

THIS IS A BETA FEATURE

This feature is still in beta and subject to constant change. We encourage you to use it in test projects and provide your feedback to us.

However, DO NOT use it in production where it creates dependencies! Always back up your projects to make sure that you can go back to a previous version.

Vulkan is a new generation graphics and compute API that provides high-efficiency, cross-platform access to modern GPUs used in a wide variety of devices from PCs and consoles to mobile phones and embedded platforms. It is a low-overhead, cross-platform 3D graphics library that gives developers more control over the GPU and lower level CPU usage for their Android-based mobile projects. In the following topic, we will go over how you can enable and use Vulkan in your CRYENGINE projects.

Currently, Vulkan support in CRYENGINE is an experimental feature. For more information, head over to the [CRYENGINE Official Forum](#).

- [Prerequisites](#)
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Prerequisites

You need to compile Remote Shader manually, for more information please refer [Remote Shader Compiler](#).

Supported Devices and Drivers

For information on supported devices and drivers for Vulkan, please refer: <http://vulkan.gpuinfo.org/>

Currently, CRYENGINE may work on early versions of Vulkan but only have been tested on 1.0.46 version onwards.

Supported Operating Systems:

- **Windows 7**
- **Windows 10**

It is recommended to use the 64-bit operating system for the above-mentioned options.

Enabling Vulkan Support in CRYENGINE

To build a CRYENGINE project that has support for the Vulkan API, you will need to do the following:

1. Navigate to the CRYENGINE Installation Directory.

| Name | Date modified | Type | Size |
|---------------------|--------------------|-------------------|------|
| bin | 7/26/2017 11:00 AM | File folder | |
| Code | 7/26/2017 11:00 AM | File folder | |
| Editor | 7/26/2017 11:00 AM | File folder | |
| engine | 7/26/2017 11:00 AM | File folder | |
| gamesdk | 7/26/2017 11:01 AM | File folder | |
| gamezero | 7/26/2017 11:01 AM | File folder | |
| logbackups | 7/27/2017 2:21 PM | File folder | |
| Templates | 7/26/2017 11:01 AM | File folder | |
| Tools | 7/26/2017 11:02 AM | File folder | |
| assetchanges.txt | 7/26/2017 12:56 AM | Text Document | |
| buildinfo.txt | 7/26/2017 12:56 AM | Text Document | |
| CMakeLists.txt | 7/26/2017 12:45 AM | Text Document | |
| codechanges.txt | 7/26/2017 12:56 AM | Text Document | |
| completed.txt | 7/26/2017 12:56 AM | Text Document | |
| cryengine.cryengine | 7/26/2017 12:56 AM | CryEngine version | |
| editor.cfg | 7/26/2017 12:56 AM | CFG File | |
| editor.log | 7/27/2017 2:21 PM | Text Document | |
| GameSDK.cryproject | 7/26/2017 12:46 AM | CryEngine project | |
| GameZero.cryproject | 7/26/2017 12:46 AM | CryEngine project | |
| system.cfg | 7/26/2017 12:56 AM | CFG File | |

2. Right-click the **system.cfg** file and edit it using a text editing software (**Notepad++**).
3. In the **system.cfg** file, add or change the cvar directive **r_Driver=(X)** under the **shader settings**, for example, "**r_Driver=DX12/DX11**" to "**r_Driver=VK**". You may also need to set "r_ShaderCompilerPort" to the value of 'port' found in Tools /RemoteShaderCompiler/config.ini.

```
1 -- System data to be generated by JenkinsScript
2
3 --sys_float_exceptions=1
4 sys_asserts=1
5 sys_PakLogInvalidFileAccess=0
6
7 -- shader settings
8 r_ShadersAllowCompilation=1
9 r_ShadersRemoteCompiler=1
10 r_ShaderCompilerServer=192.168.14.176
11 r_ShaderCompilerFolderName=CERelease
12 r_ShaderEmailTags=gamesdk
13 r_Driver=VK
14
15 sys_spec=4
16 r_fullscreen=0
17
18 -- Always keep user analytics disabled internally.
19 sys_UserAnalyticsCollect = 0
20
21 -- Crash Reporter settings.
22 sys_crashrpt=1
23 sys_crashrpt_server=http://crashreport.cryengine.com/crashrpt/crashrpt.php
24 sys_crashrpt_appname=CE54
25 sys_crashrpt_privacypolicy=https://www.cryengine.com/privacy
```

4. Save the **cfg** file, and restart the CRYENGINE editor.
5. Enable the [Remote Shader Compiler](#) (See **Prerequisites** above).
6. Now, you should have enabled Vulkan support in CRYENGINE.

By Default, CRYENGINE's drivers are set to DX11/DX12 which prevents the editor to utilize Vulkan support in the game mode. Make sure you use game-launcher to test Vulkan support.