

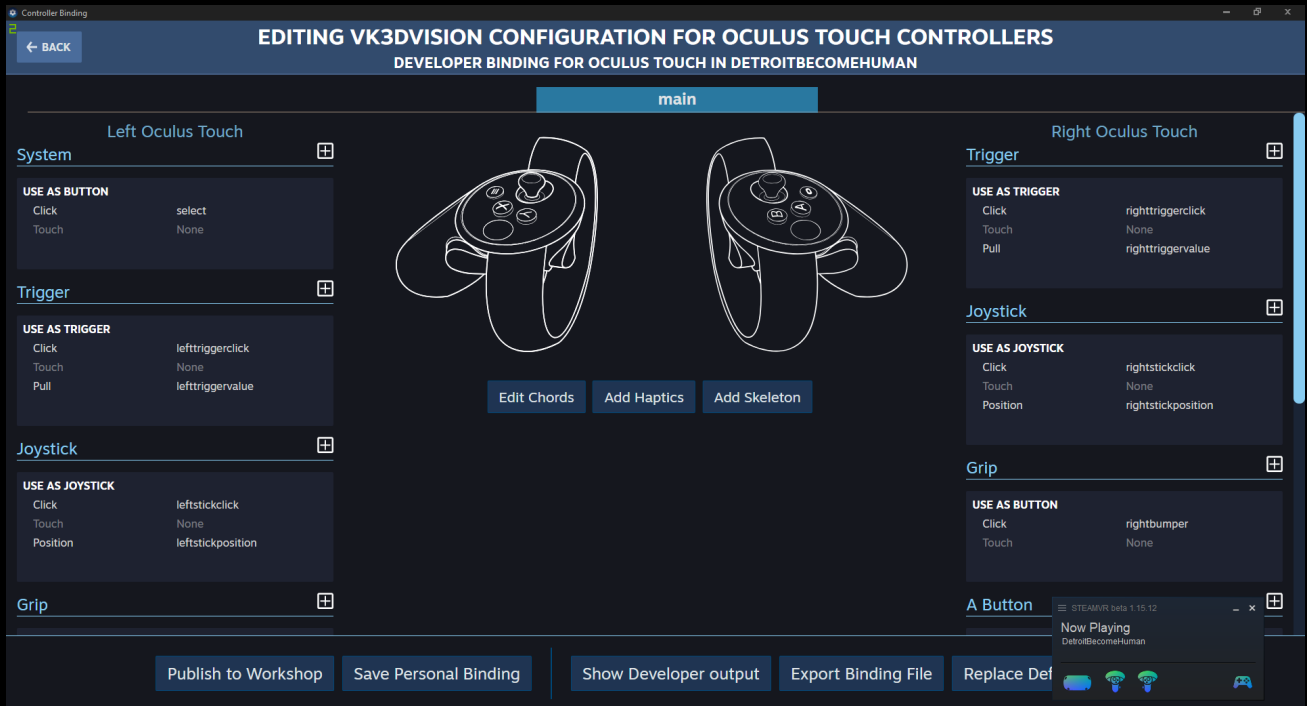
Controller Button	Xbox Button
Right B	B
Right A	A
Left B	Y
Left A	X
Left Trigger	Left Trigger
Right Trigger	Right Trigger
Left Middle Finger	Left Shoulder
Right Middle Finger	Right Shoulder
Left Analog	Left Analog
Right Analog	Right Analog
Left Stick	Left Thumb
Right Stick	Right Thumb
Left Touchpad	D-PAD
Right Touchpad D	Start
Right Touchpad U	Back
Right Touchpad R	Guide

2. HTC Vive Wands:



Controller Button	Xbox Button
R. Trackpad Click Right	B
R. Trackpad Click Down	A
R. Trackpad Click Up	Y
R. Trackpad Click Left	X
Left Trigger	Left Trigger
Right Trigger	Right Trigger
Left Grip	Left Shoulder
Right Grip	Right Shoulder
Left Trackpad	Left Analog
Right Trackpad	Right Analog
L. Trackpad Centre Click	Left Thumb
R. Trackpad Centre Click	Right Thumb
Left Trackpad Click	D-PAD
Right Menu	Start
Left Menu	Back

3. Oculus Touch Controllers (Oculus Rift S & Quest & Quest 2 - via Link)



Controller Button	Xbox Button
Right B	B
Right A	A
Left Y	Y
Left X	X
Left Trigger	Left Trigger
Right Trigger	Right Trigger
Left Grip	Left Shoulder
Right Grip	Right Shoulder
Left Analog	Left Analog
Right Analog	Right Analog
Left Stick	Left Thumb
Right Stick	Right Thumb
L Trigger + X	D-PAD Down
L Trigger + Y	D-PAD Up
L Trigger + A	D-PAD Left
L Trigger + B	D-PAD Right
L Grip + L Trigger + X	Back
R Grip + R Trigger + A	Start

2. HelixVisionVR:

- Requires HelixVision (<https://store.steampowered.com/app/1127310/HelixVision/>). Provides a bigger performance impact (approx. 35%) compared to OpenVR mode, but has other features.

3. 3DVision:

- Uses **DX9** to render.
- **Works on Nvidia driver ABOVE 452.06.**
- Requires Nvidia 3D Vision Driver!
(DO NOT USE ANY OVERLAYS or Performance will be severely affected!)
- Note: Separation and Convergence are used from "Vk3DVision.ini" and not from the 3DVision driver!

4. 3DVision11:

- Uses **DX11** to render.
- **Works on Nvidia driver BELOW 452.06 ONLY!**
- Requires Nvidia 3D Vision Driver!

- Note: Separation and Convergence are used from "Vk3DVision.ini" and not from the 3DVision driver!

5. **SBS_LEFT:**

- Side-by-side, left image first.
- No Nvidia 3D Vision Driver is required!

6. **SBS_RIGHT:**

- Side-by-side, right image first.
- No Nvidia 3D Vision Driver is required!

7. **TB_LEFT:**

- Top-Bottom, left image at top.
- No Nvidia 3D Vision Driver is required!

8. **TB_RIGHT:**

- Top-Bottom, right image at top.
- No Nvidia 3D Vision Driver is required!

9. **MONO:**

- Standard 2D rendering. (Obviously - Default rendering)

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File & Folder Structure:
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- "Vk3DVision" is the working folder where all files & directories used by VK3DVision exist. Files that are outside of this location will not be read:
 - o "Vk3DVision.ini" - configuration file. If this file is missing, VK3DVision will act as a passthrough.
 - o "ShaderSwap" - folder containing the stereo shaders that are going to be swapped at runtime. (This folder and its content are generated normally from the in-game UI).
 - o "ShaderFail" - folder containing the shaders that failed to compile. (If a shader fails to compile, VK3DVision will use the original, unmodified, shader instead and will output the modified source code in this folder, so it can be debugged and fixed for later usage.)
 - o "Logo.bmp" - Custom logo that will be displayed when a Vulkan application starts and "Vk3DVision" is loading. If this file doesn't exist, the default "Vk3DVision Logo" will be displayed. Recommended image size: 1280x720.
 - o "Vk3DFrameSync.dll" - Frame synchronisation module. This is per game and is not supplied with "Vk3DVision". A C++ template will be provided later, to make your own module.

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Getting 3DVision to run:
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- Before using **Vk3DVision**, set your Vulkan game/app to run in Borderless Mode! (Never run it in EXCLUSIVE_FULLSCREEN!)
- Make sure the in-game resolution matches your Windows Desktop Resolution (**THIS IS MANDATORY FOR 3D VISION. For other modes, this is not mandatory.**)
- Copy "Vk3DVision" folder (containing "Vk3DVision.ini" + other files) next to the game executable (or working directory of the application).
- In "Vk3DVision.ini" select your rendering mode.
- Start "Vk3DVision.exe":
 - o "Vk3DVision.exe" can reside in any place. It doesn't need to be in the game folder (it can be on your desktop).
 - o This will install a Global Vulkan Layer, meaning any Vulkan application that starts after "Vk3DVision" will now be routed through "Vk3DVision". On start of an application, "Vk3DVision" will search for "Vk3DVision\Vk3DVision.ini" file in the current working directory of the application. If this file is not found, "Vk3DVision" will act as a passthrough.

- o **Recommended:** Start "Vk3DVision" right **BEFORE** you start your application (after Steam, etc. started) This will ensure that only your game is routed through "Vk3DVision" and not Steam for example.

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Video Documentation:

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- All supported options are documented in "Vk3DVision.ini". They should provide a clear understanding on what each option does.
- Please watch the video documentation here, on how to get running and start fixing your game: <http://3dsurroundgaming.com/Vk3DVisionDocs.html>

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Other Recommendations:

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- To get the best Vulkan performance out of your Nvidia GPU, it is recommended for the time being to use the **452.06** driver set.
- It is recommended to use Windows 10 20H2 (2004) version and enable the GPU HW accelerated scheduling:
<https://www.windowslatest.com/2020/07/07/enable-windows-10-hardware-accelerated-gpu-scheduling/>
- (In Vulkan games the performance can go up by 22.5% based on the tests done in Detroit: Become Human on Turning GPUs.)