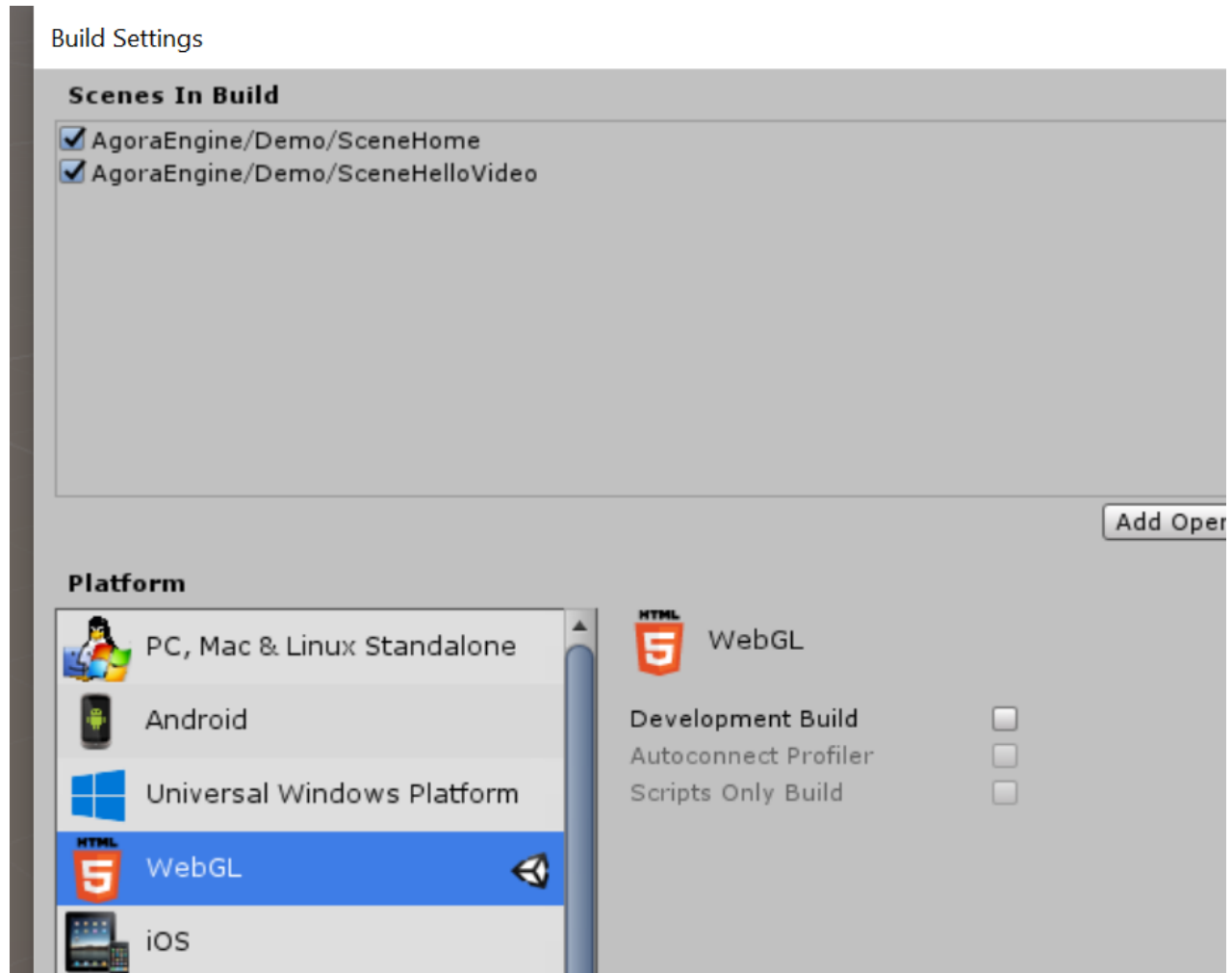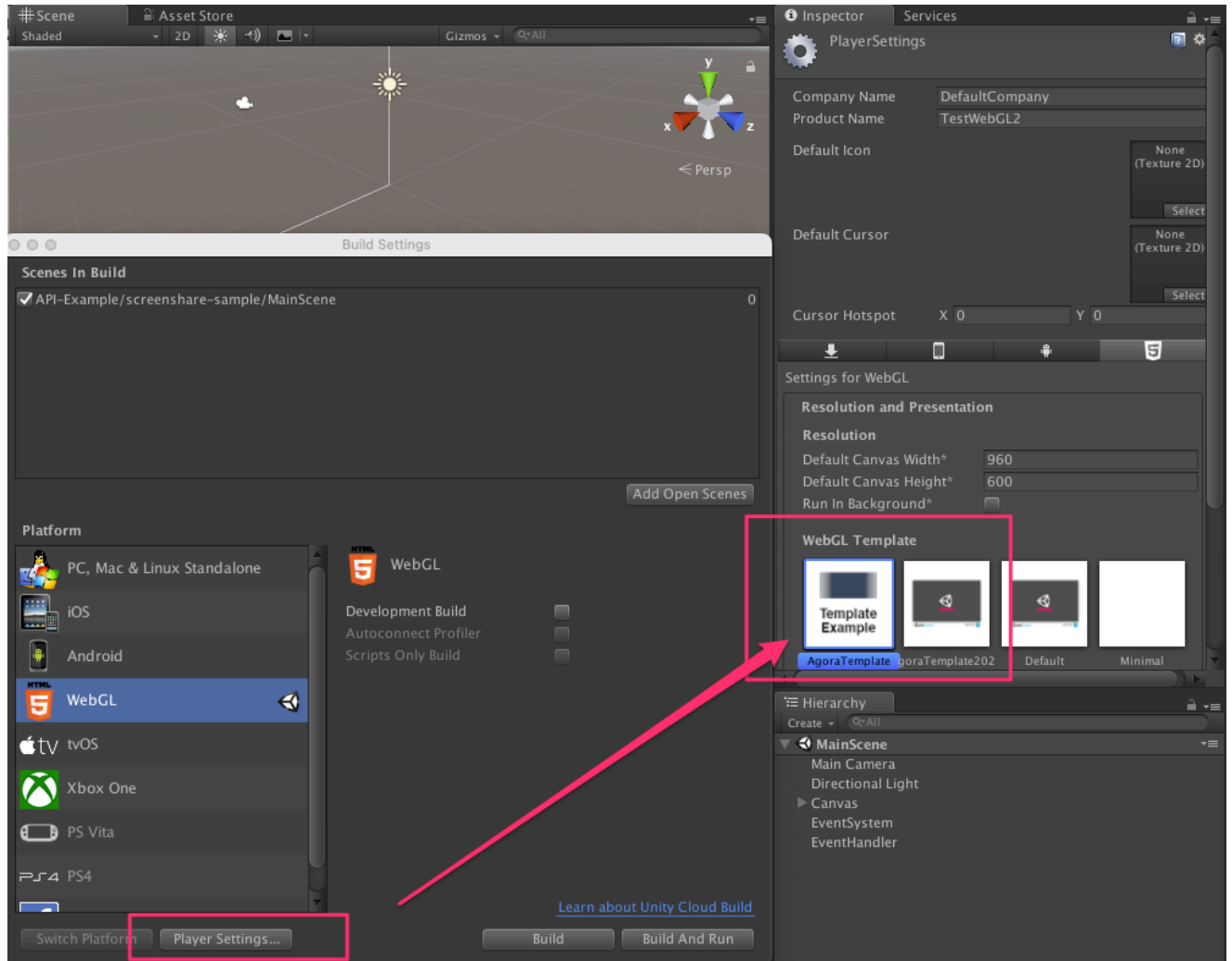# Agora WebGL Build And Run Guide

1. Open the Unity project.
2. If platform is not set to **WebGL**, switch platform to **WebGL**

3. Open *PlayerSettings > Player > Resolution and Presentation*.
   If the Unity version is one of the following 2017, 2018 and 2019, select
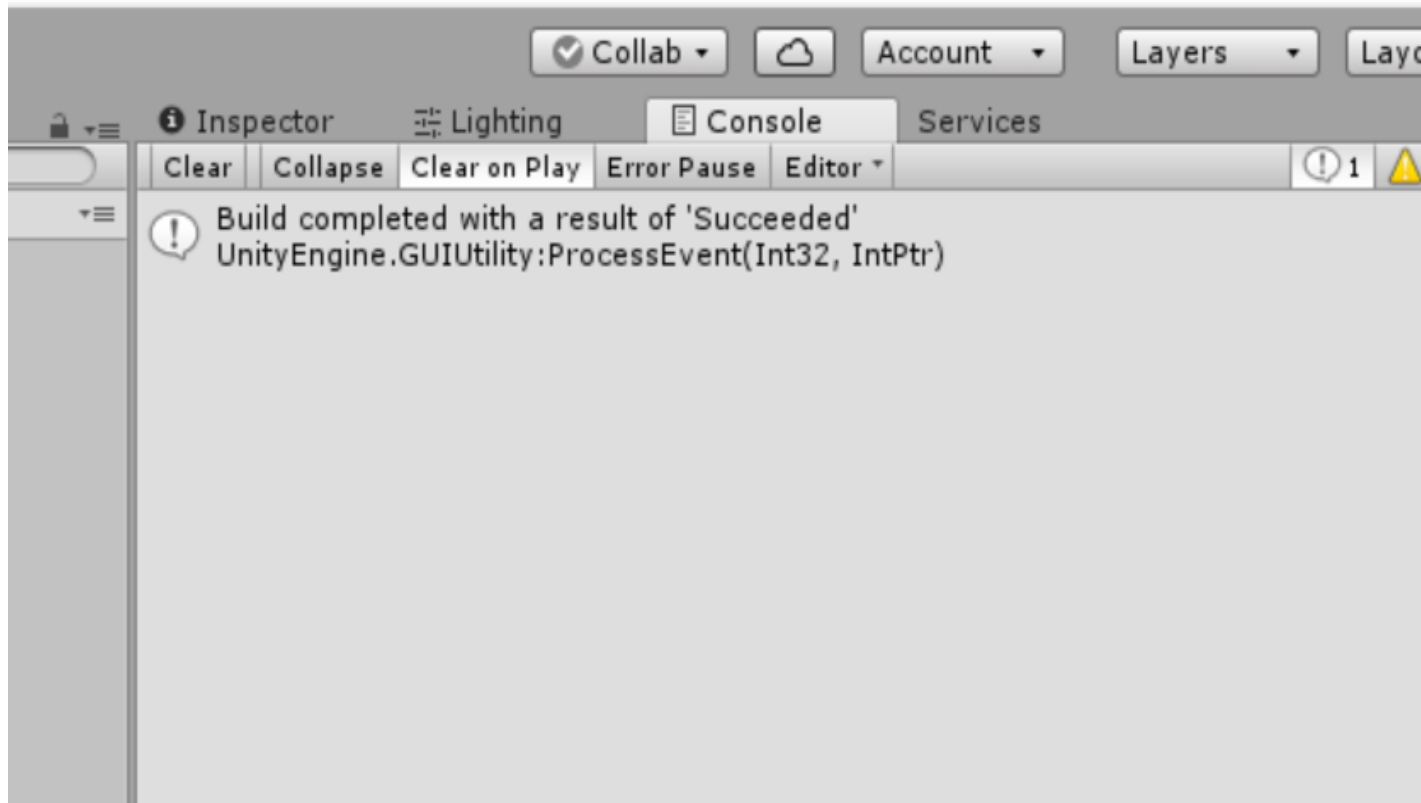   **AgoraTemplate**

If the Unity version is 2020 or above then **AgoraTemplate2020** needs to be selected. Note only LTS are verified for each release. There is no guarantee that the SDK runs on alpha versions of Unity.
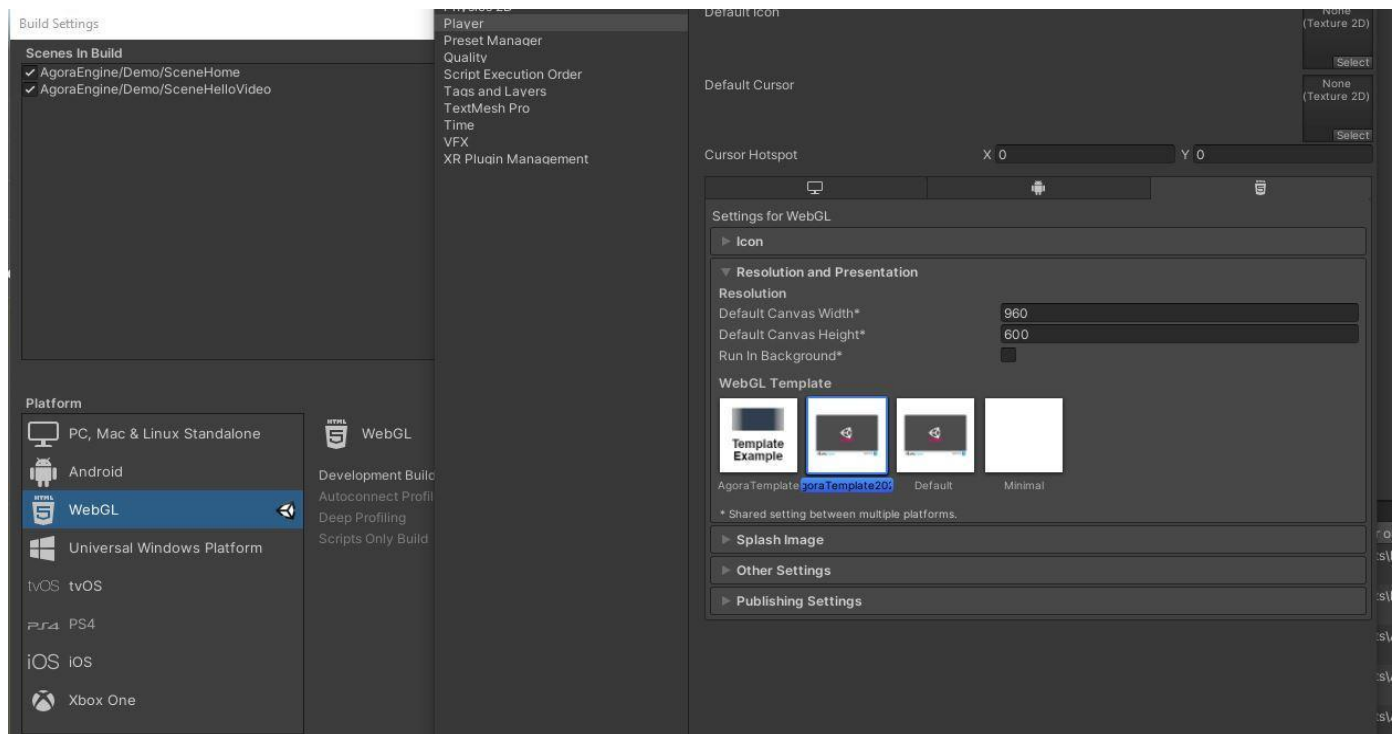
4. Start the build process using **Build and Run**. Note that Unity built-in server works on 2020, but doesn't seem to work on 2017. Please see the Tips section.

5. If the build is successful, the console should have no errors.

Your WebGL project should be running on the default Web browser. We highly encourage the use of Google Chrome as the browser.

Tips on running WebGL project

1. In case of your Web Browser fails to connect to Unity generated server:

This site can't be reached

localhost refused to connect.

Try:

- Checking the connection
- Checking the proxy and the firewall

ERR_CONNECTION_REFUSED

You can run and local server at the build directory manually (MacOS):

`php -S localhost:3000`

or

`python -m SimpleHTTPServer 3000`

Then run the application from http://localhost:3000

2. If you use **AgoraTemplate** while your Editor is version 2020/2021/2022, you will see a white page displaying no WebGL canvas. Use **AgoraTemplate2020** instead.

3. If you see an error message about undefined _createRtcEngine, then you failed to provide a valid template for running WebGL, remember to select AgoraTemplate or AgoraTemplate2020:
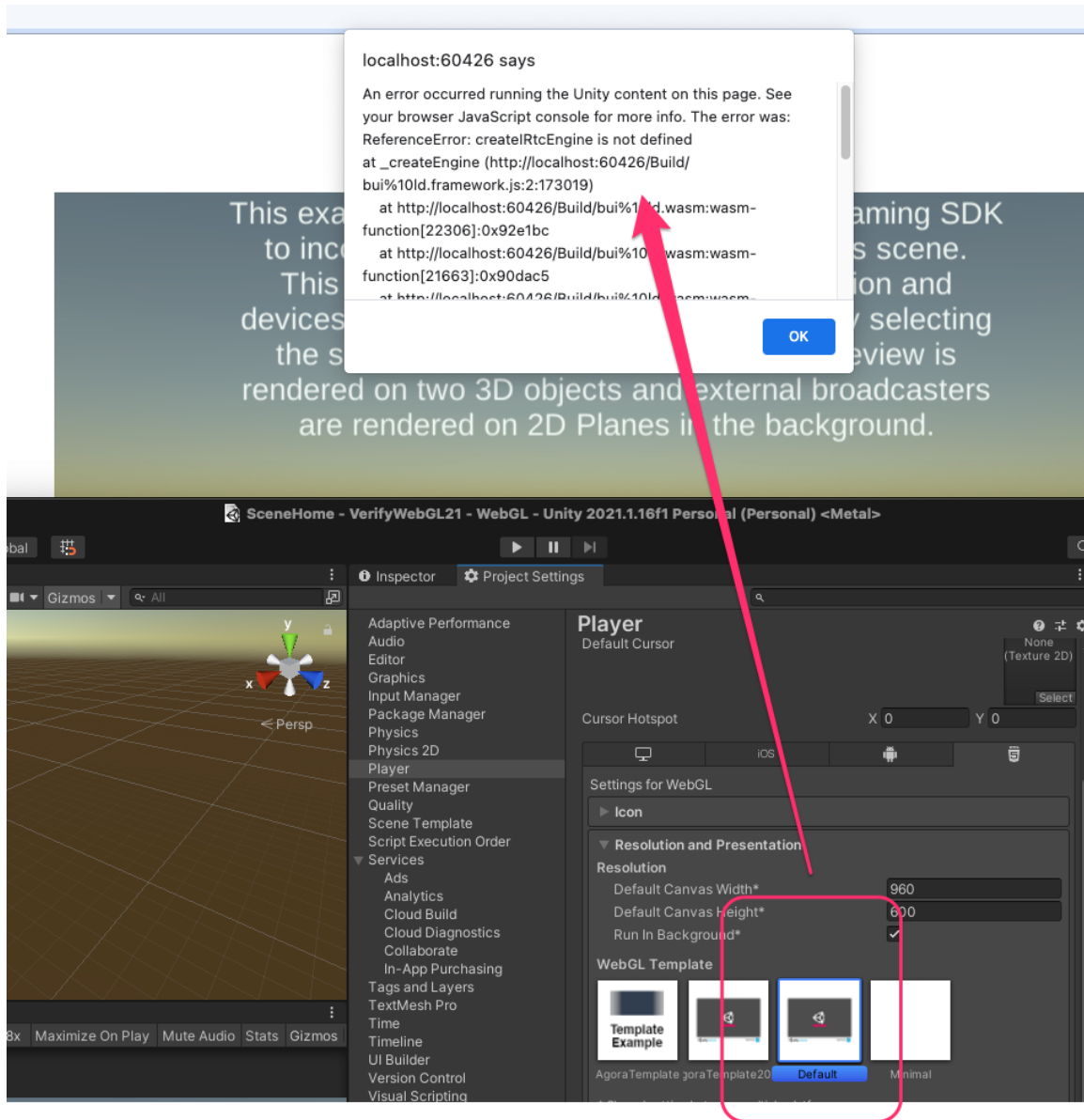
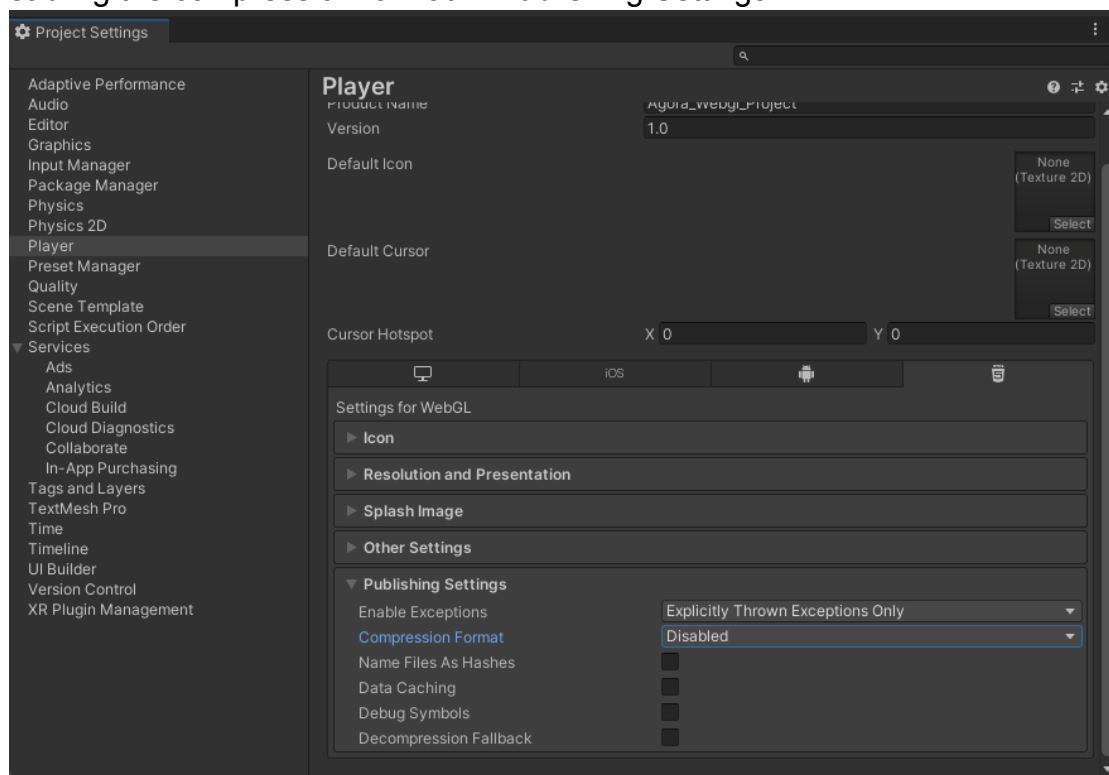4. On Unity 2020 or above, if the build doesn't start on Chrome, you may see this JS Console log message:


```
⊗ Uncaught SyntaxError: Invalid or unexpected token            :3000/Build/TestHello.framework.js.gz:1
⊗ ▶Unable to parse Build/TestHello.framework.js.gz! This can happen if build  TestHello.loader.js:1
   compression was enabled but web server hosting the content was misconfigured to not serve the
   file with HTTP Response Header "Content-Encoding: gzip" present. Check browser Console and
   Devtools Network tab to debug.
⚠ DevTools failed to load source map: Could not load content for https://download.agora.io/sdk/rele
   ase/AgoraRTC_N-production.js.map: HTTP error: status code 404,
   net::ERR_HTTP_RESPONSE_CODE_FAILURE
❯
```

Fix it by disabling the compression format in Publishing Settings.

5. Unity SDK 2021 (some later versions): there is a new emscripten STRICT mode introduced, and it affects symbol checking, and also disables auto-includes of js libraries. Fix this problem by adding " -s ERROR_ON_UNDEFINED_SYMBOLS=0 " to **webGLEmscriptenArgs**: in ProjectSettings\ProjectSettings.asset.

6. Compilation error about "UnityHook" undefined: this could be due to an upgrade of the SDK affecting the cache in your project. Make sure you clean your Unity project completely and import the SDK again.

Other References

- [Agora WebGL Programming Guide](#)
- [Agora WebGL Plugin README](#)