Mobile Social Plugin

Anyone can comment

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Short Overview

Plugin provides the functionality to use Twitter and Facebook api on IOS and Android devices. You can write code once and be sure that it will work the same on your IOS and Android app. However some API actions may looks different, on IOS / Android even if it do absolutely the same for example posting/authorization. You can find out more about differences in API References.

Twitter API includes:

- User Authentication
- Loading User Data
    - id
    - name
    - description
    - screen_name
    - location
    - lang
    - status
    - profile images urls
    - profile images
    - and much more
- Posting
- Posting with image

Facebook API:
Provided facebook api as wrapper class around [Unity Facebook SDK](). Which means all Unity Facebook SDK will be completely available for you.
Wrapper include API for:

- User Authentication
- Loading User Data
    - id
    - name
    - first_name
    - last_name
    - email

        - location
        - locale
        - profile images urls
        - profile images
        - and much more
    - Posting
    - Posting with image
    - Loading friends information

Instagram API

- Share Image
- Share image with text

How to update

1. Version Notes

With every new update I make try to make plugin better. Add new features, improve stability, usability and code base structure.

When new version is available, you can find out what's new in the version and version history by pressing version number on [Asset Store Plugin Page](#):

2. Avoiding conflicts

Sometimes in order to implement new feature or improve code structure I have to change some of plugin files / folder or method names.

It will be of course described in version notes. But if you simple click update in Asset Store version, you may get duplicated or conflicted files.

To avoid this, I strongly recommend to remove all plugin files from your project before update. Currently plugin parts located in:

```
Assets/Extensions/MobileSocialPlugin/
Assets/Extensions/GooglePlayCommon/
Assets/Extensions/StansAssetsPreviewUI/
Assets/Extensions/FlashLikeEvents/
Assets/Plugins/Android
```

If you own another plugins with also have `GooglePlayCommon` folder (this folder is shared between few plugins in order to supply compatibility of android plugins) I also recommend update those plugins too. To avoid conflicts

3. Saving Plugins settings

Plugin setting that was specified in editor GUI earlier will be overridden. So just backup your settings data with stored in files:

```
Assets/Extensions/GooglePlayCommon/Resources/SocialSettings
```

And replace plugin files with your backup after update.

Getting Started

Some of plugin function working out of the box, more advanced function requires additional setup action. I recommend to read Coding Guidelines before you will start to implement social network support to your project.
If you have any difficulties or unexpected errors, feel free to contact support team

Twitter

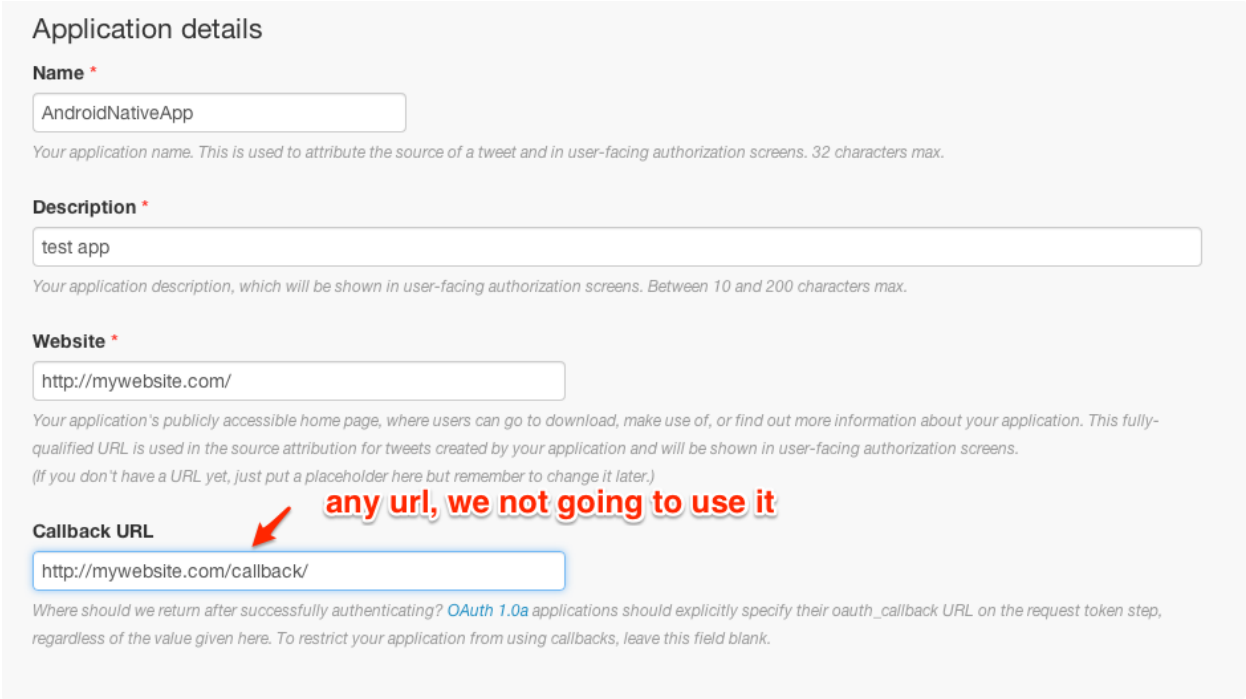
Twitter Setup

In order to implement twitter oAuth in your application you need twitter **consumer key** and **consumer secret** which are used to make twitter API calls. So register a new twitter application and get the keys

1. Go to https://dev.twitter.com/apps/new and register new application. Fill application name, description and website.

2. Give some **dummy url in the callback url field** to make the app as browser app. (If you leave it as blank it will act as Desktop app which won't work in mobile device)

3. Under the **settings** tab upload icon and change the access type to **Read and Write**.



4. Copy **Consumer Key & Consumer Secret key**

Application settings

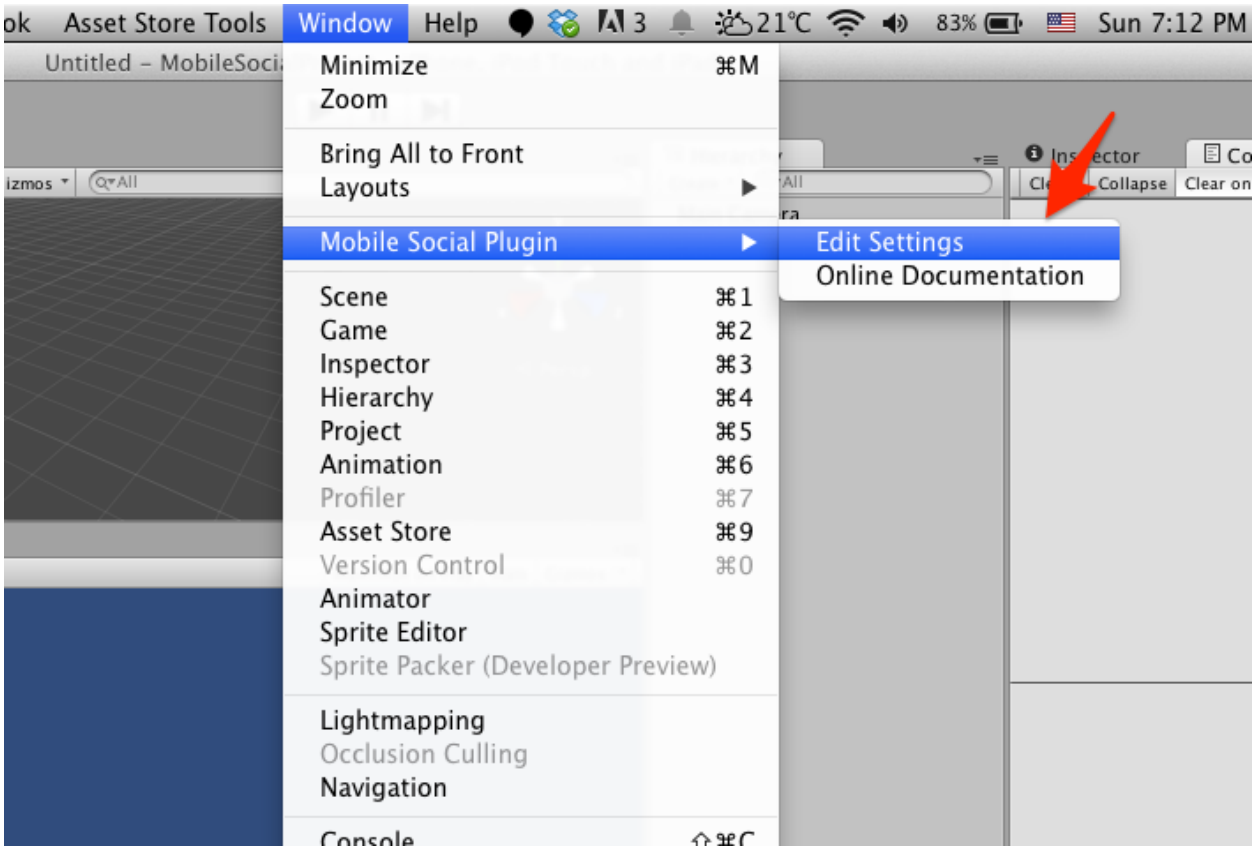
Keep the "API secret" a secret. This key should never be human-readable in your application.

API key	wEvDyAUr2QabVAsWPDiGwg
API secret	igRxZbOrkLQPNLSvibNC3mdNJ5tOlVOPH3HNNKDY0
Access level	Read, write, and direct messages (modify app permissions)
Owner	LacostSt
Owner ID	[redacted]

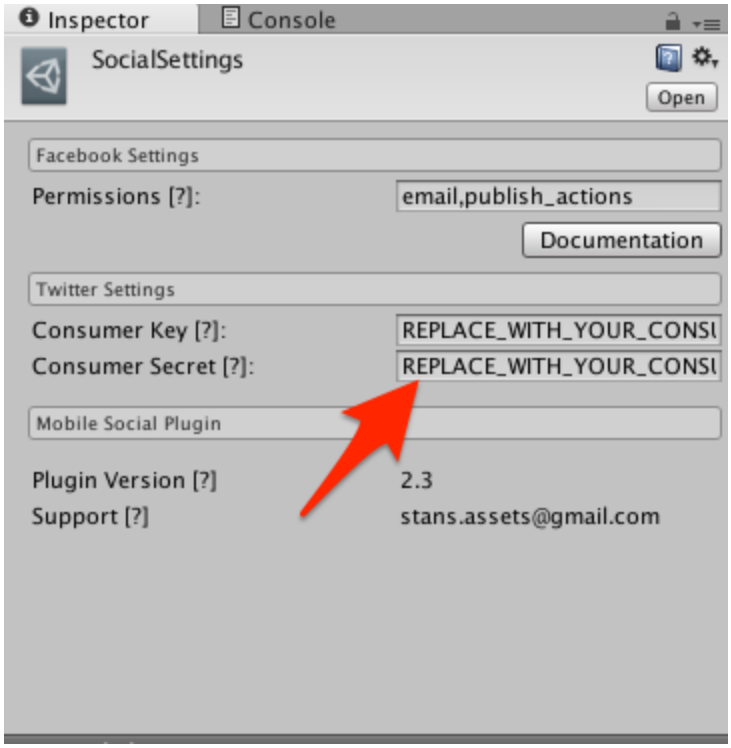
You done. Now you can start using Twitter API in your project using copyed secret keys.

Last step is to specify consumer key and consumer secret in the plugin setting. As option you can also do this using coding, but is much easier to use GUI.

Open Windows → Mobile Social Plugin → Edit Settings



And fill in Consumer key and secret.



Twitter API References

SPTwitter : Singleton<SPTwitter> class.

API methods:

Init twitter consumer key and secret will be used from plugin setting.
You may modify settings in plugin windows:
Windows → Mobile Social Plugin → Edit Settings
Triggers TwitterEvents.TWITTER_INITED event.
public static void Init()

Init twitter controller using consumer key and secret. Triggers TwitterEvents.TWITTER_INITED event.
public static void Init(string consumer_key, string consumer_secret)

Start user authentication. Triggers TwitterEvents.AUTHENTICATION_SUCCEEDED or TwitterEvents.AUTHENTICATION_FAILED Note, that after initialization user can already be authed, so use this method only if after initialization user not authed.

public static void AuthenticateUser()

Loads user data. Triggers TwitterEvents.USER_DATA_LOADED and TwitterEvents.USER_DATA_FAILED_TO_LOAD events.

public static void LoadUserData()

Post a Tweet
public static void Post(string status)
public static void Post(string status, Texture2D texture)

Authenticate a user and then Post using Twitter API.
public TwitterPostingTask PostWithAuthCheck(string status)
public TwitterPostingTask PostWithAuthCheck(string status Texture2D texture)

Resets the user authorization
public static void LogOut()

Get / Set:

Returns twitter controller interface
public static TwitterManagerInterface twitter

TwitterManagerInterface

Get / Set:

True if user authorized
bool IsAuthed

Returns user info if it was successfully loaded
TwitterUserInfo userInfo

TwitterUserInfo : EventDispatcherBase

API methods:

Loads Profile Image. Trigers PROFILE_IMAGE_LOADED event
public void LoadProfileImage()

Loads Profile Background Image. Trigers PROFILE_BACKGROUND_LOADED event
public void LoadBackgroundImage()

Get / Set:

User id
public string id;

Description
public string description;

User name
public string name;

User login

```
public string screen_name;

Current location
public string location;

language code
public string lang;

full user info in JSON format
public string rawJSON;

http and https url to user profile image
public string profile_image_url;
public string profile_image_url_https;

http and https url to user profile background
public string profile_background_image_url;
public string profile_background_image_url_https;

contains user profile images if was previously loaded
public Texture2D profile_image = null;

contains user profile background images if was previously loaded
public Texture2D profile_background = null;

twitter page background color
public Color  profile_background_color = Color.clear;

twitter page text color
public Color  profile_text_color = Color.clear;

friends count
public int  friends_count;

tweets count
public int  statuses_count;

current user status
public TwitterStatus _status
```

TwitterStatus

Get / Set

current status text
public string text;

location
public string geo;

unparsed status response from twitter
public string rawJSON;

TwitterPostingTask

Events

Events fired when the posting task is complete, Event contains TWResul as event data.
BaseEvent.COMPLETE

TWResult

Get / Set

```
true if action was successful
public bool IsSucceeded

contains result responce data
public string  data;
```

Twitter Coding Guidelines

There is two general ways you can go with twitter integration.

1) If you want to implement only posting, and you do not need to know if a user posted a message or cancelled the posting sequence
In this case you can use native platform API.
Advantages:

- You do not need to create your Twitter app
- You do not need to prompt user to authenticate with your app with requested permissions before you can use Twitter API
- User will not leave your app for Twitter authentication.
- Posting looks natively to platform

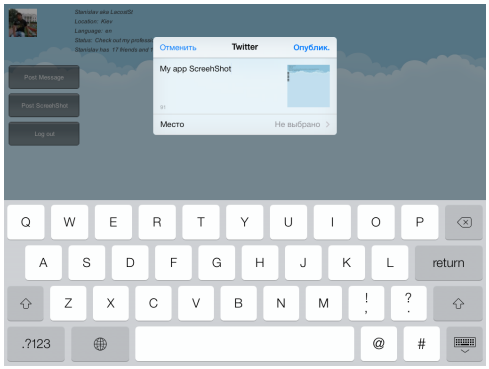
Disadvantages

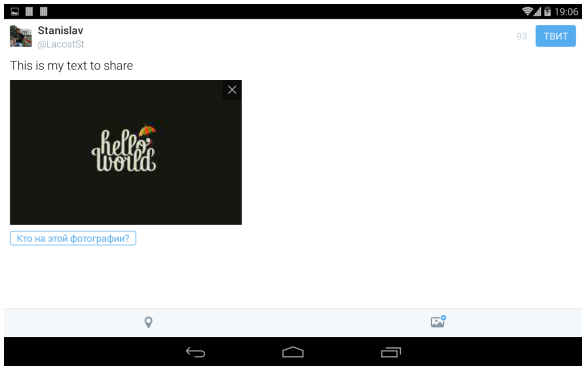
- You can only prompt user to post messages / images to twitter.
- You will not know or be able to respond if the user cancels their post from the twitter app.

If you decide to go this way, you may use the following API calls from anywhere in your project to prompt the user to tweet a message or image, using Twitter's UI:

```
SPShareUtility.TwitterShare("This is my text to share");
SPShareUtility.TwitterShare("This is my text to share", ImageToShare);
```

Result of this api calls would be similar to screenshot below:





You may read more about native shared behavior on different platforms at this section.

2) If you need a lot more, and you want to use all plugin power.

Advantages:

- You will be able use all feature offered by the plugin
- More permissions from user
- Full control of user actions

Disadvantages

- You have to create app on twitter.
- Extra work with rendering message windows, since we are calling api directly

If you decide to go this way. Then you need to complete Setup Steps before you begin to use Twitter API.

I would recommend to create singleton class which will be responsible for all your game twitter interactions.

At the game start you should subscribe to twitter event you interested in and init twitter API by calling:

```
AndroidTwitterManager.instance.Init();
```

And example how you can subscribe to the events.

```
SPTwitter.addEventListener(TwitterEvents.TWITTER_INITED,  OnInit);
SPTwitter.addEventListener(TwitterEvents.AUTHENTICATION_SUCCEEDED,  OnAuth);
SPTwitter.addEventListener(TwitterEvents.AUTHENTICATION_FAILED,  OnAuthFailed);


SPTwitter.addEventListener(TwitterEvents.POST_SUCCEEDED,  OnPost);
SPTwitter.addEventListener(TwitterEvents.POST_FAILED,  OnPostFailed);

SPTwitter.addEventListener(TwitterEvents.USER_DATA_LOADED,  OnUserDataLoaded);
SPTwitter.addEventListener(TwitterEvents.USER_DATA_FAILED_TO_LOAD,
OnUserDataLoadFailed);
```

After Twitter API is inited, you can check if user is already authed (he may complete the auth in previous game sessions.) Here is example how to do this in OnInit Function.

```
    private void OnInit() {
        if(SPTwitter.IsAuthed) {
            //user is authed
            //we can use API calls any time
        } else {
               // user not authed, we need to use authenticate user first  if we want to
       use API
```

```
        }
    }
```

If user is Authenticated after init call, feel free to use any API Methods described in API References. If not, then you should Authenticate before you can call API methods. To authenticate the user you should call:

```
SPTwitter.AuthenticateUser();
```

Example how to subscribe to authentication events:

```
SPTwitter.addEventListener(TwitterEvents.AUTHENTICATION_SUCCEEDED,  OnAuth);
SPTwitter.addEventListener(TwitterEvents.AUTHENTICATION_FAILED,  OnAuthFailed);
```

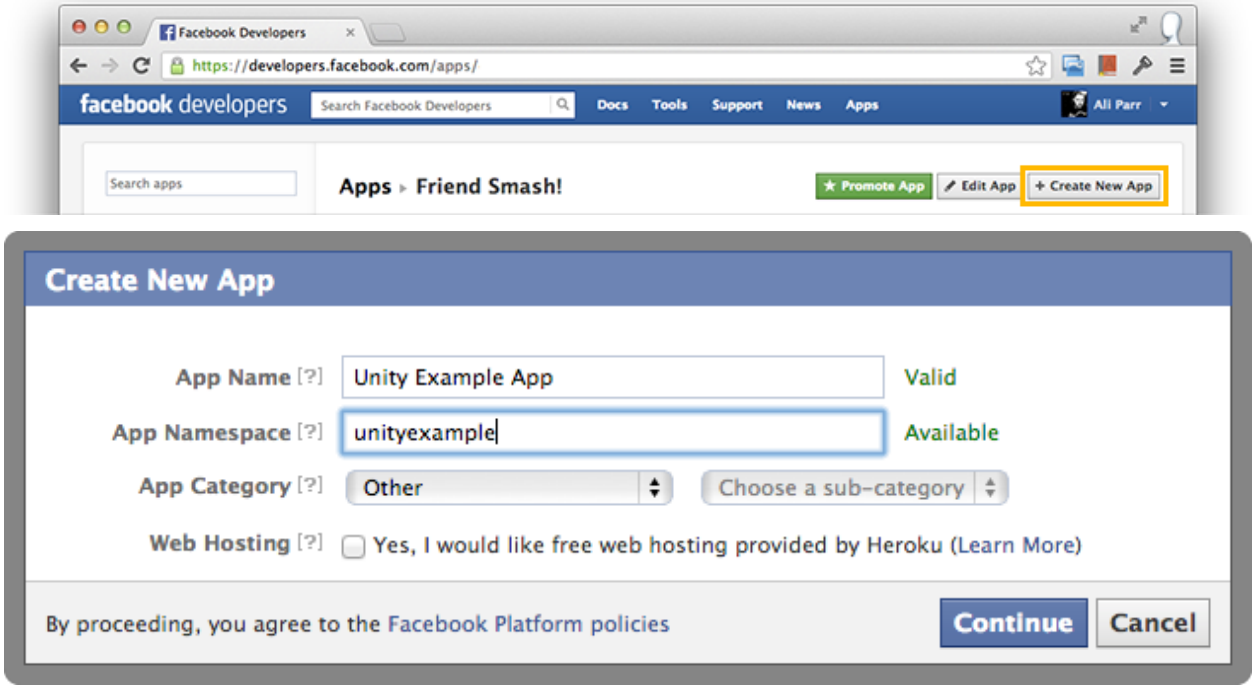
As soon as you done with auth, feel free to use Twitter API.

Do not forget to read about Platform Behavior Differences. Since we using direct API calls we can not force Android for example to draw twitter native post window, all posting will be done in background, so as developer you should render posting window using your game style by your self.

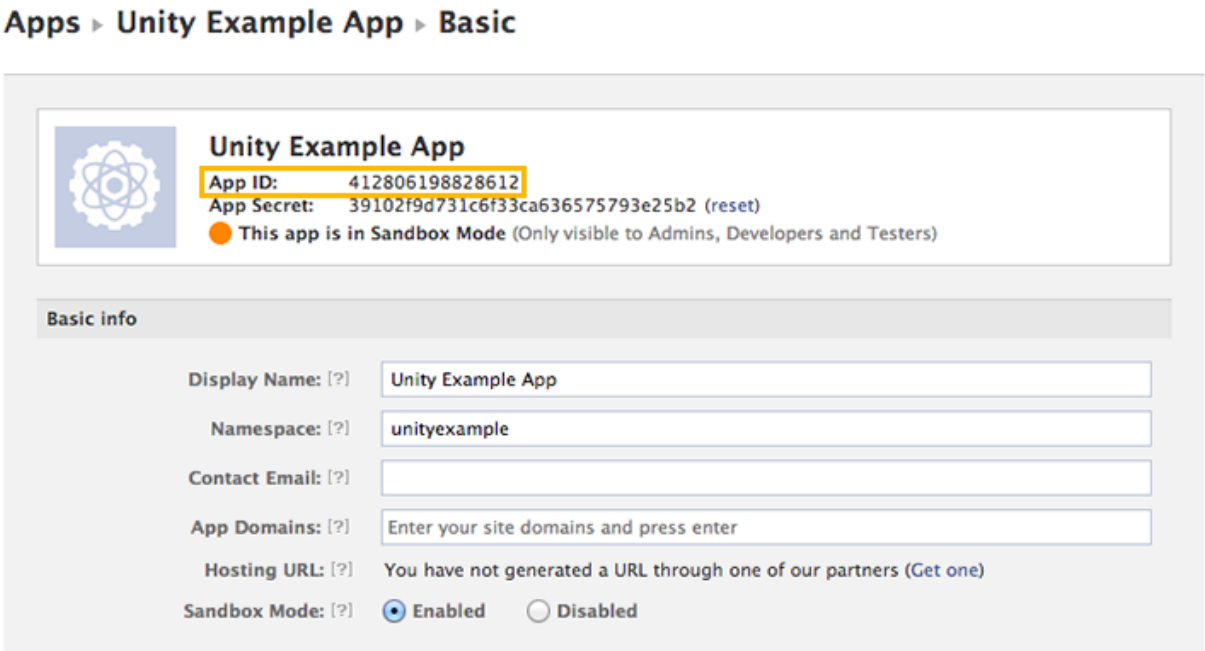
Facebook

Facebook Setup

Step 1: Navigate to your App Dashboard and click '+ Create New App'. In the popup dialog, give your new app a name and optionally a unique namespace, click 'Continue' and follow the subsequent instructions.

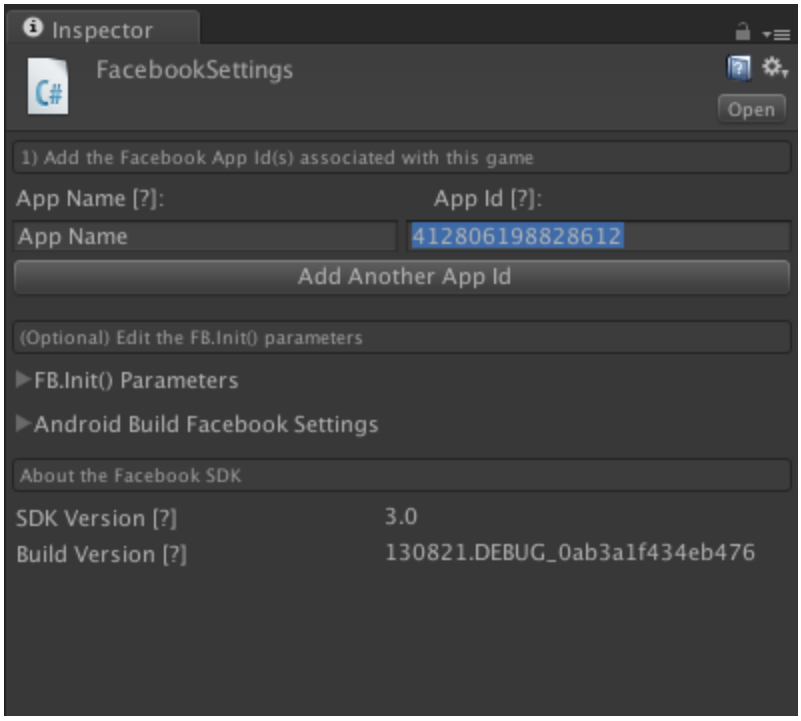


Step 2: Once completed, you'll see your app's Basic Settings page. Here you can find your **App ID**, which is required within your Unity game's configuration, in order to integrate with Facebook.

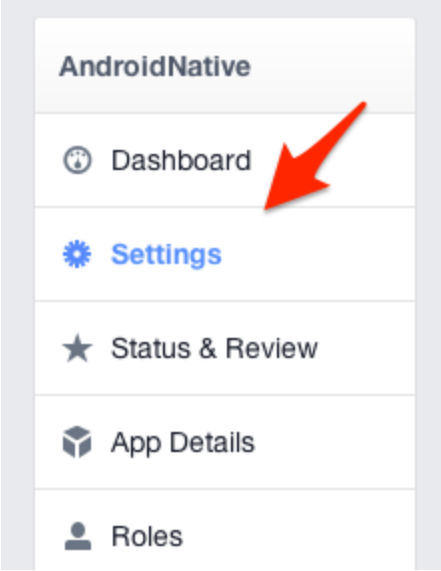


Step 3:

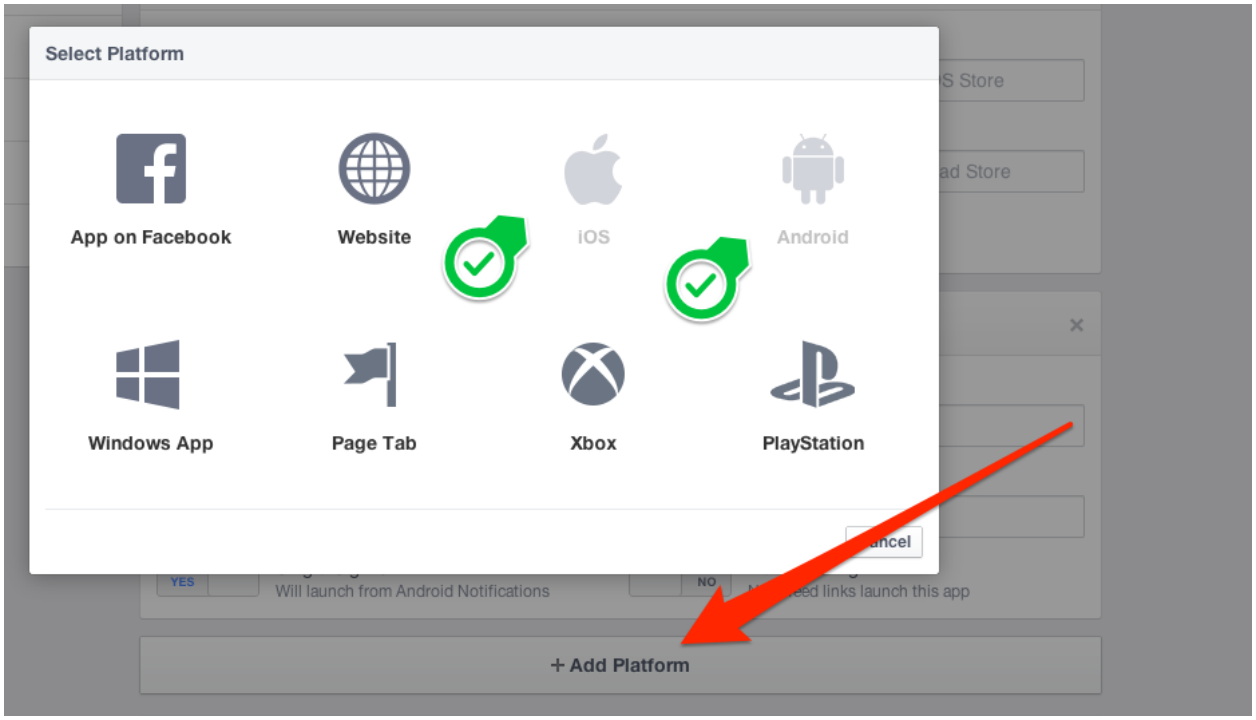
Open project with imported plugin. Select 'Edit Settings' from the 'Facebook' menu.



Go to your app settings on facebook

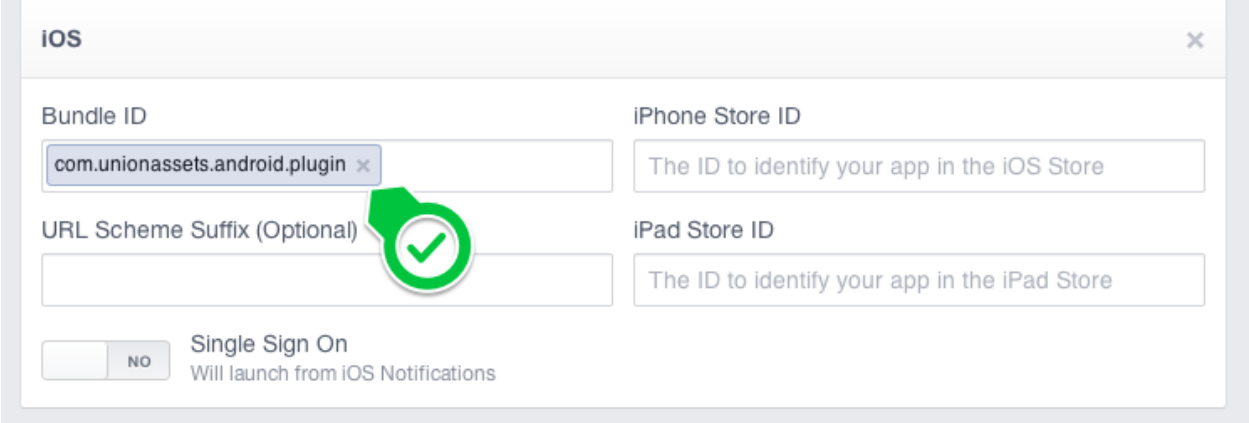


Click on Add Platforms and add IOS and Android platform

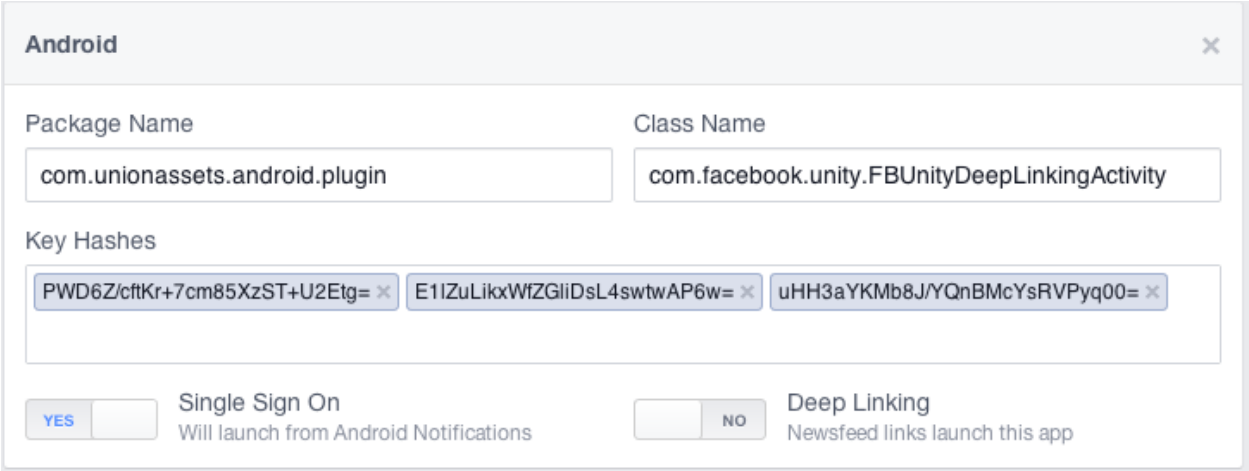


.

IOS Set up Part:
Set your app bundle Id. You can also specify IPhone and IPad Store ID if you have one.



Android Part.
Set your app bundle id (Package Name). Use **com.facebook.unity.FBUnityDeepLinkingActivity** as Class Name. Set Key hash for you app



You can use Debug Key Hash or get one from your app keystore Keystore.
To get Debug Key Hash use:

Note: Those command should be used in terminal.
For Mac OS:

```
keytool -exportcert -alias androiddebugkey -keystore ~/.android/debug.keystore | openssl sha1 -binary | openssl base64
```

For Windows:

1. Download the openssl for windows here
2. now unzip to c drive

3. open cmd prompt
4. type `cd C:\Program Files\Java\jdk1.6.0_26\bin`
5. then type only `keytool -export -alias myAlias -keystore C:\Users\your user name\.android\myKeyStore | C:\openssl-0.9.8k_WIN32\bin\openssl sha1 -binary | C:\openssl-0.9.8k_WIN32\bin\openssl enc -a -e`
6. Done

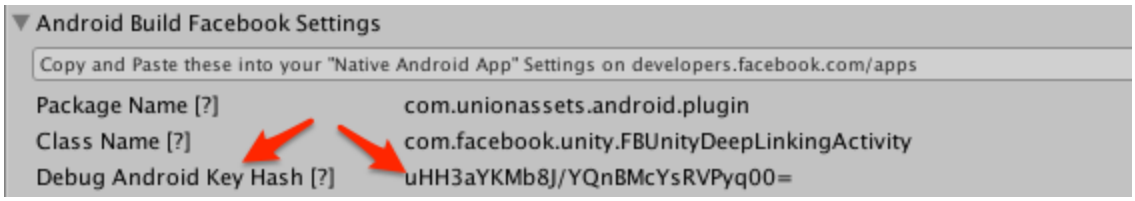
password: **android.**

If you already have your keystore, use this to get Key Hash:
keytool -exportcert -alias <alias_name> -keystore <path_to_keystore> | openssl sha1 -binary | openssl base64

If you don't you can use [this instruction](#) to create your app keystore.

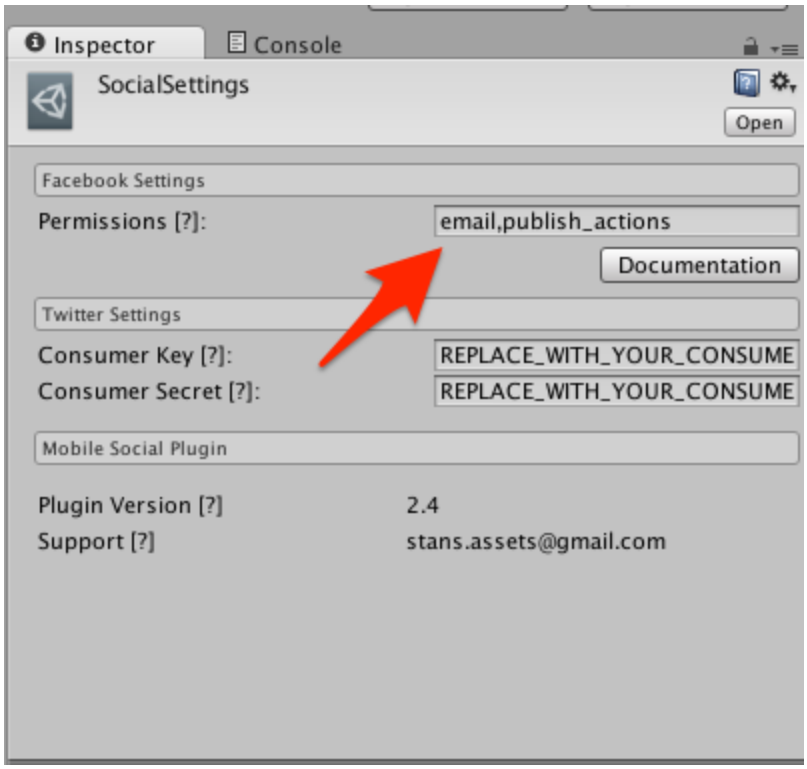
Note: you can create your keystore, in any way you like. Just make sure you specified Key Hash FB app setting accordingly to keystore you building with

Warning: Key Hash you see from Facebook → Edit Settings window. Is Key Hash for debug (unsigned) app. This is not your Key Hash of you building using keystore



Step 4: Specify login scopes

Open plugin setting window. Window → Mobile Social Plugin → Edit Settings



You can leave default permissions, or change if you need more. You can see the here all available scopes and it descriptions.
You can also do this with Login Function. Here ie example

```
SPFacebook.instance.Login("email,publish_actions");
```

If you using function without parameters:

```
SPFacebook.instance.Login();
```

Plugins will use scopes (permissions) specified in plugin settings window.

That's it you can now go to API Reference section to find out how to use Facebook and API in your app.

Facebook API References

SPFacebook : Singletone<SPFacebook> class.

API methods:

```
Init facebook Triggers FacebookEvents.FACEBOOK_INITED event.
public void Init()

Start user authentication with scopes. Triggers
FacebookEvents.AUTHENTICATION_SUCCEEDED or
FacebookEvents.AUTHENTICATION_FAILED Note, that after initialization user can
already be authed, so use this method only if after initialization user not
authed.

If you using methods without parameters, Plugin will use scopes from plugin
settings.

public void Login()

public void Login(string scopes)

Loads user data. Triggers FacebookEvents.USER_DATA_LOADED and
FacebookEvents.USER_DATA_FAILED_TO_LOAD  events.

public static void LoadUserData()

Post to facebook
public void Post (
                    string toId = "",
                    string link = "",
                    string linkName = "",
                    string linkCaption = "",
                    string linkDescription = "",
                    string picture = "",
                    string actionName = "",
                    string actionLink = "",
                    string reference = ""
                 )
public void PostImage(string caption, Texture2D image)

Authenticate a user and then Post using FB API.
public FBPostingTask PostWithAuthCheck(
      string toId = "",
```

```
    string link = "",
    string linkName = "",
    string linkCaption = "",
    string linkDescription = "",
    string picture = "",
    string actionName = "",
    string actionLink = "",
    string reference = ""
    )
```

Sends application app request. Similar to [Unity Facebook API method](#).

```
public void AppRequest(....)
```

Resets the user authorization

```
public static void Logout()
```

Get / Set

True if user authorized

```
public bool IsLoggedIn
```

User id

```
public string UserId
```

Session access token

```
public string AccessToken
```

Returns user info if it was successfully loaded

```
public FacebookUserInfo userInfo
```

Returns friends data if it was successfully loaded

```
public Dictionary<string,  FacebookUserInfo> friends
public List<string> friendsIds
public List<FacebookUserInfo> friendsList
```

FacebookUserInfo : EventDispatcherBase

API methods:

```
Returns profile image url.
public string GetProfileUrl(FacebookProfileImageSize size)

Returns profile image if it was previously loaded
public Texture2D  GetProfileImage(FacebookProfileImageSize size)


Loads Profile Image. Trigers PROFILE_IMAGE_LOADED event
public void LoadProfileImage(FacebookProfileImageSize size)
```

Get / Set:

```
User id
public string id;

User name
public string name;

User first name
public string first_name;

User last name
public string _last_name;

Username
public string _username;

Facebook profile url
public string _profile_url;



location
```

```
public string location;

language code
public string _locale;

full user info in JSON format
public string rawJSON;

gender
private GoogleGenger _gender
```

FBPostingTask

Events

Events is fired when the posting task is complete, Event contains FBResult as event data.
BaseEvent.COMPLETE

Facebook Coding Guidelines

The Facebook API is implemented using Unity Official Facebook SDK

What does it mean?
First of all Unity Facebook SDK will be imported in your project with the plugin. And most of facebook plugin functionality is a wrapper around Unity Facebook implementation.
It also mean that Unity Facebook SDK integrated with the plugin and has no conflicts, whitch makes you able to use it (if for some reason you do not like the way facebook stuff is implemented in this plugin). Or use function from Unity Facebook SDK. Like for example direct API call using FB.AP function.
And of course all other stuff offered by Unity SDK is available for you.

What the difference between Unity SDK and Mobile Social Plugin?
There is couple difference:

- Another workflow.
- Few extra features based on Unity SDK like for example:
    - Posting screenshot in background
    - Posting with auto authentication check
- Few feature not available from Unity SDK like for example:
    - Platform Native Image Posting
    - Platform Native Text Posting
- Ability to use PlayMaker Actions instead coding.
- And all other feature you got with the plugin instead Facebook.

There is two general ways you can go with Facebook integration. Pretty much same as Twitter

1) If you want to implement only posting, and you do not need to know if a user posted the message or cancelled the posting sequence.
In this case you can use native platform API.
Advantages:

- You do not need to create your Facebook app
- You do not need to prompt user to authenticate with your app with requested permissions before you can use Facebook API
- User will not leave your app for Facebook authentication.

- Posting looks natively to platform

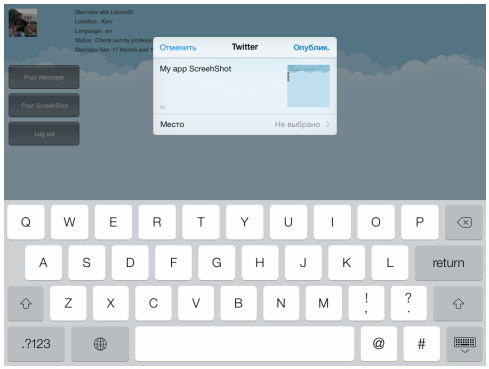
Disadvantages

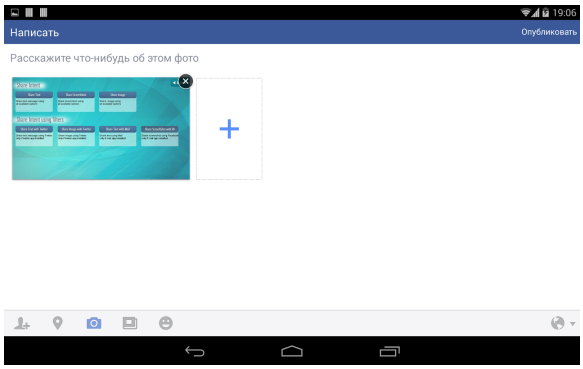
- You can only prompt user to post messages / images to facebook.
- You will not know or be able to respond if the user cancels their post from the facebook app
- You will not able to post text on Android, due to facebook restrictions.

If you decide to go this way, you may use the following API calls from anywhere in your project to prompt the user to tweet a message or image, using Facebook's UI:

```
SPShareUtility.FacebookShare("This is my text to share");
SPShareUtility.FacebookShare("This is my text to share", ImageToShare);
```

Result of this api calls would be similar to screenshot below:





You may read more about native shared behavior on different platforms at this section.

2) If you need a lot more, and you want to use all plugin power.

Advantages:

- You will be able use all feature offered by the plugin
- More permissions from user
- Full control of user actions

Disadvantages

- You have to create app on twitter.
- Extra work with rendering message windows, since we are caling api directly

If you decide to go this way. Then you need to complete Setup Steps before you begin to use Facebook API.

I would recommend to create singleton class which will be responsible for all your game Facebook interactions.

At the game start you should subscribe to Facebook event you interested in and init Facebook API by calling:

```
SPFacebook.instance.Init();
```

And example how you can subscribe to the events.

```
SPFacebook.instance.addEventListener(FacebookEvents.FACEBOOK_INITED,              OnInit);
SPFacebook.instance.addEventListener(FacebookEvents.AUTHENTICATION_SUCCEEDED,       OnAuth);
SPFacebook.instance.addEventListener(FacebookEvents.AUTHENTICATION_FAILED,       OnAuthFailed);


SPFacebook.instance.addEventListener(FacebookEvents.USER_DATA_LOADED,              OnUserDataLoaded);
SPFacebook.instance.addEventListener(FacebookEvents.USER_DATA_FAILED_TO_LOAD,   OnUserDataLoadFailed);

SPFacebook.instance.addEventListener(FacebookEvents.FRIENDS_DATA_LOADED,
OnFriendsDataLoaded);
SPFacebook.instance.addEventListener(FacebookEvents.FRIENDS_FAILED_TO_LOAD,
OnFriendDataLoadFailed);

SPFacebook.instance.addEventListener(FacebookEvents.POST_FAILED,             OnPostFailed);
SPFacebook.instance.addEventListener(FacebookEvents.POST_SUCCEEDED,          OnPost);

SPFacebook.instance.addEventListener(FacebookEvents.GAME_FOCUS_CHANGED,   OnFocusChanged);
```

After the Facebook API is inited, you can check if user is already authed (he may complete the auth in previous game sessions.) Here is example how to do this in OnInit Function.

```
    private void OnInit() {
        if(SPFacebook.instance.IsLoggedIn) {
            //user is authed
            //we can use API calls any time
        } else {
               // user not authed, we need to use authenticate user first  if we want to
       use API
       }
    }
```

If user is Authenticated after init call, feel free to use any API Methods described in API References. If no, then you should Authenticate before you can call API methods. To authenticate the user you should call:

```
SPFacebook.instance.Login();
```

Example how to subscribe to authentication events:

```
SPFacebook.instance.addEventListener(FacebookEvents.AUTHENTICATION_SUCCEEDED,       OnAuth);
SPFacebook.instance.addEventListener(FacebookEvents.AUTHENTICATION_FAILED,       OnAuthFailed);
```

As soon as you done with auth, feel free to use Facebook API.

Do not forget to read about Platform Behavior Differences. uld render posting window using your game style by your self.

More Social Networks

Instagram

Instagram implementation based on platform API.
As result:
1) It works out of the box, no extra work from your side.
2) API Methods will only work if instagram app is installed on device. Otherwise corresponded error code will be returned.

To Share texture or message with texture, you can call this API from any place of your app:

```
SPInstagram.Share(imageForPosting);
SPInstagram.Share(imageForPosting, "I am posting from my app");
```

You may also listen for the posting result. You need to subscribe for posting events. Here is example how to do this:

```
SPInstagram.addEventListener(InstagramEvents.POST_SUCCEEDED, OnPost);
SPInstagram.addEventListener(InstagramEvents.POST_FAILED, OnPostFailed);
```

Note: POST_SUCCEEDED event will be raised even if user cancelled posting inside Instagram app.

If you got Failed Posting event, you can find out reason why. Fail event will contain one of following constants as error code:

```
public enum InstaErrorCode  {
    NO_APPLICATION_INSTALLED,
    USER_CANCELLED,
    SYSTEM_VERSION_ERROR,
    INTERNAL_EXCEPTION
}
```

Example of OnPostFailed method implementation:

```
private void OnPostFailed(CEvent e) {
    InstaErrorCode error = e.data as InstaErrorCode;
    Debug.Log("Posting failed with error code " + error.ToString())
}
```

Native Sharing API References

SPShareUtility :

API methods:

```
Share message to Twitter using native platform API
public  static void TwitterShare(string status)

Share message and texture to Twitter using native platform API
public  static void  TwitterShare(string status, Texture2D texture)


Share message to Facebook using native platform API
public static void FacebookShare(string message)

Share message and texture to Facebook using native platform API
public static void FacebookShare(string message, Texture2D texture)


Share message using all available apps (user will be prompted to create one)
public static void ShareMedia(string caption, string message)


Share message and texture using all available apps (user will be prompted to
create one)
public static void ShareMedia(string caption, string message, Texture2D texture)
```

Platform Behavior differences

At this chapter I will describe how plugin function will behave on different platforms.

Facebook

```
public void Login()
```

IOS:

User will be redirect to the web browsed or installed official facebook app in order to give access to your application

Android:

Same as IOS

Note: After initialization, you do not have to use Login function if the user is already logged in.

```
public void Post (....)
```

IOS:

Facebook style pop-up will appear before posting. User will have ability to modify text before post and cancel/accept post.

Android:

Same as IOS

```
public void PostImage(string caption, Texture2D image)
```

IOS:

All posting happens in background. User will not see any pop-ups.

Android:

Same as IOS

Twitter

```
public static void AuthenticateUser()
```

IOS:

Native dialog will appear to request user permission to use his Twitter account specified in device settings.

Android:

User will be redirect to the web browsed in order to give access to your application.

```
public static void Post(string status)
```

IOS:

IOS style pop-up will appear before posting. User will have ability to modify text before post and cancel/accept post.

Android:

Posting goes in background. User will see preload until posting is in process.

```
public static void Post(string status, Texture2D texture )
```

IOS:

IOS style pop-up will appear before posting. User will have ability to modify text before post and cancel/accept post.

Android:

Posting goes in background.

Native Sharing

IOS:

Sharing to Facebook / Twitter only possible if user specified Facebook / Twitter account info in the device settings. If there is not info, sharing pop up will be created any way, but user will be prompted to fill in account info before sharing.

Android:

Facebook message will be ignored (how ever you steel can share image) due to Facebook policy.

PlayMaker Actions

The plugin now contains playmaker actions.

The actions scripts can be found in the rar archive at:

Assets/Extensions/MobileSocialPlugin/Addons/PlayMakerActions.zip

You can simply un - zip it to the same folder and IOS Native action will appear under playmaker actions menu. You always welcome on the [PlayMaker Actions Forum Thread]() to request new actions or report a bug

The current actions list is:

- **Facebook**
  - MSPFacebookLogIn
  - MSPFacebookLogOut
  - MSPFacebookPost
  - MSPFacebookPostTexture
- **Twitter**
  - MSPTwitterLogIn
  - MSPTwitterPost
  - MSPTwitterPostTexture
  - MSTwitterLogOut
- **Instagram**
  - MSPInstaPostTexture