
- DataObjects[3].DataType: DisplayURL (11)
- DataObjects[3].Value: https://app-stock.com
- Title: Revolutionize Ad Management: Own Your Data-Driven Ad Exchange
- ImageUrl: https://appstock-cdn.mobilesdk.io/native-main.png
- IconUrl: https://appstock-cdn.mobilesdk.io/native-ico.png
- SponsoredBy: Sponsored by Appstock
- CallToAction: Learn More
```

This page explains how to make use of [INativeAd](#).

On how to build the request and load the ad see [Building Native Ad Request](#).

i **TIP**

You can find a functional code in ["Native" sample](#).

Where we left off

As was mentioned on the previous page, we have 3 (still relevant) i-vars.

```
[SerializeField] private TMP_Text? text;
private INativeAdLoader? _nativeAdLoader;
private INativeAd? _nativeAd;
```

We will use `text` to dump all the data from our [INativeAd](#) -- for illustration purposes.

In the real app you will populate your own GUI (or 2D/3D) components.

`_nativeAd` still has the default value (null).

`_nativeAdLoader` still has the loader that was used to start loading the ad.

```
_nativeAdLoader.LoadAd(OnAdLoadResult);
```

Logging helper

`LogToUI` method is a simple wrapper to add messages both to UI and debug console:

```
private void LogToUI(string message, LogType logType = LogType.Log)
{
    if (text != null)
    {
        text.text += "\n" + message;
    }
    Debug.LogFormat(logType, LogOption.None, gameObject, "[{0:0}] {1}",
DateTime.Now, message);
}
```

Ad Load Callback

First, check if we did get the actual ad.

```
_nativeAdLoader = null;
if (nativeAd == null)
{
    LogToUI($"Failed to load ad: {status?.Message}", LogType.Error);
    return;
}
```

Save a reference to the ad.

```
_nativeAd = nativeAd;
```

i NOTE

`INativeAd` extends `IDisposable`. Calling `Dispose()` releases native objects and stops impression tracking.

You should dispose of native ad once done, but preserve a reference until that point.

Event handling

Subscribing to events

```
SubscribeToEvents(nativeAd);

private void SubscribeToEvents(INativeAd nativeAd)
{
    nativeAd.OnAdClicked += OnAdClicked;
    nativeAd.OnAdImpression += OnAdImpression;
    nativeAd.OnAdExpired += OnAdExpired;
}
```

Expiration handling

```
private void OnAdExpired()
{
    LogToUI("Ad Expired.");
    using (_nativeAd)
    {
        if (_nativeAd is not null)
        {
            UnsubscribeFromEvents(_nativeAd);
            _nativeAd.Dispose();
            _nativeAd = null;
        }
    }
}
```

Unsubscribing

```
private void UnsubscribeFromEvents(INativeAd nativeAd)
{
    nativeAd.OnAdClicked -= OnAdClicked;
    nativeAd.OnAdImpression -= OnAdImpression;
    nativeAd.OnAdExpired -= OnAdExpired;
}
```

Extracting all the things

```
private void UnsubscribeFromEvents(INativeAd nativeAd)
{
    nativeAd.OnAdClicked -= OnAdClicked;
    nativeAd.OnAdImpression -= OnAdImpression;
```

```
    nativeAd.OnAdExpired -= OnAdExpired;  
}
```

Iteration over typed asset collections

Use [foreach](#) to iterate over [Titles](#):

```
foreach (var nextTitle in nativeAd.Titles)  
{  
  
}
```

NOTE

[ITitleContent](#), [IImageContent](#) and [IDataContent](#) implement [IDisposable](#).

Calling [Dispose\(\)](#) allows the engine to free native resources sooner on some platforms.

See "Best practice" / "Garbage collection" section of [Call Java and Kotlin plug-in code from C# scripts](#) for details.

Since we no longer need titles, once we extract the strings, we will use [using](#) as recommended.

```
foreach (var nextTitle in nativeAd.Titles)  
{  
    using (nextTitle)  
    {  
  
    }  
}
```

Similar loops can be made for [Images](#) / [DataObjects](#).

Inside the loop(s) you can access all the properties exposed by (respective) asset type(s):

- [ITitleContent](#)
 - [Text](#)
- [IImageContent](#)
 - [ImageType](#)

- [URL](#)
- [IDataContent](#)
 - [DataType](#)
 - [Value](#)

You might want to use a [switch](#) over [ImageContentType](#) / [DataContentType](#) to determine which of your components (on scene) should handle current ad asset.

Convenience accessors

Few direct access [string](#) properties can be helpful to avoid filtering through all the assets (if you know what you are looking for).

- [Title](#)
- [ImageUrl](#)
- [IconUrl](#)
- [SponsoredBy](#)
- [CallToAction](#)

Enabling impression tracking

Call [RegisterView\(GameObject, IEnumerable<GameObject>?\)](#).

As a **container** pass the most relevant ancestor ([Transform](#)-wise) of ad elements.

As a **clickableObjects** -- [GameObject](#)s with attached colliders ([Collider](#) / [Collider2D](#)) or [Selectable](#) components.

```
nativeAd.RegisterView(gameObject, null);
```

Disposing of native ad

```
UnsubscribeFromEvents(_nativeAd);
_nativeAd.Dispose();
_nativeAd = null;
```

Used in [Expiration handling](#) but may also be needed when [GameObject](#) gets destroyed.

SDK Configuration

[ISdkProxy](#) provides few global configuration options.

[Sdk](#) property of [Appstock](#) can be used to get the instance of [ISdkProxy](#).

⚠️ WARNING

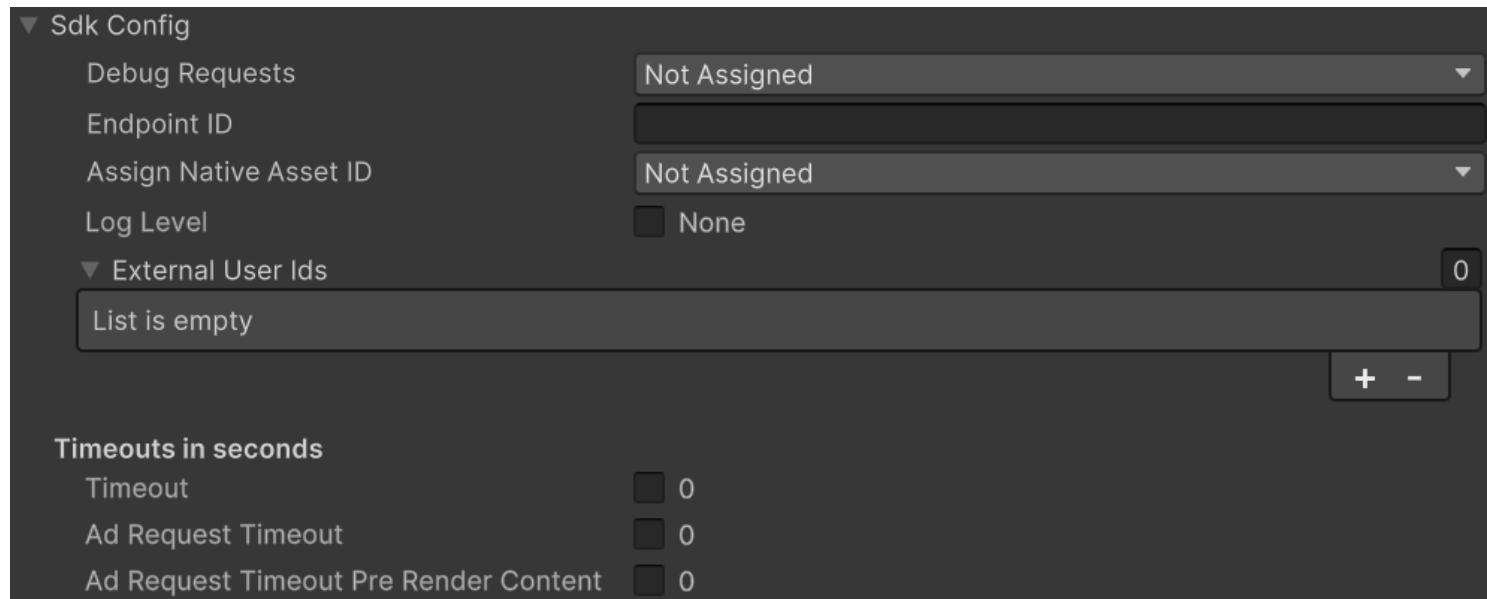
[ISdkProxy::ExternalUserIds](#) and [SdkConfig::externalUserIds](#) expose a potentially-deprecated property of native SDK library.

[ITargetingProxy::ExternalUserIds](#) / [TargetingData::externalUserIds](#) should be used instead in most cases.

See [Improving targeting / External User IDs](#).

Data-driven approach

[SdkConfig](#) is a data container -- with a [SerializableAttribute](#) -- for specifying settings via Unity Editor.



Applying the config

- Expose [SdkConfig](#) variable on your [MonoBehaviour](#)
 - Or put it inside some [ScriptableObject](#) and assign through that.
- Call extension method [Apply\(ISdkProxy, SdkConfig\)](#) on [Appstock.Sdk](#) and pass your [SdkConfig](#).

```
#nullable enable

namespace AppstockSDK.DevApp
{
    public class TargetingDemo : MonoBehaviour
    {
        public SdkConfig sdkConfig = new();
        public TargetingData targetingData = new();

        // Start is called before the first frame update
        private IEnumerator Start()
        {
            Debug.Log($"[{DateTime.Now:0}] Applying config...");
            Appstock.Sdk.Apply(sdkConfig);
        }
    }
}
```

 **TIP**

You can find a complete code in ["ConfigAndTargeting" sample](#).

Taking a config snapshot

[SdkConfigSnapshot](#) can retrieve all readable properties from [ISdkProxy](#).

```
var sdkConfigSnapshot = new SdkConfigSnapshot(Appstock.Sdk);
```

It can be serialized and logged into console

```
var snapshotJson = JsonUtility.ToJson(sdkConfigSnapshot, prettyPrint: true);
Debug.Log($"(snapshot) {snapshotJson}");
```

or compared to the expected config -- to log differences for later manual inspection.

```
var unequalFields = sdkConfigSnapshot.UnequalFields(sdkConfig).ToList();
if (unequalFields.Any())
{
    var configJson = JsonUtility.ToJson(sdkConfig, prettyPrint: true);
    Debug.Log($"(config) {configJson}");
    Debug.LogWarning($"[DIFF-FIELDS] ({unequalFields.Count}): {string.Join(",",
", unequalFields)}.");
}
else
```

```
{  
    Debug.Log("SDK config applied successfully.");  
}
```

Improving targeting

[ITargetingProxy](#) provides few global configuration options.

[Sdk](#) property of [Appstock](#) can be used to get the instance of [ITargetingProxy](#).

Data-driven approach

[TargetingData](#) is a data container -- with a [SerializableAttribute](#) -- for specifying settings via Unity Editor.

The screenshot shows the Targeting Data configuration panel in the Unity Editor. It includes sections for User, Application, and Regulations, each with various fields and dropdown menus. The User section contains fields for User Custom Data, Coordinate, and Keywords. The Application section contains fields for Domain, Publisher Name, and Store URL. The Regulations section contains a dropdown for Is Subject To COPPA.

Section	Setting	Value
User	User Custom Data	[Empty]
User	Coordinate	(0.00, 0.00)
Keywords	List	0
Keywords	Add	+
Keywords	Remove	-
External User Ids	List	0
External User Ids	Add	+
External User Ids	Remove	-
User (iOS)	User Ext Json	None
Application	Domain	[Empty]
Application	Publisher Name	[Empty]
Application	Store URL	[Empty]
Application (iOS)	Itunes ID	[Empty]
Application (iOS)	Source App	[Empty]
Regulations	Is Subject To COPPA	Not Assigned

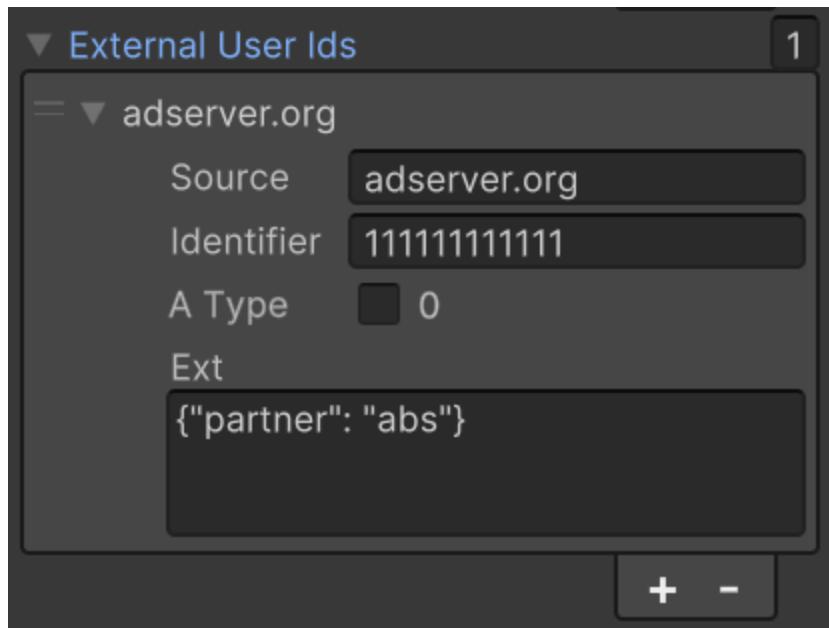
External User IDs

If you happen to know external ID of this user on other services, you can add them as [ExternalUserID](#) elements.

! WARNING

If you populate `ext`, make sure it is a valid [JSON object](#).

Other [JSON value types](#) are NOT supported.



Applying the data

- Expose [TargetingData](#) variable on your [MonoBehaviour](#)
 - Or put it inside some [ScriptableObject](#) and assign through that.
- Call extension method [Apply\(ITargetingProxy, TargetingData\)](#) on [Appstock.Sdk](#) and pass your [TargetingData](#).

```
#nullable enable

namespace AppstockSDK.DevApp
{
    public class TargetingDemo : MonoBehaviour
    {
        public SdkConfig sdkConfig = new();
        public TargetingData targetingData = new();

        // Start is called before the first frame update
```

```

private IEnumerator Start()
{
    Debug.Log($"[{DateTime.Now:0}] Applying config..."); 
    Appstock.Sdk.Apply(sdkConfig);

    Debug.Log($"[{DateTime.Now:0}] Attempting to init SDK..."); 
    Appstock.InitializeSdk("appstock-demo");

    Debug.Log($"[{DateTime.Now:0}] Letting SDK init to finish..."); 
    yield return new WaitForSeconds(1);

    Debug.Log($"[{DateTime.Now:0}] Applying targeting data..."); 
    Appstock.Targeting.Apply(targetingData);

```

i **TIP**

You can find a complete code in ["ConfigAndTargeting" sample](#).

Ext Slots

Some data structures expose public fields of type [ExtSlot](#).

See [Ext Slot](#) page for more info.

Taking a snapshot of active data

Extension method [TakeSnapshot\(ITargetingProxy\)](#) can retrieve all readable properties from [ITargetingProxy](#).

```
var targetingSnapshot = Appstock.Targeting.TakeSnapshot();
```

It can be serialized and logged into console

```
var snapshotJson = JsonUtilityToJson(targetingSnapshot, prettyPrint: true); 
Debug.Log($"{snapshot} {snapshotJson}");
```

or compared to the expected data -- to log differences for later manual inspection.

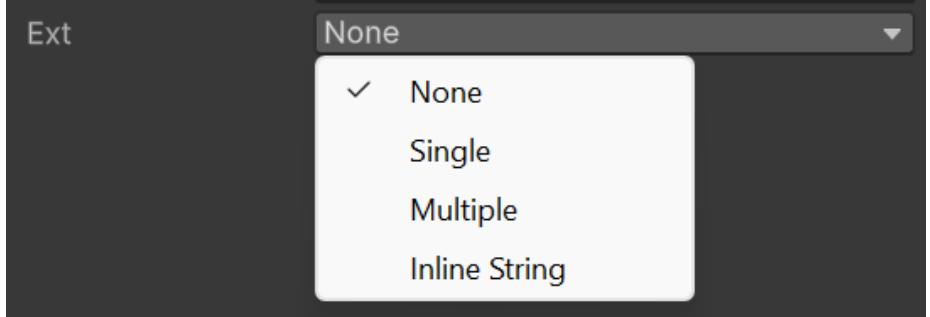
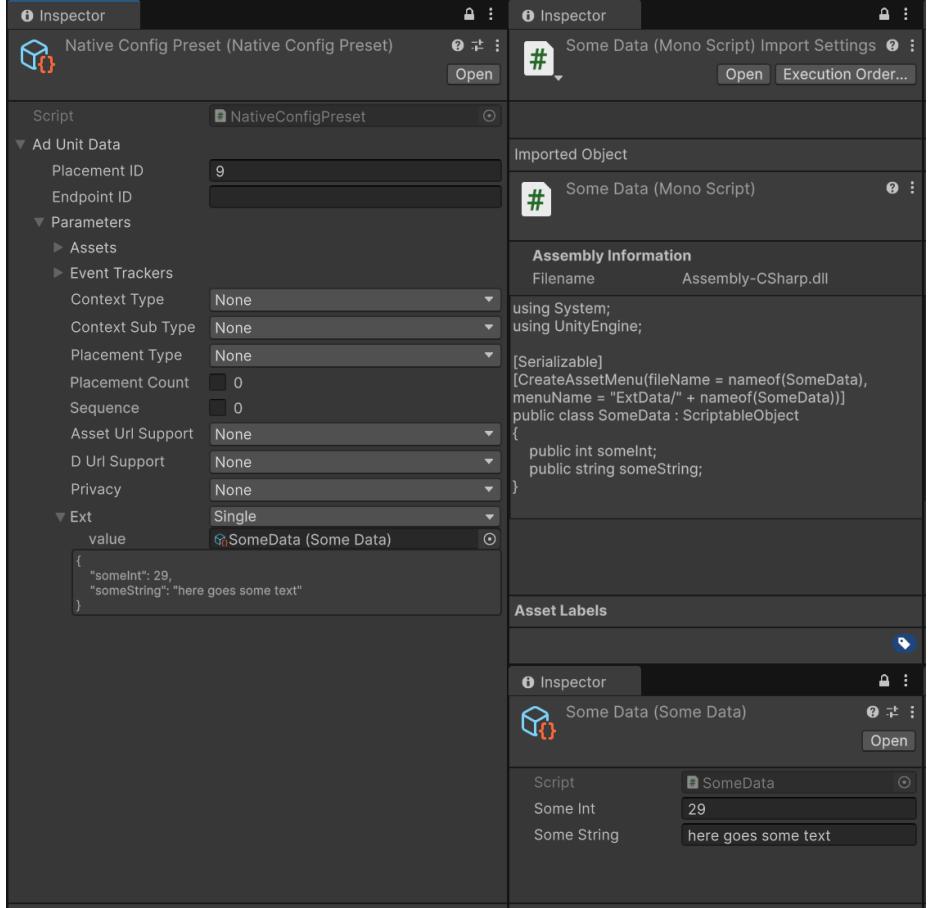
```
var unequalFields = targetingData.UnequalFields(targetingSnapshot, 
fieldsToIgnore: new[] 
{ 
    nameof(targetingData.userExtJson) // the ordering is not guaranteed
}
```

```
upon retrieval
}).ToList();
if (unequalFields.Any())
{
    var configJson = JsonUtility.ToJson(targetingData, prettyPrint: true);
    Debug.Log($"(config) {configJson}");
    Debug.LogWarning($"[DIFF-FIELDS] ({unequalFields.Count}): {string.Join(",",
", unequalFields)}.");
}
else
{
    Debug.Log("Targeting data applied successfully.");
}
```

Ext Slot

Some data structures expose public fields of type [ExtSlot](#).

Any JSON data is allowed inside.

Mode	Description	Screenshot
None	Default value. No content.	
Single	Object form. Accepts a single ScriptableObject asset. You can use any necessary structure for your data class. Has preview.	

Mode	Description	Screenshot
<u>Multiple</u>	<p>Array form.</p> <p>Accepts multiple ScriptableObject assets.</p> <p>You can use any necessary structure for your data class(-es).</p> <p>Has preview.</p>	
<u>Inline String</u>	<p>String form.</p> <p>Fill in with a valid JSON string.</p>	

Also provides implicit casting operators for all 3 cases:

- [implicit operator ExtSlot\(string?\)](#)
- [implicit operator ExtSlot\(ManagedObject?\)](#)
- [implicit operator ExtSlot\(ManagedObject\[\]?\)](#)

Samples

There are 5 samples provided with the package.

Sample name	Related topics
Banner	SDK Initialization and Banner Ad
Interstitial	Interstitial Ad
Rewarded	Rewarded Ad
Native	Native Ads
ConfigAndTargeting	SDK Configuration and Improved Targeting

You can find them in [Details panel](#) of [Package Manager window](#).

The screenshot shows the Unity Package Manager window with the 'Samples' tab selected. There are five entries listed:

- ConfigAndTargeting** 13.23 KB [Import](#)
Contains sample scene and scripts for SDK Configuration and Targeting parametrization
- Banner** 13.79 KB [Import](#)
Contains Banner Ad sample scene and scripts
- Interstitial** 11.86 KB [Import](#)
Contains Interstitial Ad sample scene and script
- Rewarded** 11.85 KB [Import](#)
Contains Rewarded Ad sample scene and script
- Native** 47.51 KB [Import](#)
Contains Native Ad sample scene and scripts

Namespace AppstockSDK.Android

Classes

[SdkEnums](#)

Exposes a collection of existing converters between managed and native enum values.

[SdkImp](#)

[ISdkImp](#) implementation for [Android](#).

Interfaces

[IJavaEnum](#)

Converter between managed and native enum types.

Interface IJavaEnum

Namespace: [AppstockSDK.Android](#)

Assembly: Appstock.Android.dll

Converter between managed and native enum types.

```
public interface IJavaEnum
```

Properties

Converter

Gets managed-to-native converter delegate.

```
Func<object, AndroidJavaObject?> Converter { get; }
```

Property Value

[Func<object>](#)

A delegate that can convert managed enum value to native one.

ConvertibleEnumValues

Gets convertible values of managed enum.

```
IEnumerable<object> ConvertibleEnumValues { get; }
```

Property Value

[IEnumerable<object>](#)

Managed enum values for which the name of native enum is known.

EnumType

Gets the type of managed enum.

```
Type EnumType { get; }
```

Property Value

[Type](#)

Managed enum type.

Reverter

Gets native-to-managed converter delegate.

```
Func<AndroidJavaObject, object?> Reverter { get; }
```

Property Value

[Func](#)<AndroidJavaObject, object>

A delegate that can convert native enum value to managed one.

Class SdkEnums

Namespace: [AppstockSDK.Android](#)

Assembly: Appstock.Android.dll

Exposes a collection of existing converters between managed and native enum values.

```
public static class SdkEnums
```

Inheritance

[object](#) ← SdkEnums

Inherited Members

[object.Equals\(object\)](#) , [object.Equals\(object, object\)](#) , [object.GetHashCode\(\)](#) ,
[object.GetType\(\)](#) , [object.MemberwiseClone\(\)](#) , [object.ReferenceEquals\(object, object\)](#) ,
[object.ToString\(\)](#)

Properties

JavaEnums

Get the converters.

```
public static IEnumerable<IJavaEnum> JavaEnums { get; }
```

Property Value

[IEnumerable](#)<[IJavaEnum](#)>

Collection of existing converters.

Class SdkImp

Namespace: [AppstockSDK.Android](#)

Assembly: Appstock.Android.dll

[ISdkImp](#) implementation for [Android](#).

```
public sealed class SdkImp : ISdkImp
```

Inheritance

[object](#) ← SdkImp

Implements

[ISdkImp](#)

Inherited Members

[object.Equals\(object\)](#) , [object.Equals\(object, object\)](#) , [object.GetHashCode\(\)](#) ,
[object.GetType\(\)](#) , [object.ReferenceEquals\(object, object\)](#) , [object.ToString\(\)](#)

Properties

SdkInitializer

Gets SDK Initializer object.

```
public ISdkInitializer SdkInitializer { get; }
```

Property Value

[ISdkInitializer](#)

Proxy for a static method in the native SDK library for a specific platform.

SdkProxy

Gets SDK proxy object.

```
public ISdkProxy SdkProxy { get; }
```

Property Value

[ISdkProxy](#)

Managed object that exposes global settings of native SDK.

TargetingProxy

Gets SDK targeting proxy object.

```
public ITargetingProxy TargetingProxy { get; }
```

Property Value

[ITargetingProxy](#)

Managed object that exposes targeting settings of native SDK.

Methods

CreateBanner(AdSize)

Creates a banner of specified size.

```
public IBannerAd CreateBanner(AdSize adSize)
```

Parameters

`adSize` [AdSize](#)

Size of the banner view.

Returns

[IBannerAd](#)

Managed object that exposes controls over native ad view.

CreateInterstitial()

Creates an interstitial ad unit.

```
public IInterstitialAd CreateInterstitial()
```

Returns

[IInterstitialAd](#)

Managed object that exposes controls over native interstitial ad unit.

CreateNativeAdLoader(AdUnitData)

Creates a loader for native ad.

```
public INativeAdLoader CreateNativeAdLoader(AdUnitData adUnitData)
```

Parameters

adUnitData [AdUnitData](#)

Serializable template for native ad request.

Returns

[INativeAdLoader](#)

Managed object that exposes controls over native ad loader.

CreateRewarded()

Creates a rewarded ad unit.

```
public IRewardedAd CreateRewarded()
```

Returns

[IRewardedAd](#)

Managed object that exposes controls over native rewarded ad unit.

Namespace AppstockSDK.Api

Main namespace of the package.

The most useful classes

- Initialization
 - [Appstock](#)
- Configuration and Targeting
 - [SdkConfig](#)
 - [TargetingData](#)
- Basic Ads
 - [BannerAd](#)
 - [InterstitialAd](#)
 - [RewardedAd](#)

Classes

[Appstock](#)

Facade for static methods and cross-platform getters.

[BannerAd](#)

Banner ad. Anchored to some part of the screen. Call [Dispose\(\)](#) to remove when done. Or use [Show\(\)](#) / [Hide\(\)](#) to toggle visibility.

[BannerAdPositionExtensions](#)

Extensions for [AnchoredAdPosition](#).

[InterstitialAd](#)

A full page ad experience at natural transition points, such as a page change or an app launch. Interstitials use a close button that removes the ad from the user's experience.

[OptionalBoolExtensions](#)

Extensions for [OptionalBool](#).

[RewardedAd](#)

Rewarded ads reward users with in-app items for interacting with video ads, playable ads, or surveys.

[SdkConfig](#)

Data container for writeable properties of [ISdkProxy](#).

[SdkConfigSnapshot](#)

Data container for readable properties of [ISdkProxy](#).

[SdkProxyExtensions](#)

Extension methods for [ISdkProxy](#).

[TargetingData](#)

[TargetingProxyExtensions](#)

Extension methods for [ITargetingProxy](#).

Structs

[AdError](#)

Representation of an error.

[AdReward](#)

The size of a banner ad.

[AdSize](#)

The size of a banner ad.

[ExtSlot](#)

Data container for exchange-specific extensions to OpenRTB.

[ExternalUserID](#)

External ID of the user that could be used for ad targeting.

https://github.com/InteractiveAdvertisingBureau/openrtb/blob/main/extensions/2.x_official_extensions/eids.md

[SerializableOptional<T>](#)

Represents [Nullable<T>](#) for simple value types.

Interfaces

[IAdEventSource](#)

Events shared by all non-native ads.

[IAdUnit](#)

Properties required for any ad unit to function.

[IArchoredAd](#)

Ad that is anchored to the screen.

[IAutoRefreshableAd](#)

Ad that can auto-refresh.

[IBannerAd](#)

Common properties for banner facade and platform-specific implementations.

[ICloseableAd](#)

Ad that can be closed.

[IConcealableAd](#)

Ad that can be loaded and shown.

[IInterstitialAd](#)

Common properties for interstitial ad facade and platform-specific implementations.

[ILoadableAd](#)

Ad that can be loaded.

[IModalAd](#)

Ad that can be loaded and shown.

[IModalAdEventSource](#)

Events shared by interstitial and rewarded ads.

[IMonoformattedAd](#)

Single format supported.

[IMultiformattedAd](#)

Multiple formats supported.

[IMuteableAd](#)

Ad that can be muted.

[INativeAdLoader](#)

A native object that can be used to load a native ad (once built).

[IResizableAd](#)

Shared by non-native ad units.

[IRewardedAd](#)

Common properties for rewarded ad facade and platform-specific implementations.

[IRewardingAdEventSource](#)

Events for rewarding ads.

[ISdkProxy](#)

Managed object that exposes global settings of native SDK.

[ISkipableAd](#)

Ad that can be skipped.

[ITargetingProxy](#)

Managed object that exposes targeting settings of native SDK.

Enums

[AdElementPosition](#)

Where the ad element (image/button) should be placed.

[AdFormat](#)

Which ad content format to display.

[AdPosition](#)

Where the ad itself is logically.

AnchoredAdPosition

Where the banner itself should be placed.

ExtSlotMode

What fields of slots should be used to build the value.

LogLevel

The desired verbosity of logs by native library.

OptionalBool

Represents `bool?` -- i.e. [Nullable<T>](#) of `bool` -- that can be `true`, `false` or `null`.

Enum AdElementPosition

Namespace: [AppstockSDK.Api](#)

Assembly: Appstock.Core.dll

Where the ad element (image/button) should be placed.

```
public enum AdElementPosition
```

Fields

BottomCenter = 5

Bottom center of safe area.

BottomLeft = 4

Bottom left of safe area.

BottomRight = 6

Bottom right of safe area.

None = 0

Not assigned (keep default).

TopCenter = 2

Top center of safe area.

TopLeft = 1

Top left corner of safe area.

TopRight = 3

Top right of safe area.

Struct AdError

Namespace: [AppstockSDK.Api](#)

Assembly: Appstock.Core.dll

Representation of an error.

```
public struct AdError
```

Inherited Members

[ValueType.Equals\(object\)](#) , [ValueType.GetHashCode\(\)](#) , [ValueType.ToString\(\)](#) ,
[object.Equals\(object, object\)](#) , [object.GetType\(\)](#) , [object.ReferenceEquals\(object, object\)](#)

Fields

Message

Gets or sets the message.

```
public string Message
```

Field Value

[string](#)

The message from underlying error in native library.

Enum AdFormat

Namespace: [AppstockSDK.Api](#)

Assembly: Appstock.Core.dll

Which ad content format to display.

```
public enum AdFormat
```

Fields

Banner = 1

Banner, i.e. static content.

Native = 4

Native content format.

None = 0

Not assigned (keep default).

Video = 2

Video content.

Enum AdPosition

Namespace: [AppstockSDK.Api](#)

Assembly: Appstock.Core.dll

Where the ad itself is logically.

```
public enum AdPosition
```

Fields

Footer = 5

Ad is placed inside page footer.

Header = 4

Ad is placed inside page header.

Sidebar = 6

Ad is placed inside page sidebar.

Unknown = 0

Not assigned (unknown).

Struct AdReward

Namespace: [AppstockSDK.Api](#)

Assembly: Appstock.Core.dll

The size of a banner ad.

```
public readonly struct AdReward : IEquatable<AdReward>
```

Implements

[IEquatable](#)<[AdReward](#)>

Inherited Members

[object.Equals\(object, object\)](#) , [object.GetType\(\)](#) , [object.ReferenceEquals\(object, object\)](#)

Constructors

AdReward(string?, int, string?)

Initializes a new instance of the [AdReward](#) class.

```
public AdReward(string? rewardType, int count, string? extJsonString)
```

Parameters

rewardType [string](#)

What kind of reward user earned.

count [int](#)

How many units of reward user earned.

extJsonString [string](#)

Exchange-specific extensions to OpenRTB.

Fields

Count

Gets or sets reward count.

```
public readonly int Count
```

Field Value

[int](#)

How many reward units user earned.

ExtJsonString

Gets or sets [ext](#) value.

```
public readonly string? ExtJsonString
```

Field Value

[string](#)

Exchange-specific extensions to OpenRTB.

Remarks

Most likely to be a JSON object.

RewardType

Gets or sets reward type.

```
public readonly string? RewardType
```

Field Value

[string](#)

Type of reward user earned.

Methods

Equals(AdReward)

Indicates whether the current object is equal to another object of the same type.

```
public bool Equals(AdReward other)
```

Parameters

other [AdReward](#)

An object to compare with this object.

Returns

[bool](#)

[true](#) if the current object is equal to the **other** parameter; otherwise, [false](#).

Equals(object?)

Indicates whether this instance and a specified object are equal.

```
public override bool Equals(object? obj)
```

Parameters

obj [object](#)

The object to compare with the current instance.

Returns

[bool](#)

[true](#) if **obj** and this instance are the same type and represent the same value; otherwise, [false](#).

GetHashCode()

Returns the hash code for this instance.

```
public override int GetHashCode()
```

Returns

[int](#)

A 32-bit signed integer that is the hash code for this instance.

ToString()

Returns the fully qualified type name of this instance.

```
public override string ToString()
```

Returns

[string](#)

The fully qualified type name.

Struct AdSize

Namespace: [AppstockSDK.Api](#)

Assembly: Appstock.Core.dll

The size of a banner ad.

```
public readonly struct AdSize : IEquatable<AdSize>, IFormattable
```

Implements

[IEquatable](#)<[AdSize](#)>, [IFormattable](#)

Inherited Members

[object.Equals\(object, object\)](#), [object.GetType\(\)](#), [object.ReferenceEquals\(object, object\)](#)

Constructors

AdSize(int, int)

Creates a new [AdSize](#).

```
public AdSize(int width, int height)
```

Parameters

width [int](#)

The width of the ad in density-independent pixels.

height [int](#)

The height of the ad in density-independent pixels.

Fields

Banner

Gets a standard banner ad size.

```
public static readonly AdSize Banner
```

Field Value

[AdSize](#)

Interactive Advertising Bureau (IAB) banner ad size (320x50 density-independent pixels).

Height

Gets the height.

```
public readonly int Height
```

Field Value

[int](#)

The height of the ad in density-independent pixels.

IABBanner

Gets a standard full banner ad size.

```
public static readonly AdSize IABBanner
```

Field Value

[AdSize](#)

Interactive Advertising Bureau (IAB) full banner ad size (468x60 density-independent pixels).

Leaderboard

Gets a standard leaderboard ad size.

```
public static readonly AdSize Leaderboard
```

Field Value

[AdSize](#)

Interactive Advertising Bureau (IAB) leaderboard ad size (728x90 density-independent pixels).

MediumRectangle

Gets a standard medium rectangle ad size.

```
public static readonly AdSize MediumRectangle
```

Field Value

[AdSize](#)

Interactive Advertising Bureau (IAB) medium rectangle ad size (300x250 density-independent pixels).

Width

Gets the width.

```
public readonly int Width
```

Field Value

[int↗](#)

The width of the ad in density-independent pixels.

Methods

Equals(AdSize)

Indicates whether the current object is equal to another object of the same type.

```
public bool Equals(AdSize other)
```

Parameters

other [AdSize](#)

An object to compare with this object.

Returns

[bool](#)

[true](#) if the current object is equal to the **other** parameter; otherwise, [false](#).

Equals(object?)

Indicates whether this instance and a specified object are equal.

```
public override bool Equals(object? obj)
```

Parameters

obj [object](#)

The object to compare with the current instance.

Returns

[bool](#)

[true](#) if **obj** and this instance are the same type and represent the same value; otherwise, [false](#).

GetHashCode()

Returns the hash code for this instance.

```
public override int GetHashCode()
```

Returns

[int](#)

A 32-bit signed integer that is the hash code for this instance.

ToString()

Returns the fully qualified type name of this instance.

```
public override string ToString()
```

Returns

[string](#)

The fully qualified type name.

ToString(string?, IFormatProvider?)

Formats the value of the current instance using the specified format.

```
public string ToString(string? format, IFormatProvider? formatProvider)
```

Parameters

format [string](#)

The format to use.

-or-

A null reference ([Nothing](#) in Visual Basic) to use the default format defined for the type of the [IFormattable](#) implementation.

formatProvider [IFormatProvider](#)

The provider to use to format the value.

-or-

A null reference (**Nothing** in Visual Basic) to obtain the numeric format information from the current locale setting of the operating system.

Returns

[string](#)

The value of the current instance in the specified format.

Operators

implicit operator Vector2Int(AdSize)

Defines an implicit conversion of [AdSize](#) to a [Vector2Int](#).

```
public static implicit operator Vector2Int(AdSize size)
```

Parameters

[size AdSize](#)

The [AdSize](#) to convert.

Returns

[Vector2Int](#)

The converted [Vector2Int](#).

implicit operator AdSize(Vector2Int)

Defines an implicit conversion of [Vector2Int](#) to a [AdSize](#).

```
public static implicit operator AdSize(Vector2Int size)
```

Parameters

size [Vector2Int](#)

The [Vector2Int](#) to convert.

Returns

[AdSize](#)

The converted [AdSize](#).

Enum AnchoredAdPosition

Namespace: [AppstockSDK.Api](#)

Assembly: Appstock.Core.dll

Where the banner itself should be placed.

```
public enum AnchoredAdPosition
```

Extension Methods

[BannerAdPositionExtensions.ToAdPosition\(AnchoredAdPosition\)](#).

Fields

Bottom = 1

Bottom center of safe area.

BottomLeft = 4

Bottom left of safe area.

BottomRight = 5

Bottom right of safe area.

Top = 0

Top center of safe area.

TopLeft = 2

Top left corner of safe area.

TopRight = 3

Top right of safe area.

Class Appstock

Namespace: [AppstockSDK.Api](#)

Assembly: Appstock.Api.dll

Facade for static methods and cross-platform getters.

```
public static class Appstock
```

Inheritance

[object](#) ← Appstock

Inherited Members

[object.Equals\(object\)](#) , [object.Equals\(object, object\)](#) , [object.GetHashCode\(\)](#) ,
[object.GetType\(\)](#) , [object.MemberwiseClone\(\)](#) , [object.ReferenceEquals\(object, object\)](#) ,
[object.ToString\(\)](#)

Properties

Sdk

Gets SDK proxy object.

```
public static ISdkProxy Sdk { get; }
```

Property Value

[ISdkProxy](#)

Managed object that exposes global settings of native SDK.

See Also

[ISdkProxy](#)

Targeting

Gets SDK targeting proxy object.

```
public static ITargetingProxy Targeting { get; }
```

Property Value

[ITargetingProxy](#)

Managed object that exposes targeting settings of native SDK.

See Also

[ITargetingProxy](#)

Methods

InitializeSdk(string)

Initialize the SDK.

```
public static void InitializeSdk(string partnerKey)
```

Parameters

partnerKey [string](#)

Determines the Appstock server URL. The Appstock account manager should provide you with this key.

Class BannerAd

Namespace: [AppstockSDK.Api](#)

Assembly: Appstock.Api.dll

Banner ad. Anchored to some part of the screen. Call [Dispose\(\)](#) to remove when done. Or use [Show\(\)](#) / [Hide\(\)](#) to toggle visibility.

```
public class BannerAd : IBannerAd, IDisposable, IAdUnit, ILoadableAd,  
IMonoformattedAd, IResizableAd, IConcealableAd, IAnchoredAd,  
IAutoRefreshableAd, IAdEventSource
```

Inheritance

[object](#) ← BannerAd

Implements

[IBannerAd](#), [IDisposable](#), [IAdUnit](#), [ILoadableAd](#), [IMonoformattedAd](#), [IResizableAd](#), [IConcealableAd](#),
[IAnchoredAd](#), [IAutoRefreshableAd](#), [IAdEventSource](#)

Inherited Members

[object.Equals\(object\)](#), [object.Equals\(object, object\)](#), [object.GetHashCode\(\)](#),
[object.GetType\(\)](#), [object.MemberwiseClone\(\)](#), [object.ReferenceEquals\(object, object\)](#),
[object.ToString\(\)](#)

Constructors

BannerAd(AdSize)

Initializes a new instance of the [BannerAd](#) class.

```
public BannerAd(AdSize adSize)
```

Parameters

adSize [AdSize](#)

Banner view size.

Properties

AdPosition

Gets or sets ad position (for exchange purposes).

```
public AdPosition AdPosition { get; set; }
```

Property Value

[AdPosition](#)

Where the ad itself is logically (header/footer etc.).

See Also

[AdPosition](#)

AdSizes

Sets ad sizes for the ad.

```
public IEnumerable<AdSize> AdSizes { set; }
```

Property Value

[IEnumerable<AdSize>](#)

Sizes that ad's content may take.

AdUnitFormat

Sets format for the ad unit.

```
public AdFormat AdUnitFormat { set; }
```

Property Value

[AdFormat](#)

Ad format for the Ad.

AnchoredPosition

Gets or sets the position ad is anchored to.

```
public AnchoredAdPosition AnchoredPosition { get; set; }
```

Property Value

[AnchoredAdPosition](#)

Where the ad itself should be placed on screen (edge/corner).

See Also

[AnchoredPosition](#)

AutoRefreshDelay

Gets or sets auto refresh delay (interval).

```
public TimeSpan AutoRefreshDelay { get; set; }
```

Property Value

[TimeSpan](#)

How often to refresh the ad content.

EndpointID

Sets the endpoint ID for the ad.

```
public string? EndpointID { set; }
```

Property Value

string ↗

Unique endpoint identifier generated on the Appstock platform's UI.

PlacementID

Sets the placement ID for the ad.

```
public string? PlacementID { set; }
```

Property Value

string ↗

Unique placement identifier generated on the Appstock platform's UI.

Methods

Dispose()

Performs application-defined tasks associated with freeing, releasing, or resetting unmanaged resources.

```
public void Dispose()
```

Dispose(bool)

Releases the unmanaged resources used by the class and optionally releases the managed resources.

```
protected virtual void Dispose(bool disposing)
```

Parameters

disposing bool ↗

true to release both managed and unmanaged resources; **false** to release only unmanaged resources.

Hide()

Set the ad invisible.

```
public void Hide()
```

LoadAd()

Load the content of the ad.

```
public void LoadAd()
```

Show()

Set the ad visible.

```
public void Show()
```

StopAutoRefresh()

Disable auto-refreshing.

```
public void StopAutoRefresh()
```

Events

OnAdClicked

Fired when ad was clicked on.

```
public event Action? OnAdClicked
```

Event Type

[Action](#)

OnAdClosed

Fired when ad was closed (from fullscreen mode).

```
public event Action? OnAdClosed
```

Event Type

[Action](#)

OnAdFailed

Fired when ad failed to load.

```
public event Action<AdError?>? OnAdFailed
```

Event Type

[Action](#)<[AdError](#)?>

OnAdLoaded

Fired when ad finished loading.

```
public event Action? OnAdLoaded
```

Event Type

[Action](#)

Class BannerAdPositionExtensions

Namespace: [AppstockSDK.Api](#)

Assembly: Appstock.Core.dll

Extensions for [AnchoredAdPosition](#).

```
public static class BannerAdPositionExtensions
```

Inheritance

[object](#) ← BannerAdPositionExtensions

Inherited Members

[object.Equals\(object\)](#) , [object.Equals\(object, object\)](#) , [object.GetHashCode\(\)](#) ,
[object.GetType\(\)](#) , [object.MemberwiseClone\(\)](#) , [object.ReferenceEquals\(object, object\)](#) ,
[object.ToString\(\)](#)

Methods

ToAdPosition(AnchoredAdPosition)

Converts [AnchoredAdPosition](#) to an [AdPosition](#).

```
public static AdPosition ToAdPosition(this AnchoredAdPosition adPosition)
```

Parameters

adPosition [AnchoredAdPosition](#)

The [AnchoredAdPosition](#) to convert.

Returns

[AdPosition](#)

The converted [AdPosition](#).

Struct ExtSlot

Namespace: [AppstockSDK.Api](#)

Assembly: Appstock.Core.dll

Data container for exchange-specific extensions to OpenRTB.

```
[Serializable]  
public struct ExtSlot : IEquatable<ExtSlot>
```

Implements

[IEquatable](#)<[ExtSlot](#)>

Inherited Members

[ValueType.ToString\(\)](#) , [object.Equals\(object, object\)](#) , [object.GetType\(\)](#) ,
[object.ReferenceEquals\(object, object\)](#)

Remarks

Custom property drawer included.

Fields

customJsonString

JSON to be directly used as slot value.

```
[TextArea]  
public string? customJsonString
```

Field Value

[string](#)

JSON array/object to be used as slot value in [InlineString](#) mode.

elements

Gets or sets multiple elements of the slot value.

```
public ScriptableObject?[]? elements
```

Field Value

[ScriptableObject](#)[]

Data assets to be serialized into JSON and used as array element for slot value in [Multiple](#) mode.

mode

Gets or sets slot mode.

```
public ExtSlot.Mode mode
```

Field Value

[ExtSlot.Mode](#)

Mode of the slot.

See Also

[ExtSlot.Mode](#)

value

Gets or sets single value of the slot.

```
public ScriptableObject? value
```

Field Value

[ScriptableObject](#)[]

Data asset to be serialized into JSON and used as value of the slot in [Single](#) mode.

Properties

JsonString

Gets the effective JSON string.

```
public string? JsonString { get; }
```

Property Value

[string](#)

Effective JSON based on [mode](#) and data fields.

Methods

Equals(ExtSlot)

Indicates whether the current object is equal to another object of the same type.

```
public bool Equals(ExtSlot other)
```

Parameters

other [ExtSlot](#)

An object to compare with this object.

Returns

[bool](#)

[true](#) if the current object is equal to the **other** parameter; otherwise, [false](#).

Equals(object?)

Indicates whether this instance and a specified object are equal.

```
public override bool Equals(object? obj)
```

Parameters

obj [object](#)

The object to compare with the current instance.

Returns

[bool](#)

[true](#) if **obj** and this instance are the same type and represent the same value; otherwise, [false](#).

GetDiffMessage(ExtSlot)

Compares values of 2 [ExtSlots](#).

```
public string? GetDiffMessage(ExtSlot other)
```

Parameters

other [ExtSlot](#)

The object to compare against.

Returns

[string](#)

[null](#) if effective values are equal, descriptive message otherwise.

GetHashCode()

Returns the hash code for this instance.

```
public override int GetHashCode()
```

Returns

[int](#)

A 32-bit signed integer that is the hash code for this instance.

ToJsonArrayString(IEnumerable<ScriptableObject?>, bool)

Converts [ScriptableObject](#)s to a [string](#).

```
public static string ToJsonArrayString(IEnumerable<ScriptableObject?>
scriptableObjects, bool prettyPrint)
```

Parameters

[scriptableObjects](#) [IEnumerable](#)<[ScriptableObject](#)>

The [ScriptableObject](#)s to convert.

[prettyPrint](#) [bool](#)

Whether to make the output pretty-ish.

Returns

[string](#)

Serialized JSON array of [scriptableObjects](#).

Operators

implicit operator ExtSlot(string?)

Defines an implicit conversion of [string](#) to a [ExtSlot](#).

```
public static implicit operator ExtSlot(string? customJsonString)
```

Parameters

[customJsonString](#) [string](#)

The [string](#) to convert.

Returns

[ExtSlot](#)

The converted [ExtSlot](#).

implicit operator ExtSlot(ScriptableObject?)

Defines an implicit conversion of [ScriptableObject](#) to a [ExtSlot](#).

```
public static implicit operator ExtSlot(ScriptableObject? scriptableObject)
```

Parameters

[scriptableObject](#) [ScriptableObject](#)

The [ScriptableObject](#) to convert.

Returns

[ExtSlot](#)

The converted [ExtSlot](#).

implicit operator ExtSlot(Enumerable<ScriptableObject>?)

Defines an implicit conversion of [ScriptableObject](#)s to a [ExtSlot](#).

```
public static implicit operator ExtSlot(Enumerable<ScriptableObject>? scriptableObjects)
```

Parameters

[scriptableObjects](#) [ScriptableObject](#)[]

The [ScriptableObject](#)s to convert.

Returns

ExtSlot

The converted [ExtSlot](#).

Enum ExtSlot.Mode

Namespace: [AppstockSDK.Api](#)

Assembly: Appstock.Core.dll

What fields of slots should be used to build the value.

```
[Serializable]  
public enum ExtSlot.Mode
```

Fields

InlineString = 3

Send JSON as explicitly provided -- use [customJsonString](#)

Multiple = 2

Send JSON array -- use [elements](#).

None = 0

No value (i.e. **ext** is **null**)

Single = 1

Send JSON object -- use [value](#).

Struct ExternalUserID

Namespace: [AppstockSDK.Api](#)

Assembly: Appstock.Core.dll

External ID of the user that could be used for ad targeting.

https://github.com/InteractiveAdvertisingBureau/openrtb/blob/main/extensions/2.x_official_extensions/eids.md

```
[Serializable]
public struct ExternalUserID : IEquatable<ExternalUserID>
```

Implements

[IEquatable](#)<ExternalUserID>

Inherited Members

[object.Equals\(object, object\)](#) , [object.GetType\(\)](#) , [object.ReferenceEquals\(object, object\)](#)

Fields

aType

Gets or sets the type of user agent.

```
[Tooltip("Type of user agent the match is from.\nIt is highly recommended to set this, as many DSPs
separate app-native IDs from browser-based IDs and require a type value for ID resolution.\nSee
https://github.com/InteractiveAdvertisingBureau/openrtb/blob/main/extensions/2.x\_official\_extensions/eids
.md#list\_agenttypes")]
public SerializableOptional<int> aType
```

Field Value

[SerializableOptional](#)<int>

Type of user agent the match is from. It is highly recommended to set this, as many DSPs separate app-native IDs from browser-based IDs and require a type value for ID resolution.

Remarks

Refer to List:

https://github.com/InteractiveAdvertisingBureau/openrtb/blob/main/extensions/2.x_official_extensions/eids.md#list_agenttypes.

ext

Gets or sets ext content.

```
[TextArea]
[Tooltip("Optional vendor-specific extensions.")]

```

```
public string? ext
```

Field Value

[string](#) ↗

Optional vendor-specific extensions.

identifier

Gets or sets the ID.

```
[Tooltip("Cookie or platform-native identifier.")]  
public string? identifier
```

Field Value

[string](#) ↗

Cookie or platform-native identifier.

source

Gets or sets the source of ID.

```
[Tooltip("Source or technology provider responsible for the set of included IDs.\nExpressed as a top-level domain.")]  
public string? source
```

Field Value

[string](#) ↗

Source or technology provider responsible for the set of included IDs.

Remarks

Expressed as a top-level domain.

Properties

WithoutDefaults

Strips away whitespace strings that Unity creates on serialization.

```
public readonly ExternalUserID WithoutDefaults { get; }
```

Property Value

[ExternalUserID](#)

"Clone" without whitespace strings.

Methods

Equals(ExternalUserID)

Indicates whether the current object is equal to another object of the same type.

```
public readonly bool Equals(ExternalUserID other)
```

Parameters

other [ExternalUserID](#)

An object to compare with this object.

Returns

[bool](#)

[true](#) if the current object is equal to the **other** parameter; otherwise, [false](#).

Equals(object?)

Indicates whether this instance and a specified object are equal.

```
public override readonly bool Equals(object? obj)
```

Parameters

obj [object](#)

The object to compare with the current instance.

Returns

[bool](#)

[true](#) if **obj** and this instance are the same type and represent the same value; otherwise, [false](#).

GetHashCode()

Returns the hash code for this instance.

```
public override readonly int GetHashCode()
```

Returns

[int](#)

A 32-bit signed integer that is the hash code for this instance.

ToString()

Returns the fully qualified type name of this instance.

```
public override readonly string ToString()
```

Returns

[string](#)

The fully qualified type name.

Interface IAdEventSource

Namespace: [AppstockSDK.Api](#)

Assembly: Appstock.Core.dll

Events shared by all non-native ads.

```
public interface IAdEventSource
```

Events

OnAdClicked

Fired when ad was clicked on.

```
event Action OnAdClicked
```

Event Type

[Action](#)

OnAdClosed

Fired when ad was closed (from fullscreen mode).

```
event Action OnAdClosed
```

Event Type

[Action](#)

OnAdFailed

Fired when ad failed to load.

```
event Action<AdError?> OnAdFailed
```

Event Type

[Action](#)<[AdError](#)?>

OnAdLoaded

Fired when ad finished loading.

```
event Action OnAdLoaded
```

Event Type

[Action](#)

Interface IAdUnit

Namespace: [AppstockSDK.Api](#)

Assembly: Appstock.Core.dll

Properties required for any ad unit to function.

```
public interface IAdUnit
```

Properties

EndpointID

Sets the endpoint ID for the ad.

```
string? EndpointID { set; }
```

Property Value

[string](#) ↗

Unique endpoint identifier generated on the Appstock platform's UI.

PlacementID

Sets the placement ID for the ad.

```
string? PlacementID { set; }
```

Property Value

[string](#) ↗

Unique placement identifier generated on the Appstock platform's UI.

Interface IAnchoredAd

Namespace: [AppstockSDK.Api](#)

Assembly: Appstock.Core.dll

Ad that is anchored to the screen.

```
public interface IAnchoredAd
```

Properties

AdPosition

Gets or sets ad position (for exchange purposes).

```
AdPosition AdPosition { get; set; }
```

Property Value

[AdPosition](#)

Where the ad itself is logically (header/footer etc.).

See Also

[AdPosition](#)

AnchoredPosition

Gets or sets the position ad is anchored to.

```
AnchoredAdPosition AnchoredPosition { get; set; }
```

Property Value

[AnchoredAdPosition](#)

Where the ad itself should be placed on screen (edge/corner).

See Also

[AnchoredPosition](#)

Interface IAutoRefreshableAd

Namespace: [AppstockSDK.Api](#)

Assembly: Appstock.Core.dll

Ad that can auto-refresh.

```
public interface IAutoRefreshableAd
```

Properties

AutoRefreshDelay

Gets or sets auto refresh delay (interval).

```
TimeSpan AutoRefreshDelay { get; set; }
```

Property Value

[TimeSpan](#)

How often to refresh the ad content.

Methods

StopAutoRefresh()

Disable auto-refreshing.

```
void StopAutoRefresh()
```

Interface IBannerAd

Namespace: [AppstockSDK.Api](#)

Assembly: Appstock.Core.dll

Common properties for banner facade and platform-specific implementations.

```
public interface IBannerAd : IDisposable, IAdUnit, ILoadableAd, IMonoformattedAd,  
IResizableAd, IConcealableAd, IAnchoredAd, IAutoRefreshableAd, IAdEventSource
```

Inherited Members

[IDisposable.Dispose\(\)](#), [IAdUnit.PlacementID](#), [IAdUnit.EndpointID](#), [ILoadableAd.LoadAd\(\)](#),
[IMonoformattedAd.AdUnitFormat](#), [IResizableAd.AdSizes](#), [IConcealableAd.Show\(\)](#),
[IConcealableAd.Hide\(\)](#), [IAnchoredAd.AnchoredPosition](#), [IAnchoredAd.AdPosition](#),
[IAutoRefreshableAd.AutoRefreshDelay](#), [IAutoRefreshableAd.StopAutoRefresh\(\)](#),
[IAdEventSource.OnAdLoaded](#), [IAdEventSource.OnAdFailed](#), [IAdEventSource.OnAdClicked](#),
[IAdEventSource.OnAdClosed](#)

Interface ICloseableAd

Namespace: [AppstockSDK.Api](#)

Assembly: Appstock.Core.dll

Ad that can be closed.

```
public interface ICloseableAd
```

Properties

CloseButtonArea

Sets close button area factor.

```
double CloseButtonArea { set; }
```

Property Value

[double](#)

the percentage of the device screen that the close button should cover.

Remarks

Allowed range - **0...1**.

Default value is **~0.1**.

CloseButtonPosition

Sets position of the close button.

```
AdElementPosition CloseButtonPosition { set; }
```

Property Value

AdElementPosition

Where the close button appears on the screen.

Remarks

Allowed values: [TopLeft](#), [TopRight](#).

Default is [TopRight](#).

Interface IConcealableAd

Namespace: [AppstockSDK.Api](#)

Assembly: Appstock.Core.dll

Ad that can be loaded and shown.

```
public interface IConcealableAd
```

Methods

Hide()

Set the ad invisible.

```
void Hide()
```

Show()

Set the ad visible.

```
void Show()
```

Interface IInterstitialAd

Namespace: [AppstockSDK.Api](#)

Assembly: Appstock.Core.dll

Common properties for interstitial ad facade and platform-specific implementations.

```
public interface IInterstitialAd : IDisposable, IAdUnit, IMultiformattedAd,  
IResizableAd, ISkippableAd, IMuteableAd, ICloseableAd, IModalAd, ILoadableAd,  
IAdEventSource, IModalAdEventSource
```

Inherited Members

[IDisposable.Dispose\(\).[↗]](#), [IAdUnit.PlacementID](#), [IAdUnit.EndpointID](#),
[IMultiformattedAd.AdUnitFormats](#), [IResizableAd.AdSizes](#), [ISkippableAd.SkipButtonArea](#),
[ISkippableAd.SkipButtonPosition](#), [ISkippableAd.SkipDelay](#), [IMuteableAd.Muted](#),
[IMuteableAd.SoundButtonVisible](#), [ICloseableAd.CloseButtonArea](#), [ICloseableAd.CloseButtonPosition](#),
[IModalAd.Loaded](#), [IModalAd.Show\(Action\)](#), [ILoadableAd.LoadAd\(\)](#), [IAdEventSource.OnAdLoaded](#),
[IAdEventSource.OnAdFailed](#), [IAdEventSource.OnAdClicked](#), [IAdEventSource.OnAdClosed](#),
[IModalAdEventSource.OnAdDisplayed](#)

Interface ILoadableAd

Namespace: [AppstockSDK.Api](#)

Assembly: Appstock.Core.dll

Ad that can be loaded.

```
public interface ILoadableAd
```

Methods

LoadAd()

Load the content of the ad.

```
void LoadAd()
```

Interface IModalAd

Namespace: [AppstockSDK.Api](#)

Assembly: Appstock.Core.dll

Ad that can be loaded and shown.

```
public interface IModalAd : ILoadableAd
```

Inherited Members

[ILoadableAd.LoadAd\(\)](#).

Properties

Loaded

Gets if ad has loaded.

```
bool Loaded { get; }
```

Property Value

[bool](#)

`true` if ad has successfully loaded, `false` otherwise.

Methods

Show(Action?)

Show the ad on screen.

```
void Show(Action? actionOnUIThread = null)
```

Parameters

`actionOnUIThread` [Action](#)

Something you want to execute immediately when the ad is being added to the screen

`actionOnUIThread` is invoked on **NATIVE UI THREAD** which **MAY DIFFER from UNITY'S MAIN THREAD.**

Interface IModalAdEventSource

Namespace: [AppstockSDK.Api](#)

Assembly: Appstock.Core.dll

Events shared by interstitial and rewarded ads.

```
public interface IModalAdEventSource
```

Events

OnAdDisplayed

Fired when ad did appear on screen.

```
event Action OnAdDisplayed
```

Event Type

[Action](#)

Interface IMonoformattedAd

Namespace: [AppstockSDK.Api](#)

Assembly: Appstock.Core.dll

Single format supported.

```
public interface IMonoformattedAd
```

Properties

AdUnitFormat

Sets format for the ad unit.

```
AdFormat AdUnitFormat { set; }
```

Property Value

[AdFormat](#)

Ad format for the Ad.

Interface IMultiformattedAd

Namespace: [AppstockSDK.Api](#)

Assembly: Appstock.Core.dll

Multiple formats supported.

```
public interface IMultiformattedAd
```

Properties

AdUnitFormats

Sets formats for the ad unit.

```
IEnumerable<AdFormat> AdUnitFormats { set; }
```

Property Value

[IEnumerable](#)<[AdFormat](#)>

Ad formats that are allowed into the ad.

Interface IMuteableAd

Namespace: [AppstockSDK.Api](#)

Assembly: Appstock.Core.dll

Ad that can be muted.

```
public interface IMuteableAd
```

Properties

Muted

Sets if ad is to be muted.

```
bool Muted { set; }
```

Property Value

[bool](#)

`true` if muted, `false` otherwise.

SoundButtonVisible

Sets if **Mute** button is visible when the ad is on display.

```
bool SoundButtonVisible { set; }
```

Property Value

[bool](#)

`true` if visible, `false` otherwise.

Interface INativeAdLoader

Namespace: [AppstockSDK.Api](#)

Assembly: Appstock.Core.dll

A native object that can be used to load a native ad (once built).

```
public interface INativeAdLoader : IDisposable
```

Inherited Members

[IDisposable.Dispose\(\)](#)

Methods

LoadAd(Action<INativeAd?, AdError?>)

Sends a request and loads the [INativeAd](#).

```
void LoadAd(Action<INativeAd?, AdError?> callback)
```

Parameters

callback [Action](#)<[INativeAd](#), [AdError](#)?>

Invoked when loading succeeds or fails.

Remarks

Success indicated by non-null [INativeAd](#).

Interface IResizableAd

Namespace: [AppstockSDK.Api](#)

Assembly: Appstock.Core.dll

Shared by non-native ad units.

```
public interface IResizableAd
```

Properties

AdSizes

Sets ad sizes for the ad.

```
IEnumerable<AdSize> AdSizes { set; }
```

Property Value

[IEnumerable](#)<[AdSize](#)>

Sizes that ad's content may take.

Interface IRewardedAd

Namespace: [AppstockSDK.Api](#)

Assembly: Appstock.Core.dll

Common properties for rewarded ad facade and platform-specific implementations.

```
public interface IRewardedAd : IDisposable, IAdUnit, IMultiformattedAd,  
IResizableAd, IMuteableAd, ICloseableAd, IModalAd, ILoadableAd, IAdEventSource,  
IModalAdEventSource, IRewardingAdEventSource
```

Inherited Members

[IDisposable.Dispose\(\).](#) ↗ , [IAdUnit.PlacementID](#) , [IAdUnit.EndpointID](#) ,
[IMultiformattedAd.AdUnitFormats](#) , [IResizableAd.AdSizes](#) , [IMuteableAd.Muted](#) ,
[IMuteableAd.SoundButtonVisible](#) , [ICloseableAd.CloseButtonArea](#) , [ICloseableAd.CloseButtonPosition](#) ,
[IModalAd.Loaded](#) , [IModalAd.Show\(Action\)](#) , [ILoadableAd.LoadAd\(\)](#) , [IAdEventSource.OnAdLoaded](#) ,
[IAdEventSource.OnAdFailed](#) , [IAdEventSource.OnAdClicked](#) , [IAdEventSource.OnAdClosed](#) ,
[IModalAdEventSource.OnAdDisplayed](#) , [IRewardingAdEventSource.OnReward](#)

Interface IRewardingAdEventSource

Namespace: [AppstockSDK.Api](#)

Assembly: Appstock.Core.dll

Events for rewarding ads.

```
public interface IRewardingAdEventSource
```

Events

OnReward

Fired when user deserved the reward.

```
event Action<AdReward?> OnReward
```

Event Type

[Action](#)<[AdReward](#)?>

Interface ISdkProxy

Namespace: [AppstockSDK.Api](#)

Assembly: Appstock.Core.dll

Managed object that exposes global settings of native SDK.

```
public interface ISdkProxy
```

Extension Methods

[SdkProxyExtensions.Apply\(ISdkProxy, SdkConfig\)](#).

Properties

AdRequestTimeout

Gets or sets timeout for creative requests.

```
TimeSpan AdRequestTimeout { get; set; }
```

Property Value

[TimeSpan](#)

The time interval allowed for a creative to load before it is considered a failure.

AdRequestTimeoutPreRenderContent

Gets or sets timeout for video and interstitial creatives.

```
TimeSpan AdRequestTimeoutPreRenderContent { get; set; }
```

Property Value

[TimeSpan](#)

The time interval allowed for video and interstitial creatives to load.

AssignNativeAssetID

Gets or sets whether the asset ID for native ads should be manually assigned.

```
bool AssignNativeAssetID { get; set; }
```

Property Value

[bool](#)

`true` if IDs should be assigned automatically, `false` if manually.

DebugRequests

Gets or sets debug mode for requests.

```
bool DebugRequests { get; set; }
```

Property Value

[bool](#)

`true` if debug mode is enabled, `false` otherwise

EndpointID

Gets or sets endpoint ID for ads.

```
string? EndpointID { set; }
```

Property Value

[string](#)

A unique identifier generated on the platform's UI.

ExternalUserIds

Gets or sets external IDs of the user.

```
IEnumerable<ExternalUserID> ExternalUserIds { get; set; }
```

Property Value

[IEnumerable](#)<[ExternalUserID](#)>

External IDs of the user that could be used for ad targeting.

Remarks

See

https://github.com/InteractiveAdvertisingBureau/openrtb/blob/main/extensions/2.x_official_extensions/eids.md

See Also

[ExternalUserID](#), [ExternalUserIds](#)

LogLevel

Gets or sets the log level for native library.

```
LogLevel LogLevel { get; set; }
```

Property Value

[LogLevel](#)

The desired verbosity of the logs.

OmSdkVersion

Gets the OM SDK version.

```
string? OmSdkVersion { get; }
```

Property Value

[string](#)

The version of native OM SDK library.

SdkVersion

Gets the SDK version.

```
string? SdkVersion { get; }
```

Property Value

[string](#)

The version of native SDK library.

Timeout

Gets or sets request timeout.

```
TimeSpan Timeout { get; set; }
```

Property Value

[TimeSpan](#)

The timeout for ad requests.

Interface ISkippableAd

Namespace: [AppstockSDK.Api](#)

Assembly: Appstock.Core.dll

Ad that can be skipped.

```
public interface ISkippableAd
```

Properties

SkipButtonArea

Sets skip button area factor.

```
double SkipButtonArea { set; }
```

Property Value

[double](#)

the percentage of the device screen that the skip button should cover.

Remarks

Allowed range - **0...1**.

Default value is **~0.1**.

SkipButtonPosition

Sets position of the skip button.

```
AdElementPosition SkipButtonPosition { set; }
```

Property Value

AdElementPosition

Where the skip button appears on the screen.

Remarks

Allowed values: [TopLeft](#), [TopRight](#).

Default is [TopRight](#).

SkipDelay

Sets skip button appearing delay for the ad.

```
int SkipDelay { set; }
```

Property Value

[int](#)

Number of seconds after the start of playback before the skip or close button should appear.

Remarks

Default value is ~[10.0](#).

Interface ITargetingProxy

Namespace: [AppstockSDK.Api](#)

Assembly: Appstock.Core.dll

Managed object that exposes targeting settings of native SDK.

```
public interface ITargetingProxy
```

Extension Methods

[TargetingProxyExtensions.Apply\(ITargetingProxy, TargetingData\)](#),
[TargetingProxyExtensions.TakeSnapshot\(ITargetingProxy\)](#).

Properties

Coordinate

Gets or sets user's base location.

```
Vector2? Coordinate { get; set; }
```

Property Value

[Vector2](#)?

Location of the user's home base.

Remarks

This is not necessarily their current location.

Domain

Gets or sets app domain.

```
string? Domain { get; set; }
```

Property Value

[string](#)?

Domain of the app (e.g., `mygame.foo.com`).

ExternalUserIds

Gets or sets external IDs of the user.

```
IEnumerable<ExternalUserID> ExternalUserIds { get; set; }
```

Property Value

[IEnumerable](#)<[ExternalUserID](#)>

External IDs of the user that could be used for ad targeting.

Remarks

See

https://github.com/InteractiveAdvertisingBureau/openrtb/blob/main/extensions/2.x_official_extensions/eids.md

See Also

[ExternalUserID](#)

IsSubjectToCOPPA

Gets or sets if request is subject to the COPPA.

```
bool? IsSubjectToCOPPA { get; set; }
```

Property Value

[bool](#)?

`true` if this request is subject to the COPPA regulations established by the USA FTC, `false` otherwise.

ItunesID

Gets or sets iTunes ID.

```
string? ItunesID { get; set; }
```

Property Value

[string](#)

The app identifier in iTunes.

Keywords

Gets current keywords.

```
IEnumerable<string?> Keywords { get; }
```

Property Value

[IEnumerable](#)<[string](#)>

Keywords, interests, or intent.

See Also

[AddKeyword\(string\)](#)

PublisherName

Gets or sets publisher name.

```
string? PublisherName { get; set; }
```

Property Value

[string](#)

App's publisher name.

SourceApp

Gets or sets source app.

```
string? SourceApp { get; set; }
```

Property Value

[string](#)

ID of publisher app in Apple's App Store.

StoreURL

Gets or sets store URL.

```
string? StoreURL { get; set; }
```

Property Value

[string](#)

App store URL for an installed app.

UserCustomData

Gets or sets custom data for user.

```
string? UserCustomData { get; set; }
```

Property Value

[string](#)

Optional feature to pass bidder data that was set in the exchange's cookie.

Remarks

The string must be in base85 cookie safe characters and be in any format.

UserExtJson

Gets or sets **ext** content for ORTB **user**.

```
string? UserExtJson { get; set; }
```

Property Value

[string](#)

Exchange-specific extensions to OpenRTB.

Remarks

Should be a valid JSON object or array.

Methods

AddKeyword(string)

Adds a keyword.

```
void AddKeyword(string keyword)
```

Parameters

keyword [string](#)

Keyword, interest, or intent.

See Also

[Keywords](#)

Class InterstitialAd

Namespace: [AppstockSDK.Api](#)

Assembly: Appstock.Api.dll

A full page ad experience at natural transition points, such as a page change or an app launch. Interstitials use a close button that removes the ad from the user's experience.

```
public class InterstitialAd : IInterstitialAd, IDisposable, IAdUnit,  
IMultiformattedAd, IResizableAd, ISkippableAd, IMuteableAd, ICloseableAd, IModalAd,  
ILoadableAd, IAdEventSource, IModalAdEventSource
```

Inheritance

[object](#) ← InterstitialAd

Implements

[IInterstitialAd](#), [IDisposable](#), [IAdUnit](#), [IMultiformattedAd](#), [IResizableAd](#), [ISkippableAd](#), [IMuteableAd](#),
[ICloseableAd](#), [IModalAd](#), [ILoadableAd](#), [IAdEventSource](#), [IModalAdEventSource](#)

Inherited Members

[object.Equals\(object\)](#), [object.Equals\(object, object\)](#), [object.GetHashCode\(\)](#),
[object.GetType\(\)](#), [object.MemberwiseClone\(\)](#), [object.ReferenceEquals\(object, object\)](#),
[object.ToString\(\)](#)

Constructors

InterstitialAd()

Initializes a new instance of the [InterstitialAd](#) class.

```
public InterstitialAd()
```

Properties

AdSizes

Sets ad sizes for the ad.

```
public IEnumerable<AdSize> AdSizes { set; }
```

Property Value

[IEnumerable](#)<[AdSize](#)>

Sizes that ad's content may take.

AdUnitFormats

Sets formats for the ad unit.

```
public IEnumerable<AdFormat> AdUnitFormats { set; }
```

Property Value

[IEnumerable](#)<[AdFormat](#)>

Ad formats that are allowed into the ad.

CloseButtonArea

Sets close button area factor.

```
public double CloseButtonArea { set; }
```

Property Value

[double](#)

the percentage of the device screen that the close button should cover.

Remarks

Allowed range - **0...1**.

Default value is ~**0.1**.

CloseButtonPosition

Sets position of the close button.

```
public AdElementPosition CloseButtonPosition { set; }
```

Property Value

[AdElementPosition](#)

Where the close button appears on the screen.

Remarks

Allowed values: [TopLeft](#), [TopRight](#).

Default is [TopRight](#).

EndpointID

Sets the endpoint ID for the ad.

```
public string? EndpointID { set; }
```

Property Value

[string](#) ↗

Unique endpoint identifier generated on the Appstock platform's UI.

Loaded

Gets if ad has loaded.

```
public bool Loaded { get; }
```

Property Value

[bool](#) ↗

`true` if ad has successfully loaded, `false` otherwise.

Muted

Sets if ad is to be muted.

```
public bool Muted { set; }
```

Property Value

[bool](#)

`true` if muted, `false` otherwise.

PlacementID

Sets the placement ID for the ad.

```
public string? PlacementID { set; }
```

Property Value

[string](#)

Unique placement identifier generated on the Appstock platform's UI.

SkipButtonArea

Sets skip button area factor.

```
public double SkipButtonArea { set; }
```

Property Value

[double](#)

the percentage of the device screen that the skip button should cover.

Remarks

Allowed range - **0...1**.

Default value is ~**0.1**.

SkipButtonPosition

Sets position of the skip button.

```
public AdElementPosition SkipButtonPosition { set; }
```

Property Value

[AdElementPosition](#)

Where the skip button appears on the screen.

Remarks

Allowed values: [TopLeft](#), [TopRight](#).

Default is [TopRight](#).

SkipDelay

Sets skip button appearing delay for the ad.

```
public int SkipDelay { set; }
```

Property Value

[int](#)

Number of seconds after the start of playback before the skip or close button should appear.

Remarks

Default value is ~**10.0**.

SoundButtonVisible

Sets if **Mute** button is visible when the ad is on display.

```
public bool SoundButtonVisible { set; }
```

Property Value

[bool](#)

true if visible, **false** otherwise.

Methods

Dispose()

Performs application-defined tasks associated with freeing, releasing, or resetting unmanaged resources.

```
public void Dispose()
```

Dispose(bool)

Releases the unmanaged resources used by the class and optionally releases the managed resources.

```
protected virtual void Dispose(bool disposing)
```

Parameters

disposing [bool](#)

true to release both managed and unmanaged resources; **false** to release only unmanaged resources.

~InterstitialAd()

```
protected ~InterstitialAd()
```

LoadAd()

Load the content of the ad.

```
public void LoadAd()
```

Show(Action?)

Show the ad on screen.

```
public void Show(Action? actionOnUIThread = null)
```

Parameters

`actionOnUIThread` [Action](#)

Something you want to execute immediately when the ad is being added to the screen

`actionOnUIThread` is invoked on **NATIVE UI THREAD** which **MAY DIFFER from UNITY'S MAIN THREAD**.

Events

OnAdClicked

Fired when ad was clicked on.

```
public event Action? OnAdClicked
```

Event Type

[Action](#)

OnAdClosed

Fired when ad was closed (from fullscreen mode).

```
public event Action? OnAdClosed
```

Event Type

[Action](#)

OnAdDisplayed

Fired when ad did appear on screen.

```
public event Action? OnAdDisplayed
```

Event Type

[Action](#)

OnAdFailed

Fired when ad failed to load.

```
public event Action<AdError?>? OnAdFailed
```

Event Type

[Action](#)<[AdError](#)?>

OnAdLoaded

Fired when ad finished loading.

```
public event Action? OnAdLoaded
```

Event Type

[Action](#)

Enum LogLevel

Namespace: [AppstockSDK.Api](#)

Assembly: Appstock.Core.dll

The desired verbosity of logs by native library.

```
public enum LogLevel
```

Fields

Debug = 3

Errors, warnings and debug.

Error = 1

Errors only.

None = 0

No logs.

Warning = 2

Errors and warnings.

See Also

[LogLevel](#)

[logLevel](#)

[LogLevel](#)

Enum OptionalBool

Namespace: [AppstockSDK.Api](#)

Assembly: Appstock.Core.dll

Represents `bool?` -- i.e. [Nullable<T>](#) of `bool` -- that can be `true`, `false` or `null`.

```
[Serializable]
public enum OptionalBool
```

Extension Methods

[OptionalBoolExtensions.IsTrue\(OptionalBool\)](#) , [OptionalBoolExtensions.ToNullableBool\(OptionalBool\)](#).

Fields

`False = 1`

`false`

`NotAssigned = 0`

`null`

`True = 2`

`true`

Class OptionalBoolExtensions

Namespace: [AppstockSDK.Api](#)

Assembly: Appstock.Core.dll

Extensions for [OptionalBool](#).

```
public static class OptionalBoolExtensions
```

Inheritance

[object](#) ← OptionalBoolExtensions

Inherited Members

[object.Equals\(object\)](#) , [object.Equals\(object, object\)](#) , [object.GetHashCode\(\)](#) ,
[object.GetType\(\)](#) , [object.MemberwiseClone\(\)](#) , [object.ReferenceEquals\(object, object\)](#) ,
[object.ToString\(\)](#)

Methods

IsTrue(OptionalBool)

Checks if [OptionalBool](#) is [True](#).

```
public static bool IsTrue(this OptionalBool value)
```

Parameters

value [OptionalBool](#)

[OptionalBool](#) to check.

Returns

[bool](#)

true if **value** is [True](#), **false** otherwise.

ToNullableBool(OptionalBool)

Converts [OptionalBool](#) to a [Nullable<T>](#) of [bool](#).

```
public static bool? ToNullableBool(this OptionalBool value)
```

Parameters

value [OptionalBool](#)

The [OptionalBool](#) to convert.

Returns

[bool](#)?

The converted [Nullable<T>](#) of [bool](#).

ToOptionalBool(bool?)

Converts [Nullable<T>](#) of [bool](#) to an [OptionalBool](#).

```
public static OptionalBool ToOptionalBool(this bool? value)
```

Parameters

value [bool](#)?

The [Nullable<T>](#) of [bool](#) to convert.

Returns

[OptionalBool](#)

The converted [OptionalBool](#).

Class RewardedAd

Namespace: [AppstockSDK.Api](#)

Assembly: Appstock.Api.dll

Rewarded ads reward users with in-app items for interacting with video ads, playable ads, or surveys.

```
public class RewardedAd : IRewardedAd, IDisposable, IAdUnit, IMultiformattedAd,  
IResizableAd, IMuteableAd, ICloseableAd, IModalAd, ILoadableAd, IAdEventSource,  
IModalAdEventSource, IRewardingAdEventSource
```

Inheritance

[object](#) ← RewardedAd

Implements

[IRewardedAd](#), [IDisposable](#), [IAdUnit](#), [IMultiformattedAd](#), [IResizableAd](#), [IMuteableAd](#), [ICloseableAd](#),
[IModalAd](#), [ILoadableAd](#), [IAdEventSource](#), [IModalAdEventSource](#), [IRewardingAdEventSource](#)

Inherited Members

[object.Equals\(object\)](#), [object.Equals\(object, object\)](#), [object.GetHashCode\(\)](#),
[object.GetType\(\)](#), [object.MemberwiseClone\(\)](#), [object.ReferenceEquals\(object, object\)](#),
[object.ToString\(\)](#)

Constructors

RewardedAd()

Initializes a new instance of the [RewardedAd](#) class.

```
public RewardedAd()
```

Properties

AdSizes

Sets ad sizes for the ad.

```
public IEnumerable<AdSize> AdSizes { set; }
```

Property Value

[IEnumerable](#)<[AdSize](#)>

Sizes that ad's content may take.

AdUnitFormats

Sets formats for the ad unit.

```
public IEnumerable<AdFormat> AdUnitFormats { set; }
```

Property Value

[IEnumerable](#)<[AdFormat](#)>

Ad formats that are allowed into the ad.

CloseButtonArea

Sets close button area factor.

```
public double CloseButtonArea { set; }
```

Property Value

[double](#)

the percentage of the device screen that the close button should cover.

Remarks

Allowed range - **0...1**.

Default value is ~**0.1**.

CloseButtonPosition

Sets position of the close button.

```
public AdElementPosition CloseButtonPosition { set; }
```

Property Value

[AdElementPosition](#)

Where the close button appears on the screen.

Remarks

Allowed values: [TopLeft](#), [TopRight](#).

Default is [TopRight](#).

EndpointID

Sets the endpoint ID for the ad.

```
public string? EndpointID { set; }
```

Property Value

[string](#) ↗

Unique endpoint identifier generated on the Appstock platform's UI.

Loaded

Gets if ad has loaded.

```
public bool Loaded { get; }
```

Property Value

[bool](#) ↗

`true` if ad has successfully loaded, `false` otherwise.

Muted

Sets if ad is to be muted.

```
public bool Muted { set; }
```

Property Value

[bool](#)

`true` if muted, `false` otherwise.

PlacementID

Sets the placement ID for the ad.

```
public string? PlacementID { set; }
```

Property Value

[string](#)

Unique placement identifier generated on the Appstock platform's UI.

SoundButtonVisible

Sets if `Mute` button is visible when the ad is on display.

```
public bool SoundButtonVisible { set; }
```

Property Value

[bool](#)

`true` if visible, `false` otherwise.

Methods

Dispose()

Performs application-defined tasks associated with freeing, releasing, or resetting unmanaged resources.

```
public void Dispose()
```

Dispose(bool)

Releases the unmanaged resources used by the class and optionally releases the managed resources.

```
protected virtual void Dispose(bool disposing)
```

Parameters

`disposing` [bool](#)

`true` to release both managed and unmanaged resources; `false` to release only unmanaged resources.

~RewardedAd()

```
protected ~RewardedAd()
```

LoadAd()

Load the content of the ad.

```
public void LoadAd()
```

Show(Action?)

Show the ad on screen.

```
public void Show(Action? actionOnUIThread = null)
```

Parameters

`actionOnUIThread` [Action](#)

Something you want to execute immediately when the ad is being added to the screen

`actionOnUIThread` is invoked on **NATIVE UI THREAD** which **MAY DIFFER from UNITY'S MAIN THREAD.**

Events

OnAdClicked

Fired when ad was clicked on.

```
public event Action? OnAdClicked
```

Event Type

[Action](#)

OnAdClosed

Fired when ad was closed (from fullscreen mode).

```
public event Action? OnAdClosed
```

Event Type

[Action](#)

OnAdDisplayed

Fired when ad did appear on screen.

```
public event Action? OnAdDisplayed
```

Event Type

[Action↗](#)

OnAdFailed

Fired when ad failed to load.

```
public event Action<AdError?>? OnAdFailed
```

Event Type

[Action↗ <AdError?>](#)

OnAdLoaded

Fired when ad finished loading.

```
public event Action? OnAdLoaded
```

Event Type

[Action↗](#)

OnReward

Fired when user deserved the reward.

```
public event Action<AdReward?>? OnReward
```

Event Type

[Action↗ <AdReward?>](#)

Class SdkConfig

Namespace: [AppstockSDK.Api](#)

Assembly: Appstock.Core.dll

Data container for writeable properties of [ISdkProxy](#).

```
[Serializable]
public class SdkConfig
```

Inheritance

[object](#) ← SdkConfig

Inherited Members

[object.Equals\(object\)](#) , [object.Equals\(object, object\)](#) , [object.GetHashCode\(\)](#) , [object.GetType\(\)](#) ,
[object.MemberwiseClone\(\)](#) , [object.ReferenceEquals\(object, object\)](#) , [object.ToString\(\)](#)

Remarks

For exposing controls via Unity Editor.

Fields

adRequestTimeout

Gets or sets timeout for creative requests.

```
[Tooltip("The time interval allowed for a creative to load before it is considered
a failure.")]
public SerializableOptional<float> adRequestTimeout
```

Field Value

[SerializableOptional<float>](#)

The time interval allowed for a creative to load before it is considered a failure.

Remarks

In seconds

See Also

[AdRequestTimeout](#)

adRequestTimeoutPreRenderContent

Gets or sets timeout for video and interstitial creatives.

```
[Tooltip("The time interval allowed for video and interstitial creatives to load.")]
public SerializableOptional<float> adRequestTimeoutPreRenderContent
```

Field Value

[SerializableOptional<float>](#)

The time interval allowed for video and interstitial creatives to load.

Remarks

In seconds

See Also

[AdRequestTimeoutPreRenderContent](#)

assignNativeAssetID

Gets or sets whether the asset ID for native ads should be manually assigned.

```
[Tooltip("Determines whether the asset ID for native ads should be manually assigned.")]
public OptionalBool assignNativeAssetID
```

Field Value

[OptionalBool](#)

true if IDs should be assigned automatically, **false** if manually.

See Also

[AssignNativeAssetID](#)

debugRequests

Gets or sets debug mode for requests.

```
[Tooltip("Enables or disables debug mode for requests.")]
public OptionalBool debugRequests
```

Field Value

[OptionalBool](#)

`true` if debug mode is enabled, `false` otherwise

See Also

[DebugRequests](#)

endpointID

Gets or sets endpoint ID for ads.

```
[Tooltip("A unique identifier generated on the platform's UI.")]
public string? endpointID
```

Field Value

[string](#)

A unique identifier generated on the platform's UI.

See Also

[EndpointID](#)

externalUserIds

Gets or sets external IDs of the user.

```
[Tooltip("External IDs of the user that could be used for ad targeting.")]
public List<ExternalUserID>? externalUserIds
```

Field Value

[List](#)<[ExternalUserID](#)>

External IDs of the user that could be used for ad targeting.

Remarks

See

https://github.com/InteractiveAdvertisingBureau/openrtb/blob/main/extensions/2.x_official_extensions/eids.md

See Also

[ExternalUserID](#), [ExternalUserIds](#), [ExternalUserIds](#)

logLevel

Gets or sets the log level for native library.

```
[Tooltip("Sets the desired verbosity of the logs.")]  
public SerializableOptional<LogLevel> logLevel
```

Field Value

[SerializableOptional<LogLevel>](#)

The desired verbosity of the logs.

See Also

[LogLevel](#)

timeout

Gets or sets request timeout.

```
[Header("Timeouts in seconds")]
[Tooltip("The timeout for ad requests.")]
public SerializableOptional<float> timeout
```

Field Value

[SerializableOptional<float>](#)

The timeout for ad requests.

Remarks

In seconds

See Also

[Timeout](#)

Class SdkConfigSnapshot

Namespace: [AppstockSDK.Api](#)

Assembly: Appstock.Core.dll

Data container for readable properties of [ISdkProxy](#).

```
[Serializable]
public class SdkConfigSnapshot : IEquatable<SdkConfigSnapshot>, IEquatable<SdkConfig>
```

Inheritance

[object](#) ← SdkConfigSnapshot

Implements

[IEquatable](#)<[SdkConfigSnapshot](#)>, [IEquatable](#)<[SdkConfig](#)>

Inherited Members

[object.Equals\(object, object\)](#), [object.GetType\(\)](#), [object.MemberwiseClone\(\)](#),
[object.ReferenceEquals\(object, object\)](#), [object.ToString\(\)](#)

Remarks

To simplify logging the state.

Constructors

SdkConfigSnapshot(ISdkProxy)

Collects all readable properties from [sdkProxy](#).

```
public SdkConfigSnapshot(ISdkProxy sdkProxy)
```

Parameters

[sdkProxy](#) [ISdkProxy](#)

Proxy to get properties from.

Fields

adRequestTimeoutSeconds

Gets or sets timeout for creative requests.

```
public double adRequestTimeoutSeconds
```

Field Value

[double](#)

The time interval allowed for a creative to load before it is considered a failure.

Remarks

In seconds

See Also

[AdRequestTimeout](#)

adRequestTimeoutSecondsPreRenderContent

Gets or sets timeout for video and interstitial creatives.

```
public double adRequestTimeoutSecondsPreRenderContent
```

Field Value

[double](#)

The time interval allowed for video and interstitial creatives to load.

Remarks

In seconds

See Also

[AdRequestTimeoutPreRenderContent](#)

assignNativeAssetID

Gets or sets whether the asset ID for native ads should be manually assigned.

```
public bool assignNativeAssetID
```

Field Value

[bool](#)

true if IDs should be assigned automatically, **false** if manually.

See Also

[AssignNativeAssetID](#)

debugRequests

Gets or sets debug mode for requests.

```
public bool debugRequests
```

Field Value

[bool](#)

true if debug mode is enabled, **false** otherwise

See Also

[DebugRequests](#)

externalUserIds

Gets or sets external IDs of the user.

```
public List<ExternalUserID> externalUserIds
```

Field Value

[List](#)<[ExternalUserID](#)>

External IDs of the user that could be used for ad targeting.

Remarks

See

https://github.com/InteractiveAdvertisingBureau/openrtb/blob/main/extensions/2.x_official_extensions/eids.md

[↗](#)

See Also

[ExternalUserID](#), [ExternalUserIds](#), [ExternalUserIds](#)

logLevel

Gets or sets the log level for native library.

```
public LogLevel logLevel
```

Field Value

[LogLevel](#)

The desired verbosity of the logs.

See Also

[LogLevel](#)

omSdkVersion

Gets the OM SDK version.

```
public string? omSdkVersion
```

Field Value

[string](#) ↗

The version of native OM SDK library.

See Also

[OmSdkVersion](#)

sdkVersion

Gets the SDK version.

```
public string? sdkVersion
```

Field Value

[string](#) ↗

The version of native SDK library.

See Also

[SdkVersion](#)

timeoutSeconds

Gets or sets request timeout.

```
public double timeoutSeconds
```

Field Value

[double](#)

The timeout for ad requests.

Remarks

In seconds

See Also

[Timeout](#)

Methods

Equals(SdkConfig)

Indicates whether the current object is equal to another object of the same type.

```
public bool Equals(SdkConfig other)
```

Parameters

other [SdkConfig](#)

An object to compare with this object.

Returns

[bool](#)

[true](#) if the current object is equal to the **other** parameter; otherwise, [false](#).

Equals(SdkConfigSnapshot)

Indicates whether the current object is equal to another object of the same type.

```
public bool Equals(SdkConfigSnapshot other)
```

Parameters

other [SdkConfigSnapshot](#)

An object to compare with this object.

Returns

[bool](#)

[true](#) if the current object is equal to the **other** parameter; otherwise, [false](#).

Equals(object?)

Determines whether the specified object is equal to the current object.

```
public override bool Equals(object? obj)
```

Parameters

obj [object](#)

The object to compare with the current object.

Returns

[bool](#)

[true](#) if the specified object is equal to the current object; otherwise, [false](#).

GetHashCode()

Serves as the default hash function.

```
public override int GetHashCode()
```

Returns

[int](#)

A hash code for the current object.

UnequalFields(SdkConfig, string[]?)

Searches for value differences between read and written configs.

```
public IEnumerable<string> UnequalFields(SdkConfig other, string[]? fieldsToIgnore = null)
```

Parameters

other [SdkConfig](#)

Reference config for comparing the snapshot with.

fieldsToIgnore [string](#)[]

What fields should not be returned even when values differ.

Returns

[IEnumerable](#)<[string](#)>

Field (property) names. Occasionally with additional info.

Class SdkProxyExtensions

Namespace: [AppstockSDK.Api](#)

Assembly: Appstock.Core.dll

Extension methods for [ISdkProxy](#).

```
public static class SdkProxyExtensions
```

Inheritance

[object](#) ← SdkProxyExtensions

Inherited Members

[object.Equals\(object\)](#) , [object.Equals\(object, object\)](#) , [object.GetHashCode\(\)](#) ,
[object.GetType\(\)](#) , [object.MemberwiseClone\(\)](#) , [object.ReferenceEquals\(object, object\)](#) ,
[object.ToString\(\)](#)

Methods

Apply([ISdkProxy](#), [SdkConfig](#))

Sets properties in [sdkProxy](#) to values that are set in [sdkConfig](#).

```
public static void Apply(this ISdkProxy sdkProxy, SdkConfig sdkConfig)
```

Parameters

[sdkProxy](#) [ISdkProxy](#)

Proxy to set properties in.

[sdkConfig](#) [SdkConfig](#)

Serializable container of values.

Struct SerializableOptional<T>

Namespace: [AppstockSDK.Api](#)

Assembly: Appstock.Core.dll

Represents [Nullable<T>](#) for simple value types.

```
[Serializable]
public struct SerializableOptional<T> : IEquatable<SerializableOptional<T>> where T
: struct
```

Type Parameters

T

Type of potentially contained value.

Implements

[IEquatable](#)<[SerializableOptional](#)<T>>

Inherited Members

[ValueType.ToString\(\)](#) , [object.Equals\(object, object\)](#) , [object.GetType\(\)](#) ,
[object.ReferenceEquals\(object, object\)](#)

Remarks

Custom property drawer included.

Fields

enabled

Gets or sets if value is present.

```
public bool enabled
```

Field Value

[bool](#)

`true` if `value` is the value of whole property, `false` if the whole property is `null`.

value

Gets or sets value of internal container.

```
public T value
```

Field Value

T

Value container for when `enabled` is `true`.

Remarks

Ignored if `enabled` is `false`.

Methods

Equals(SerializableOptional<T>)

Indicates whether the current object is equal to another object of the same type.

```
public readonly bool Equals(SerializableOptional<T> other)
```

Parameters

`other` `SerializableOptional<T>`

An object to compare with this object.

Returns

`bool`

`true` if the current object is equal to the `other` parameter; otherwise, `false`.

Equals(object?)

Indicates whether this instance and a specified object are equal.

```
public override readonly bool Equals(object? obj)
```

Parameters

obj [object](#)

The object to compare with the current instance.

Returns

[bool](#)

[true](#) if **obj** and this instance are the same type and represent the same value; otherwise, [false](#).

GetHashCode()

Returns the hash code for this instance.

```
public override readonly int GetHashCode()
```

Returns

[int](#)

A 32-bit signed integer that is the hash code for this instance.

Operators

explicit operator T?(SerializableOptional<T>)

Converts [SerializableOptional<T>](#) to a [Nullable<T>](#).

```
public static explicit operator T?(SerializableOptional<T> optional)
```

Parameters

optional [SerializableOptional<T>](#)

The [SerializableOptional<T>](#) to convert.

Returns

T?

The converted [Nullable<T>](#).

implicit operator SerializableOptional<T>(T?)(T?)

Converts [Nullable<T>](#) to a [SerializableOptional<T>](#).

```
public static implicit operator SerializableOptional<T>(T? nullableValue)
```

Parameters

nullableValue T?

The [Nullable<T>](#) to convert.

Returns

[SerializableOptional<T>](#)

The converted [SerializableOptional<T>](#).

Class TargetingData

Namespace: [AppstockSDK.Api](#)

Assembly: Appstock.Core.dll

```
[Serializable]
public class TargetingData : IEquatable<TargetingData>
```

Inheritance

[object](#) ← TargetingData

Implements

[IEquatable](#)<[TargetingData](#)>

Inherited Members

[object.Equals\(object, object\)](#) , [object.GetType\(\)](#) , [object.MemberwiseClone\(\)](#) ,
[object.ReferenceEquals\(object, object\)](#) , [object.ToString\(\)](#)

Fields

coordinate

Gets or sets user's base location.

```
[Tooltip("ORTB: user.geo.lat, user.geo.lon")]
public SerializableOptional<Vector2> coordinate
```

Field Value

[SerializableOptional](#)<[Vector2](#)>

Location of the user's home base.

Remarks

This is not necessarily their current location.

See Also

[Coordinate](#)

domain

Gets or sets app domain.

```
[Header("Application")]
[Tooltip("ORTB: app.domain")]
public string? domain
```

Field Value

[string](#)

Domain of the app (e.g., `mygame.foo.com`).

See Also

[Domain](#)

externalUserIds

Gets or sets external IDs of the user.

```
[Tooltip("ORTB: usr.ext.eids")]
public List<ExternalUserID>? externalUserIds
```

Field Value

[List](#)<[ExternalUserID](#)>

External IDs of the user that could be used for ad targeting.

Remarks

See

https://github.com/InteractiveAdvertisingBureau/openrtb/blob/main/extensions/2.x_official_extensions/eids.md

[↗](#)

See Also

[ExternalUserID](#), [ExternalUserIds](#)

isSubjectToCOPPA

Gets or sets if request is subject to the COPPA.

```
[Header("Regulations")]
[Tooltip("ORTB: regs.coppa")]
```

```
public OptionalBool isSubjectToCOPPA
```

Field Value

[OptionalBool](#)

`true` if this request is subject to the COPPA regulations established by the USA FTC, `false` otherwise.

See Also

[IsSubjectToCOPPA](#)

itunesID

Gets or sets iTunes ID.

```
[Header("Application (iOS)")]
[Tooltip("ORTB: app.bundle")]
public string? itunesID
```

Field Value

[string](#)

The app identifier in iTunes.

See Also

[ItunesID](#)

keywords

Gets or sets keywords.

```
[Tooltip("user.keywords")]
public List<string?>? keywords
```

Field Value

[List<string>](#)

Keywords, interests, or intent.

See Also

[Keywords](#), [AddKeyword\(string\)](#)

publisherName

Gets or sets publisher name.

```
[Tooltip("ORTB: app.publisher.name")]
public string? publisherName
```

Field Value

[string](#) ↗

App's publisher name.

See Also

[PublisherName](#)

sourceApp

Gets or sets source app.

```
[Tooltip("ORTB: imp[].ext.skadn.sourceapp")]
public string? sourceApp
```

Field Value

[string](#) ↗

ID of publisher app in Apple's App Store.

See Also

[SourceApp](#)

storeURL

Gets or sets store URL.

```
[Tooltip("ORTB: app.storeurl")]
public string? storeURL
```

Field Value

[string](#) ↗

App store URL for an installed app.

See Also

[StoreURL](#)

userCustomData

Gets or sets custom data for user.

```
[Header("User")]
[Tooltip("ORTB: user.customdata")]
public string? userCustomData
```

Field Value

[string](#)

Optional feature to pass bidder data that was set in the exchange's cookie.

Remarks

The string must be in base85 cookie safe characters and be in any format.

See Also

[UserCustomData](#)

userExtJson

Gets or sets **ext** content for ORTB **user**.

```
[Header("User (iOS)")]
[Tooltip("ORTB: user.ext")]
public ExtSlot userExtJson
```

Field Value

[ExtSlot](#)

Exchange-specific extensions to OpenRTB.

Remarks

Should be a valid JSON object or array.

See Also

[UserExtJson](#)

Methods

Equals(TargetingData?)

Indicates whether the current object is equal to another object of the same type.

```
public bool Equals(TargetingData? other)
```

Parameters

other [TargetingData](#)

An object to compare with this object.

Returns

[bool](#)

[true](#) if the current object is equal to the **other** parameter; otherwise, [false](#).

Equals(object?)

Determines whether the specified object is equal to the current object.

```
public override bool Equals(object? obj)
```

Parameters

obj [object](#)

The object to compare with the current object.

Returns

[bool](#)

[true](#) if the specified object is equal to the current object; otherwise, [false](#).

GetHashCode()

Serves as the default hash function.

```
public override int GetHashCode()
```

Returns

[int](#)

A hash code for the current object.

UnequalFields(TargetingData, string[]?)

Searches for value differences between read and written data.

```
public IEnumerable<string> UnequalFields(TargetingData other, string[]? fieldsToIgnore = null)
```

Parameters

other [TargetingData](#)

Reference data for comparing with.

fieldsToIgnore [string\[\]](#)

What fields should not be returned even when values differ.

Returns

[IEnumerable](#)<[string](#)>

Field (property) names. Occasionally with additional info.

Class TargetingProxyExtensions

Namespace: [AppstockSDK.Api](#)

Assembly: Appstock.Core.dll

Extension methods for [ITargetingProxy](#).

```
public static class TargetingProxyExtensions
```

Inheritance

[object](#) ← TargetingProxyExtensions

Inherited Members

[object.Equals\(object\)](#) , [object.Equals\(object, object\)](#) , [object.GetHashCode\(\)](#) ,
[object.GetType\(\)](#) , [object.MemberwiseClone\(\)](#) , [object.ReferenceEquals\(object, object\)](#) ,
[object.ToString\(\)](#)

Methods

Apply(ITargetingProxy, TargetingData)

Sets properties in [targetingProxy](#) to values that are set in [targetingData](#).

```
public static void Apply(this ITargetingProxy targetingProxy,  
TargetingData targetingData)
```

Parameters

[targetingProxy](#) [ITargetingProxy](#)

Proxy to set properties in.

[targetingData](#) [TargetingData](#)

Serializable container of values.

TakeSnapshot(ITargetingProxy)

Gets properties from `targetingProxy`.

```
public static TargetingData TakeSnapshot(this ITargetingProxy targetingProxy)
```

Parameters

`targetingProxy` [ITargetingProxy](#)

Proxy to get properties from.

Returns

[TargetingData](#)

Serializable container of values.

Namespace AppstockSDK.Api.Native.Data.Request

Classes

[AdUnitDataExtensions](#)

Extensions for [AdUnitData](#).

Structs

[AdUnitData](#)

Top-level object to build native ad request (aka [INativeAdLoader](#)) from. Describes both WHAT and WHERE to request.

[AssetData](#)

Describes a requested data asset.

[AssetImage](#)

Describes a requested image asset.

[AssetTitle](#)

Describes a requested title asset.

[Assets](#)

A collection of assets to be requested.

[ConfigWarnings](#)

Holds validation warnings for displaying in Unity Editor.

[EventTracker](#)

The event trackers object specifies the types of events the bidder can request to be tracked in the bid response.

[EventTrackers](#)

Collection of event trackers.

[Parameters](#)

Content part of Native Ad request.

Enums

[AssetData.DataType](#)

Type of data asset.

[AssetImage.ImageType](#)

Type of image asset.

[EventTracker.EventType](#)

Type of event available for tracking.

[EventTracker.TrackingMethod](#)

Types of tracking available for the given event.

[Parameters.ContextSubType](#)

Next-level context in which the ad appears.

[Parameters.ContextType](#)

The context in which the ad appears - what type of content is surrounding the ad on the page at a high level.

[Parameters.PlacementType](#)

The FORMAT of the ad, separate from the surrounding context.

Struct AdUnitData

Namespace: [AppstockSDK.Api.Native.Data.Request](#)

Assembly: Appstock.Core.dll

Top-level object to build native ad request (aka [INativeAdLoader](#)) from. Describes both WHAT and WHERE to request.

```
[Serializable]  
public struct AdUnitData
```

Inherited Members

[ValueType.Equals\(object\)](#) , [ValueType.GetHashCode\(\)](#) , [ValueType.ToString\(\)](#) ,
[object.Equals\(object, object\)](#) , [object.GetType\(\)](#) , [object.ReferenceEquals\(object, object\)](#)

Fields

endpointID

Sets the endpoint ID for the ad.

```
[Tooltip("Unique endpoint identifier generated on the Appstock platform's UI.")]  
public string? endpointID
```

Field Value

[string](#)

Unique endpoint identifier generated on the Appstock platform's UI.

parameters

Gets or sets ad parameters.

```
public Parameters parameters
```

Field Value

Parameters

Native ad content parameters.

placementID

Sets the placement ID for the ad.

```
[Tooltip("Unique placement identifier generated on the Appstock platform's UI.")]
public string? placementID
```

Field Value

string

Unique placement identifier generated on the Appstock platform's UI.

Properties

Warnings

Gets the warnings for current state.

```
public readonly IEnumerable<string> Warnings { get; }
```

Property Value

IEnumerable<string>

Warnings for unpopulated or conflicting values inside.

Class AdUnitDataExtensions

Namespace: [AppstockSDK.Api.Native.Data.Request](#)

Assembly: Appstock.Api.dll

Extensions for [AdUnitData](#).

```
public static class AdUnitDataExtensions
```

Inheritance

[object](#) ← AdUnitDataExtensions

Inherited Members

[object.Equals\(object\)](#) , [object.Equals\(object, object\)](#) , [object.GetHashCode\(\)](#) ,
[object.GetType\(\)](#) , [object.MemberwiseClone\(\)](#) , [object.ReferenceEquals\(object, object\)](#) ,
[object.ToString\(\)](#)

Methods

BuildAdLoader(AdUnitData)

Uses a data from [adUnitData](#) to build a loader for native ad.

```
public static INativeAdLoader BuildAdLoader(this AdUnitData adUnitData)
```

Parameters

[adUnitData](#) [AdUnitData](#)

Serializable data container with native ad request settings to build loader for.

Returns

[INativeAdLoader](#)

Built [INativeAdLoader](#).

Struct AssetData

Namespace: [AppstockSDK.Api.Native.Data.Request](#)

Assembly: Appstock.Core.dll

Describes a requested data asset.

```
[Serializable]  
public struct AssetData
```

Inherited Members

[ValueType.Equals\(object\)](#) , [ValueType.GetHashCode\(\)](#) , [ValueType.ToString\(\)](#) ,
[object.Equals\(object, object\)](#) , [object.GetType\(\)](#) , [object.ReferenceEquals\(object, object\)](#)

Fields

dataExt

An optional extension for additional data.

```
[Tooltip("An optional extension for additional data.\nORTB: assets[i].data.ext")]  
public ExtSlot dataExt
```

Field Value

[ExtSlot](#)

This object is a placeholder that may contain custom JSON agreed to by the parties to support flexibility beyond the standard defined in ORTB specification.

Remarks

ORTB: `assets[i].data.ext`

dataType

Gets or sets data type.

```
[Tooltip("Type of the data element supported by the publisher.\nThe publisher can display this information in an appropriate format.\nORTB: assets[i].data.type")]
public AssetData.DataType dataType
```

Field Value

[AssetData.DataType](#)

Type ID of the element supported by the publisher.

The publisher can display this information in an appropriate format.

Remarks

ORTB: `assets[i].data.type`

See Also

[AssetData.DataType](#)

ext

An optional extension for additional data.

```
[Tooltip("An optional extension for additional data.\nORTB: assets[i].ext")]
public ExtSlot ext
```

Field Value

[ExtSlot](#)

This object is a placeholder that may contain custom JSON agreed to by the parties to support flexibility beyond the standard defined in ORTB specification.

Remarks

ORTB: `assets[i].ext`

length

Gets or sets the maximum length.

```
[Tooltip("Maximum length of the text in the element's response.\nORTB:  
assets[i].data.len")]
public SerializableOptional<int> length
```

Field Value

[SerializableOptional<int>](#)

Maximum length of the text in the element's response.

Remarks

ORTB: `assets[i].data.len`

required

Gets or sets if asset is required.

```
[Tooltip("If checked, exchange will not accept a bid without this  
asset.\nORTB: assets[i].required")]
public bool required
```

Field Value

[bool](#)

`true` if required (exchange will not accept a bid without it), `false` otherwise.

Remarks

ORTB: `assets[i].required`

Enum AssetData.DataType

Namespace: [AppstockSDK.Api.Native.Data.Request](#)

Assembly: Appstock.Core.dll

Type of data asset.

```
[Serializable]
public enum AssetData.DataType
```

Fields

Address = 9

Address.

CallToAction = 12

CTA description - descriptive text describing a 'call to action' button for the destination URL.

Custom = 500

Reserved for Exchange specific usage numbered above 500

Description = 2

Descriptive text associated with the product or service being advertised. Longer length of text in response may be truncated or ellipsed by the exchange.

Description2 = 10

Additional descriptive text associated with the product or service being advertised.

DisplayURL = 11

Display URL for the text ad. To be used when sponsoring entity doesn't own the content. IE sponsored by BRAND on SITE (where SITE is transmitted in this field).

Downloads = 5

Number downloads/installs of this product

Likes = 4

Number of social ratings or "likes" of the product being offered to the user.

None = 0

Not assigned.

Phone = 8

Phone number.

Price = 6

Price for product / app / in-app purchase. Value should include currency symbol in localised format.

Rating = 3

Rating of the product being offered to the user. For example an app's rating in an app store from 0-5.

SalePrice = 7

Sale price that can be used together with price to indicate a discounted price compared to a regular price. Value should include currency symbol in localised format.

Sponsored = 1

Sponsored By message where response should contain the brand name of the sponsor.

See Also

[dataType](#)

Struct AssetImage

Namespace: [AppstockSDK.Api.Native.Data.Request](#)

Assembly: Appstock.Core.dll

Describes a requested image asset.

```
[Serializable]  
public struct AssetImage
```

Inherited Members

[ValueType.Equals\(object\)](#) , [ValueType.GetHashCode\(\)](#) , [ValueType.ToString\(\)](#) ,
[object.Equals\(object, object\)](#) , [object.GetType\(\)](#) , [object.ReferenceEquals\(object, object\)](#)

Fields

ext

An optional extension for additional data.

```
[Tooltip("An optional extension for additional data.\nORTB: assets[i].ext")]  
public ExtSlot ext
```

Field Value

[ExtSlot](#)

This object is a placeholder that may contain custom JSON agreed to by the parties to support flexibility beyond the standard defined in ORTB specification.

Remarks

ORTB: `assets[i].ext`

height

Gets or sets image height.

```
[Tooltip("Height of the image in pixels.\nORTB: assets[i].img.h")]
public SerializableOptional<int> height
```

Field Value

[SerializableOptional<int>](#)

Height of the image in pixels.

Remarks

ORTB: `assets[i].img.h`

imageExt

An optional extension for additional data.

```
[Tooltip("An optional extension for additional data.\nORTB: assets[i].img.ext")]
public ExtSlot imageExt
```

Field Value

[ExtSlot](#)

This object is a placeholder that may contain custom JSON agreed to by the parties to support flexibility beyond the standard defined in ORTB specification.

Remarks

ORTB: `assets[i].img.ext`

imageType

Gets or sets image type.

```
[Tooltip("Type of the image element supported by the publisher.\nThe publisher can
display this information in an appropriate format.\nORTB: assets[i].img.type")]
public AssetImage.ImageType imageType
```

Field Value

[AssetImage.ImageType](#)

Type ID of the image element supported by the publisher.

The publisher can display this information in an appropriate format.

Remarks

ORTB: `assets[i].img.type`

See Also

[AssetImage.ImageType](#)

mimeTypes

Gets or sets mime types.

```
[Tooltip("Whitelist of content MIME types supported.\nORTB: assets[i].img.mimes")]
public string[]? mimeTypes
```

Field Value

[string\[\]](#)

Whitelist of content MIME types supported.

Remarks

ORTB: `assets[i].img.mimes`

minSize

Gets or sets minimal image size.

```
[Tooltip("The minimum requested width and height of the image in pixels.\nThis
option should be used for any rescaling of images by the client.\nORTB:
assets[i].img.wmin, assets[i].img.hmin")]
public Vector2Int minSize
```

Field Value

[Vector2Int](#)

The minimum requested width and height of the image in pixels.

This option should be used for any rescaling of images by the client.

Remarks

ORTB: `assets[i].img.wmin, assets[i].img.hmin`

required

Gets or sets if asset is required.

```
[Tooltip("If checked, exchange will not accept a bid without this  
asset.\nORTB: assets[i].required")]  
public bool required
```

Field Value

[bool](#)

`true` if required (exchange will not accept a bid without it), `false` otherwise.

Remarks

ORTB: `assets[i].required`

width

Gets or sets image width.

```
[Tooltip("Width of the image in pixels.\nORTB: assets[i].img.w")]  
public SerializableOptional<int> width
```

Field Value

[SerializableOptional<int>](#)

Width of the image in pixels.

Remarks

ORTB: `assets[i].img.w`

Enum AssetImage.ImageType

Namespace: [AppstockSDK.Api.Native.Data.Request](#)

Assembly: Appstock.Core.dll

Type of image asset.

```
[Serializable]
public enum AssetImage.ImageType
```

Fields

Custom = 500

Reserved for Exchange specific usage numbered above 500.

Icon = 1

Icon image.

Main = 3

Large image preview for the ad.

None = 0

Not assigned.

See Also

[imageType](#)

Struct AssetTitle

Namespace: [AppstockSDK.Api.Native.Data.Request](#)

Assembly: Appstock.Core.dll

Describes a requested title asset.

```
[Serializable]  
public struct AssetTitle
```

Inherited Members

[ValueType.Equals\(object\)](#) , [ValueType.GetHashCode\(\)](#) , [ValueType.ToString\(\)](#) ,
[object.Equals\(object, object\)](#) , [object.GetType\(\)](#) , [object.ReferenceEquals\(object, object\)](#)

Fields

length

Gets or sets the maximum length.

```
[Tooltip("Maximum length of the text in the title element.\nORTB:  
assets[i].title.len")]  
public int length
```

Field Value

[int](#)

Maximum length of the text in the title element.

Remarks

Recommended to be 25, 90, or 140.

ORTB: [assets\[i\].title.len](#)

required

Gets or sets if asset is required.

```
[Tooltip("If checked, exchange will not accept a bid without this  
asset.\nORTB: assets[i].required")]  
public bool required
```

Field Value

[bool](#)

`true` if required (exchange will not accept a bid without it), `false` otherwise.

Remarks

ORTB: `assets[i].required`

Struct Assets

Namespace: [AppstockSDK.Api.Native.Data.Request](#)

Assembly: Appstock.Core.dll

A collection of assets to be requested.

```
[Serializable]  
public struct Assets
```

Inherited Members

[ValueType.Equals\(object\)](#) , [ValueType.GetHashCode\(\)](#) , [ValueType.ToString\(\)](#) ,
[object.Equals\(object, object\)](#) , [object.GetType\(\)](#) , [object.ReferenceEquals\(object, object\)](#)

Fields

allowEmpty

Gets or sets if empty collection is a valid value.

```
[Tooltip("Whether collection should be forwarded to native library even  
when empty.")]  
public bool allowEmpty
```

Field Value

[bool](#)

false if empty collection prevents calling the respective setter in native library.

true if native setter should be called even when collection is empty.

data

Gets or sets the data assets.

```
[Tooltip("Data assets to request.")]
```

```
public AssetData[]? data
```

Field Value

[AssetData\[\]](#)

Data assets to request.

See Also

[AssetData](#)

images

Gets or sets the images.

```
[Tooltip("Image assets to request.")]  
public AssetImage[]? images
```

Field Value

[AssetImage\[\]](#)

Image assets to request.

See Also

[AssetImage](#)

titles

Gets or sets the titles.

```
[Tooltip("Title assets to request.")]  
public AssetTitle[]? titles
```

Field Value

[AssetTitle\[\]](#)

Title assets to request.

See Also

[AssetTitle](#)

Properties

Count

Gets the count of assets in collection.

```
public readonly int Count { get; }
```

Property Value

[int](#)

Assets count.

Struct ConfigWarnings

Namespace: [AppstockSDK.Api.Native.Data.Request](#)

Assembly: Appstock.Core.dll

Holds validation warnings for displaying in Unity Editor.

```
[Serializable]
public struct ConfigWarnings
```

Inherited Members

[ValueType.Equals\(object\)](#) , [ValueType.GetHashCode\(\)](#) , [ValueType.ToString\(\)](#) ,
[object.Equals\(object, object\)](#) , [object.GetType\(\)](#) , [object.ReferenceEquals\(object, object\)](#)

Remarks

Custom property drawer included.

Fields

warnings

Gets or sets warnings.

```
public List<string>? warnings
```

Field Value

[List](#)<[string](#)>

Validation warnings by contained class.

Remarks

Set in [OnValidate](#).

Displayed in inspector.

See Also

<https://docs.unity3d.com/Manual/execution-order.html#Editor>

Struct EventTracker

Namespace: [AppstockSDK.Api.Native.Data.Request](#)

Assembly: Appstock.Core.dll

The event trackers object specifies the types of events the bidder can request to be tracked in the bid response.

```
[Serializable]  
public struct EventTracker
```

Inherited Members

[ValueType.Equals\(object\)](#) , [ValueType.GetHashCode\(\)](#) , [ValueType.ToString\(\)](#) ,
[object.Equals\(object, object\)](#) , [object.GetType\(\)](#) , [object.ReferenceEquals\(object, object\)](#)

Fields

eventType

Gets or sets event type.

```
[Tooltip("Type of event available for tracking.\nORTB: eventtrackers[i].event")]  
public EventTracker.EventType eventType
```

Field Value

[EventTracker.EventType](#)

Type of event available for tracking.

Remarks

ORTB: `eventtrackers[i].event`

methods

Gets or sets event tracking methods.

```
[Tooltip("Types of tracking available for the given event.\nORTB:  
eventtrackers[i].methods")]
public EventTracker.TrackingMethod[]? methods
```

Field Value

[TrackingMethod\[\]](#)

Types of tracking available for the given event.

Remarks

ORTB: `eventtrackers[i].methods`

See Also

[EventTracker.TrackingMethod](#)

Enum EventTracker.EventType

Namespace: [AppstockSDK.Api.Native.Data.Request](#)

Assembly: Appstock.Core.dll

Type of event available for tracking.

```
[Serializable]
public enum EventTracker.EventType
```

Fields

Custom = 500

Exchange-specific.

Impression = 1

Impression.

None = 0

Not assigned.

ViewableImpression100 = 3

100% in view for 1 second (ie GroupM standard).

ViewableImpression50 = 2

Visible impression using MRC definition at 50% in view for 1 second.

ViewableVideoImpression50 = 4

Visible impression for video using MRC definition at 50% in view for 2 seconds.

Enum EventTracker.TrackingMethod

Namespace: [AppstockSDK.Api.Native.Data.Request](#)

Assembly: Appstock.Core.dll

Types of tracking available for the given event.

```
[Serializable]
public enum EventTracker.TrackingMethod
```

Fields

Custom = 500

Exchange-specific.

Image = 1

Image-pixel tracking - URL provided will be inserted as a 1x1 pixel at the time of the event.

Js = 2

Javascript-based tracking - URL provided will be inserted as a js tag at the time of the event.

None = 0

Not assigned.

Struct EventTrackers

Namespace: [AppstockSDK.Api.Native.Data.Request](#)

Assembly: Appstock.Core.dll

Collection of event trackers.

```
[Serializable]  
public struct EventTrackers
```

Inherited Members

[ValueType.Equals\(object\)](#) , [ValueType.GetHashCode\(\)](#) , [ValueType.ToString\(\)](#) ,
[object.Equals\(object, object\)](#) , [object.GetType\(\)](#) , [object.ReferenceEquals\(object, object\)](#)

Fields

allowEmpty

Gets or sets if empty collection is a valid value.

```
[Tooltip("Whether collection should be forwarded to native library even  
when empty.")]  
public bool allowEmpty
```

Field Value

[bool](#)

false if empty collection prevents calling the respective setter in native library.

true if native setter should be called even when collection is empty.

elements

```
public EventTracker[]? elements
```

Field Value

[EventTracker\[\]](#)

Native event trackers

Operators

implicit operator EventTrackers(EventTracker[]?)

Defines an implicit conversion of [EventTracker](#) array to a [EventTrackers](#).

```
public static implicit operator EventTrackers(EventTracker[]? elements)
```

Parameters

elements [EventTracker\[\]](#)

The [EventTracker](#) array to convert.

Returns

[EventTrackers](#)

The converted [EventTrackers](#).

See Also

[EventTracker](#)

Struct Parameters

Namespace: [AppstockSDK.Api.Native.Data.Request](#)

Assembly: Appstock.Core.dll

Content part of Native Ad request.

```
[Serializable]
public struct Parameters
```

Inherited Members

[ValueType.Equals\(object\)](#) , [ValueType.GetHashCode\(\)](#) , [ValueType.ToString\(\)](#) ,
[object.Equals\(object, object\)](#) , [object.GetType\(\)](#) , [object.ReferenceEquals\(object, object\)](#)

Fields

assetUrlSupport

Gets or sets aurlsupport flag.

```
[Tooltip("Whether the supply source / impression supports returning an assetsurl
instead of an asset object.\n0RTB: aurlsupport")]
public OptionalBool assetUrlSupport
```

Field Value

[OptionalBool](#)

Whether the supply source / impression supports returning an assetsurl instead of an asset object.

Remarks

ORTB: [aurlsupport](#)

assets

Gets or sets assets.

```
[Tooltip("An array of Asset Objects.\nAny bid response must comply with the array of elements expressed in the bid request.\nORTB: assets")]
public Assets assets
```

Field Value

[Assets](#)

An array of Asset Objects.

Any bid response must comply with the array of elements expressed in the bid request.

Remarks

ORTB: [assets](#)

contextSubType

Gets or sets context subtype.

```
[Tooltip("A more detailed context in which the ad appears\nORTB: contextsubtype")]
public Parameters.ContextSubType contextSubType
```

Field Value

[Parameters.ContextSubType](#)

A more detailed context in which the ad appears

Remarks

ORTB: [contextsubtype](#)

See Also

[Parameters.ContextSubType](#)

contextType

Gets or sets context type.

```
[Tooltip("The context in which the ad appears.\n0RTB: context")]
public Parameters.ContextType contextType
```

Field Value

[Parameters.ContextType](#)

The context in which the ad appears.

Remarks

ORTB: [context](#)

See Also

[Parameters.ContextType](#)

dUrlSupport

Gets or sets durlsupport flag.

```
[Tooltip("Whether the supply source / impression supports returning a dco url
instead of an asset object.\n0RTB: durlsupport")]
public OptionalBool dUrlSupport
```

Field Value

[OptionalBool](#)

Whether the supply source / impression supports returning a dco url instead of an asset object.

Remarks

ORTB: [durlsupport](#)

eventTrackers

Gets or sets event trackers.

```
[Tooltip("Specifies what type of event tracking is supported.\n0RTB:
eventtrackers")]
public
```

```
public EventTrackers eventTrackers
```

Field Value

[EventTrackers](#)

Specifies what type of event tracking is supported.

Remarks

ORTB: `eventtrackers`

See Also

[EventTracker](#)

ext

An optional extension for additional data.

```
[Tooltip("An optional extension for additional data.\nORTB: ext")]
public ExtSlot ext
```

Field Value

[ExtSlot](#)

This object is a placeholder that may contain custom JSON agreed to by the parties to support flexibility beyond the standard defined in ORTB specification.

Remarks

ORTB: `ext`

placementCount

Gets or sets placements count.

```
[Tooltip("The number of identical placements in this Layout.\nORTB: plcmtnum")]
public SerializableOptional<int> placementCount
```

Field Value

[SerializableOptional<int>](#)

The number of identical placements in this Layout.

Remarks

ORTB: `plcmtcnt`

placementType

Gets or sets placement type.

```
[Tooltip("The design/format/layout of the ad unit.\nORTB: plcmttype")]
public Parameters.PlacementType placementType
```

Field Value

[Parameters.PlacementType](#)

The design/format/layout of the ad unit.

Remarks

ORTB: `plcmttype`

See Also

[Parameters.PlacementType](#)

privacy

Gets or sets privacy support flag.

```
[Tooltip("Set to 1 when the native ad supports buyer-specific privacy
notice.\nORTB: privacy")]
public OptionalBool privacy
```

Field Value

OptionalBool

Set to 1 when the native ad supports buyer-specific privacy notice.

Remarks

ORTB: `privacy`

sequence

Gets or sets sequence number.

```
[Tooltip("0 for the first ad, 1 for the second ad, and so on.\nORTB: seq")]
public SerializableOptional<int> sequence
```

Field Value

[SerializableOptional<int>](#)

0 for the first ad, 1 for the second ad, and so on.

Remarks

ORTB: `seq`

See Also

[parameters](#)

Enum Parameters.ContextSubType

Namespace: [AppstockSDK.Api.Native.Data.Request](#)

Assembly: Appstock.Core.dll

Next-level context in which the ad appears.

```
public enum Parameters.ContextSubType
```

Fields

AppStore = 31

Application store/marketplace.

Article = 11

Primarily article content (which of course could include images, etc as part of the article).

Audio = 13

Primarily audio content.

ChatInstantMessage = 22

Primarily chat/IM content.

Custom = 500

To be defined by the exchange.

Email = 21

Primarily email content.

General = 10

General or mixed content.

Image = 14

Primarily image content.

None = 0

Not assigned.

ReviewSite = 32

Product reviews site primarily (which may sell product secondarily).

SellingProduct = 30

Content focused on selling products, whether digital or physical.

Social = 20

General social content such as a general social network.

UserGenerated = 15

User-generated content - forums, comments, etc.

Video = 12

Primarily video content.

Remarks

This reflects the primary context, and does not imply no presence of other elements.

See Also

[contextSubType](#)

Enum Parameters.ContextType

Namespace: [AppstockSDK.Api.Native.Data.Request](#)

Assembly: Appstock.Core.dll

The context in which the ad appears - what type of content is surrounding the ad on the page at a high level.

```
[Serializable]  
public enum Parameters.ContextType
```

Fields

Content = 1

Content-centric context such as newsfeed, article, image gallery, video gallery, or similar.

Custom = 500

To be defined by the exchange.

None = 0

Not assigned.

Product = 3

Product context such as product listings, details, recommendations, reviews, or similar.

Social = 2

Social-centric context such as social network feed, email, chat, or similar.

See Also

[contextType](#)

Enum Parameters.PlacementType

Namespace: [AppstockSDK.Api.Native.Data.Request](#)

Assembly: Appstock.Core.dll

The FORMAT of the ad, separate from the surrounding context.

```
[Serializable]  
public enum Parameters.PlacementType
```

Fields

AtomicContent = 2

In the atomic unit of the content - IE in the article page or single image page.

Custom = 500

To be defined by the exchange.

FeedContent = 1

In the feed of content - for example as an item inside the organic feed/grid/listing/carousel.

None = 0

Not assigned.

OutsideContent = 3

Outside the core content - for example in the ads section on the right rail, as a banner-style placement near the content, etc.

RecommendationWidget = 4

Recommendation widget, most commonly presented below the article content.

See Also

[placementType](#)

Namespace AppstockSDK.Api.Native.Data. Response

Interfaces

[IDataContent](#)

Corresponds to the Data Object in the request, with the value filled in.

[IImageContent](#)

Corresponds to the Image Object in the request, with the value filled in.

[INativeAd](#)

Native object that exposes properties of the native ad response.

[ITitleContent](#)

Corresponds to the Title Object in the request, with the value filled in.

Enums

[DataContentType](#)

Type of data asset.

[ImageContentType](#)

Type of image asset.

Enum DataContentType

Namespace: [AppstockSDK.Api.Native.Data.Response](#)

Assembly: Appstock.Core.dll

Type of data asset.

```
[Serializable]
public enum DataContentType
```

Fields

Address = 9

Address.

CallToAction = 12

CTA description - descriptive text describing a 'call to action' button for the destination URL.

Custom = 500

Reserved for Exchange specific usage numbered above 500

Description = 2

Descriptive text associated with the product or service being advertised. Longer length of text in response may be truncated or ellipsed by the exchange.

Description2 = 10

Additional descriptive text associated with the product or service being advertised.

DisplayURL = 11

Display URL for the text ad. To be used when sponsoring entity doesn't own the content. IE sponsored by BRAND on SITE (where SITE is transmitted in this field).

Downloads = 5

Number downloads/installs of this product

Likes = 4

Number of social ratings or "likes" of the product being offered to the user.

Phone = 8

Phone number.

Price = 6

Price for product / app / in-app purchase. Value should include currency symbol in localised format.

Rating = 3

Rating of the product being offered to the user. For example an app's rating in an app store from 0-5.

SalePrice = 7

Sale price that can be used together with price to indicate a discounted price compared to a regular price. Value should include currency symbol in localised format.

Sponsored = 1

Sponsored By message where response should contain the brand name of the sponsor.

Undefined = 0

Not assigned.

See Also

[dataType](#)

[AssetData.DataType](#)

Interface IDataContent

Namespace: [AppstockSDK.Api.Native.Data.Response](#)

Assembly: Appstock.Core.dll

Corresponds to the Data Object in the request, with the value filled in.

```
public interface IDataContent : IDisposable
```

Inherited Members

[IDisposable.Dispose\(\)](#) ↗

Properties

DataType

Gets or sets data type.

```
DataContentType? DataType { get; }
```

Property Value

[DataContentType?](#)

The type of data element.

See Also

[dataType](#)

Value

Gets or sets data value.

```
string? Value { get; }
```

Property Value

[string](#)

The formatted string of data to be displayed.

Remarks

Can contain a formatted value such as "5 stars" or "\$10" or "3.4 stars out of 5".

See Also

[AssetData](#)

Interface IImageContent

Namespace: [AppstockSDK.Api.Native.Data.Response](#)

Assembly: Appstock.Core.dll

Corresponds to the Image Object in the request, with the value filled in.

```
public interface IImageContent : IDisposable
```

Inherited Members

[IDisposable.Dispose\(\)](#)

Properties

ImageType

Gets or sets image type.

```
ImageContentType? ImageType { get; }
```

Property Value

[ImageContentType?](#)

The type of image element.

See Also

[imageType](#)

URL

Gets or sets image URL.

```
string? URL { get; }
```

Property Value

[string](#) ↗

URL of the image asset.

See Also

[AssetImage](#)

Interface INativeAd

Namespace: [AppstockSDK.Api.Native.Data.Response](#)

Assembly: Appstock.Core.dll

Native object that exposes properties of the native ad response.

```
public interface INativeAd : IDisposable
```

Inherited Members

[IDisposable.Dispose\(\)](#) ↗

Properties

CallToAction

Gets the [CallToAction](#) text.

```
string? CallToAction { get; }
```

Property Value

[string](#) ↗

[Value](#) of first [IDataContent](#) asset with [DataType](#) equal to [CallToAction](#).

DataObjects

Gets data assets.

```
IEnumerable<IDataContent?> DataObjects { get; }
```

Property Value

[IEnumerable](#) ↗<[IDataContent](#)>

Data elements of ad assets collection.

IconUrl

Gets the [Icon](#) image URL.

```
string? IconUrl { get; }
```

Property Value

[string](#)

[URL](#) of first [IImageContent](#) asset with [ImageType](#) equal to [Icon](#).

ImageUrl

Gets the [Main](#) image URL.

```
string? ImageUrl { get; }
```

Property Value

[string](#)

[URL](#) of first [IImageContent](#) asset with [ImageType](#) equal to [Main](#).

Images

Gets image assets.

```
IEnumerable<IImageContent?> Images { get; }
```

Property Value

[IEnumerable](#)<[IImageContent](#)>

Image elements of ad assets collection.

SponsoredBy

Gets the [Sponsored](#) text.

```
string? SponsoredBy { get; }
```

Property Value

[string](#)

[Value](#) of first [IDataContent](#) asset with [DataType](#) equal to [Sponsored](#).

Title

Gets the title string.

```
string? Title { get; }
```

Property Value

[string](#)

[Text](#) of first [ITitleContent](#) asset.

Titles

Gets title assets.

```
IEnumerable<ITitleContent?> Titles { get; }
```

Property Value

[IEnumerable](#)<[ITitleContent](#)>

Title elements of ad assets collection.

Methods

RegisterView(GameObject, IEnumerable<GameObject>?)

Adds trackers to the view.

```
bool RegisterView(GameObject container, IEnumerable<GameObject>? clickableObjects)
```

Parameters

container [GameObject](#)

The most relevant ancestor ([Transform](#)-wise) of ad elements.

clickableObjects [IEnumerable](#)<[GameObject](#)>

[GameObject](#)s with attached colliders or selectable components.

Returns

[bool](#)

true is tracking started successfully, **false** otherwise.

See Also

<https://docs.unity3d.com/ScriptReference/Collider.html>,

<https://docs.unity3d.com/ScriptReference/Collider2D.html>,

<https://docs.unity3d.com/Packages/com.unity.ugui@3.0/api/UnityEngine.UI.Selectable.html>

Events

OnAdClicked

Fired when ad is clicked.

```
event Action OnAdClicked
```

Event Type

[Action](#)

OnAdExpired

Fired when ad expired.

event Action OnAdExpired

Event Type

[Action ↗](#)

OnAdImpression

Fired when impression is tracked.

event Action OnAdImpression

Event Type

[Action ↗](#)

Interface ITitleContent

Namespace: [AppstockSDK.Api.Native.Data.Response](#)

Assembly: Appstock.Core.dll

Corresponds to the Title Object in the request, with the value filled in.

```
public interface ITitleContent : IDisposable
```

Inherited Members

[IDisposable.Dispose\(\)](#) ↗

Properties

Text

Gets or sets text value.

```
string? Text { get; }
```

Property Value

[string](#) ↗

The text associated with the text element.

See Also

[AssetTitle](#)

Enum ImageContentType

Namespace: [AppstockSDK.Api.Native.Data.Response](#)

Assembly: Appstock.Core.dll

Type of image asset.

```
[Serializable]  
public enum ImageContentType
```

Fields

Custom = 500

Reserved for Exchange specific usage numbered above 500.

Icon = 1

Icon image.

Main = 3

Large image preview for the ad.

See Also

[imageType](#)

[AssetImage.ImageType](#)

Namespace AppstockSDK.Common

Interfaces

[ISdkImp](#)

Builds platform-specific implementations.

[ISdkInitializer](#)

Proxy for a static method in the native SDK library for a specific platform.

Interface ISdkImp

Namespace: [AppstockSDK.Common](#)

Assembly: Appstock.Common.dll

Builds platform-specific implementations.

```
[RequireImplementors]  
public interface ISdkImp
```

Properties

SdkInitializer

Gets SDK Initializer object.

```
ISdkInitializer SdkInitializer { get; }
```

Property Value

[ISdkInitializer](#)

Proxy for a static method in the native SDK library for a specific platform.

SdkProxy

Gets SDK proxy object.

```
ISdkProxy SdkProxy { get; }
```

Property Value

[ISdkProxy](#)

Managed object that exposes global settings of native SDK.

TargetingProxy

Gets SDK targeting proxy object.

```
ITargetingProxy TargetingProxy { get; }
```

Property Value

[ITargetingProxy](#)

Managed object that exposes targeting settings of native SDK.

Methods

CreateBanner(AdSize)

Creates a banner of specified size.

```
IBannerAd CreateBanner(AdSize adSize)
```

Parameters

[adSize](#) [AdSize](#)

Size of the banner view.

Returns

[IBannerAd](#)

Managed object that exposes controls over native ad view.

CreateInterstitial()

Creates an interstitial ad unit.

```
IInterstitialAd CreateInterstitial()
```

Returns

[IInterstitialAd](#)

Managed object that exposes controls over native interstitial ad unit.

CreateNativeAdLoader(AdUnitData)

Creates a loader for native ad.

```
INativeAdLoader CreateNativeAdLoader(AdUnitData adUnitData)
```

Parameters

[adUnitData AdUnitData](#)

Serializable template for native ad request.

Returns

[INativeAdLoader](#)

Managed object that exposes controls over native ad loader.

CreateRewarded()

Creates a rewarded ad unit.

```
IRewardedAd CreateRewarded()
```

Returns

[IRewardedAd](#)

Managed object that exposes controls over native rewarded ad unit.

Interface ISdkInitializer

Namespace: [AppstockSDK.Common](#)

Assembly: Appstock.Common.dll

Proxy for a static method in the native SDK library for a specific platform.

```
public interface ISdkInitializer
```

Methods

InitializeSdk(string)

Initialize the SDK.

```
void InitializeSdk(string partnerKey)
```

Parameters

partnerKey [string](#)

Determines the Appstock server URL. The Appstock account manager should provide you with this key.

Namespace AppstockSDK.Editor

Classes

[ExtSlotPropertyDrawer](#)

Custom [PropertyDrawer](#) for [ExtSlot](#).

[NativeConfigWarningsPropertyDrawer](#)

Custom [PropertyDrawer](#) for [ConfigWarnings](#).

[SerializableOptionalPropertyDrawer](#)

Custom [PropertyDrawer](#) for [SerializableOptional<T>](#).

Class ExtSlotPropertyDrawer

Namespace: [AppstockSDK.Editor](#)

Assembly: Appstock.Core.Native.Data.Editor.dll

Custom [PropertyDrawer](#) for [ExtSlot](#).

```
[CustomPropertyDrawer(typeof(ExtSlot))]  
public class ExtSlotPropertyDrawer : PropertyDrawer
```

Inheritance

[object](#) ← GUIDrawer ← [PropertyDrawer](#) ← ExtSlotPropertyDrawer

Inherited Members

[PropertyDrawer.CreatePropertyGUI\(SerializedProperty\)](#) ,
[PropertyDrawer.CanCacheInspectorGUI\(SerializedProperty\)](#) , [PropertyDrawer.attribute](#) ,
[PropertyDrawer.fieldInfo](#) , [object.Equals\(object\)](#) , [object.Equals\(object, object\)](#) ,
[object.GetHashCode\(\)](#) , [object.GetType\(\)](#) , [object.MemberwiseClone\(\)](#) ,
[object.ReferenceEquals\(object, object\)](#) , [object.ToString\(\)](#)

Methods

GetPropertyHeight(SerializedProperty, GUIContent)

Specifies how tall the GUI for this field is in pixels.

```
public override float GetPropertyHeight(SerializedProperty property,  
GUIContent label)
```

Parameters

property [SerializedProperty](#)

The SerializedProperty to make the custom GUI for.

label GUIContent

The label of this property.

Returns

[float](#)

The height in pixels.

OnGUI(Rect, SerializedProperty, GUIContent)

Uses IMGUI to draw GUI for the property.

```
public override void OnGUI(Rect position, SerializedProperty property,  
                           GUIContent label)
```

Parameters

position [Rect](#)

Rectangle on the screen to use for the property GUI.

property [SerializedProperty](#)

The SerializedProperty to make the custom GUI for.

label GUIContent

The label of this property.

Class NativeConfigWarningsPropertyDrawer

Namespace: [AppstockSDK.Editor](#)

Assembly: Appstock.Core.Native.Data.Editor.dll

Custom [PropertyDrawer](#) for [ConfigWarnings](#).

```
[CustomPropertyDrawer(typeof(ConfigWarnings))]
public class NativeConfigWarningsPropertyDrawer : PropertyDrawer
```

Inheritance

[object](#) ← GUIDrawer ← [PropertyDrawer](#) ← NativeConfigWarningsPropertyDrawer

Inherited Members

[PropertyDrawer.CreatePropertyGUI\(SerializedProperty\)](#) ,
PropertyDrawer.CanCacheInspectorGUI(SerializedProperty) , PropertyDrawer.attribute ,
PropertyDrawer.fieldInfo , [object.Equals\(object\)](#) , [object.Equals\(object, object\)](#) ,
[object.GetHashCode\(\)](#) , [object.GetType\(\)](#) , [object.MemberwiseClone\(\)](#) ,
[object.ReferenceEquals\(object, object\)](#) , [object.ToString\(\)](#)

Methods

GetPropertyHeight(SerializedProperty, GUIContent)

Specifies how tall the GUI for this field is in pixels.

```
public override float GetPropertyHeight(SerializedProperty property,
GUIContent label)
```

Parameters

property [SerializedProperty](#)

The SerializedProperty to make the custom GUI for.

label GUIContent

The label of this property.

Returns

[float](#)

The height in pixels.

OnGUI(Rect, SerializedProperty, GUIContent)

Uses IMGUI to draw GUI for the property.

```
public override void OnGUI(Rect position, SerializedProperty property,  
                           GUIContent label)
```

Parameters

position [Rect](#)

Rectangle on the screen to use for the property GUI.

property [SerializedProperty](#)

The SerializedProperty to make the custom GUI for.

label GUIContent

The label of this property.

Class SerializableOptionalPropertyDrawer

Namespace: [AppstockSDK.Editor](#)

Assembly: Appstock.Core.Native.Data.Editor.dll

Custom [PropertyDrawer](#) for [SerializableOptional<T>](#).

```
[CustomPropertyDrawer(typeof(SerializableOptional<>), true)]
public class SerializableOptionalPropertyDrawer : PropertyDrawer
```

Inheritance

[object](#) ← GUIDrawer ← [PropertyDrawer](#) ← SerializableOptionalPropertyDrawer

Inherited Members

[PropertyDrawer.CreatePropertyGUI\(SerializedProperty\)](#) ,
[PropertyDrawer.GetPropertyHeight\(SerializedProperty, GUIContent\)](#) ,
PropertyDrawer.CanCacheInInspectorGUI(SerializedProperty) , PropertyDrawer.attribute ,
PropertyDrawer.fieldInfo , [object.Equals\(object\)](#) , [object.Equals\(object, object\)](#) ,
[object.GetHashCode\(\)](#) , [object.GetType\(\)](#) , [object.MemberwiseClone\(\)](#) ,
[object.ReferenceEquals\(object, object\)](#) , [object.ToString\(\)](#)

Methods

OnGUI(Rect, SerializedProperty, GUIContent)

Uses IMGUI to draw GUI for the property.

```
public override void OnGUI(Rect position, SerializedProperty property,
                           GUIContent label)
```

Parameters

position [Rect](#)

Rectangle on the screen to use for the property GUI.

property [SerializedProperty](#)

The SerializedProperty to make the custom GUI for.

label GUIContent

The label of this property.

Namespace AppstockSDK.Unity

Classes

[SdkImp](#)

[ISdkImp](#) stub for platforms other than [iPhonePlayer](#), [Android](#).

Class SdkImp

Namespace: [AppstockSDK.Unity](#)

Assembly: Appstock.Unity.dll

[ISdkImp](#) stub for platforms other than [iPhonePlayer](#), [Android](#).

```
public sealed class SdkImp : ISdkImp
```

Inheritance

[object](#) ← SdkImp

Implements

[ISdkImp](#)

Inherited Members

[object.Equals\(object\)](#), [object.Equals\(object, object\)](#), [object.GetHashCode\(\)](#),
[object.GetType\(\)](#), [object.ReferenceEquals\(object, object\)](#), [object.ToString\(\)](#)

Properties

SdkInitializer

Gets SDK Initializer object.

```
public ISdkInitializer SdkInitializer { get; }
```

Property Value

[ISdkInitializer](#)

Proxy for a static method in the native SDK library for a specific platform.

SdkProxy

Gets SDK proxy object.

```
public ISdkProxy SdkProxy { get; }
```

Property Value

[ISdkProxy](#)

Managed object that exposes global settings of native SDK.

TargetingProxy

Gets SDK targeting proxy object.

```
public ITargetingProxy TargetingProxy { get; }
```

Property Value

[ITargetingProxy](#)

Managed object that exposes targeting settings of native SDK.

Methods

CreateBanner(AdSize)

Creates a banner of specified size.

```
public IBannerAd CreateBanner(AdSize adSize)
```

Parameters

[adSize AdSize](#)

Size of the banner view.

Returns

[IBannerAd](#)

Managed object that exposes controls over native ad view.

CreateInterstitial()

Creates an interstitial ad unit.

```
public IInterstitialAd CreateInterstitial()
```

Returns

[IInterstitialAd](#)

Managed object that exposes controls over native interstitial ad unit.

CreateNativeAdLoader(AdUnitData)

Creates a loader for native ad.

```
public INativeAdLoader CreateNativeAdLoader(AdUnitData adUnitData)
```

Parameters

adUnitData [AdUnitData](#)

Serializable template for native ad request.

Returns

[INativeAdLoader](#)

Managed object that exposes controls over native ad loader.

CreateRewarded()

Creates a rewarded ad unit.

```
public IRewardedAd CreateRewarded()
```

Returns

[IRewardedAd](#)

Managed object that exposes controls over native rewarded ad unit.

Namespace AppstockSDK.iOS

Classes

[SdkImp](#)

[ISdkImp](#) implementation for [iPhonePlayer](#).

Class SdkImp

Namespace: [AppstockSDK.iOS](#)

Assembly: Appstock.iOS.dll

[ISdkImp](#) implementation for [iPhonePlayer](#).

```
public sealed class SdkImp : ISdkImp
```

Inheritance

[object](#) ← SdkImp

Implements

[ISdkImp](#)

Inherited Members

[object.Equals\(object\)](#) , [object.Equals\(object, object\)](#) , [object.GetHashCode\(\)](#) ,
[object.GetType\(\)](#) , [object.ReferenceEquals\(object, object\)](#) , [object.ToString\(\)](#)

Properties

SdkInitializer

Gets SDK Initializer object.

```
public ISdkInitializer SdkInitializer { get; }
```

Property Value

[ISdkInitializer](#)

Proxy for a static method in the native SDK library for a specific platform.

SdkProxy

Gets SDK proxy object.

```
public ISdkProxy SdkProxy { get; }
```

Property Value

[ISdkProxy](#)

Managed object that exposes global settings of native SDK.

TargetingProxy

Gets SDK targeting proxy object.

```
public ITargetingProxy TargetingProxy { get; }
```

Property Value

[ITargetingProxy](#)

Managed object that exposes targeting settings of native SDK.

Methods

CreateBanner(AdSize)

Creates a banner of specified size.

```
public IBannerAd CreateBanner(AdSize adSize)
```

Parameters

`adSize` [AdSize](#)

Size of the banner view.

Returns

[IBannerAd](#)

Managed object that exposes controls over native ad view.

CreateInterstitial()

Creates an interstitial ad unit.

```
public IInterstitialAd CreateInterstitial()
```

Returns

[IInterstitialAd](#)

Managed object that exposes controls over native interstitial ad unit.

CreateNativeAdLoader(AdUnitData)

Creates a loader for native ad.

```
public INativeAdLoader CreateNativeAdLoader(AdUnitData adUnitData)
```

Parameters

adUnitData [AdUnitData](#)

Serializable template for native ad request.

Returns

[INativeAdLoader](#)

Managed object that exposes controls over native ad loader.

CreateRewarded()

Creates a rewarded ad unit.

```
public IRewardedAd CreateRewarded()
```

Returns

[IRewardedAd](#)

Managed object that exposes controls over native rewarded ad unit.