VorpX Setup Guide

Resident Evil 7
(Three Methods)

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(With Help from RuinedEraser and VorpX)

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Game Preparation

Regardless of which method you intend on using, you must perform these steps.
Before using this game with VorpX, we need to change a few graphics settings and take care of a couple of other things. Launch VorpX, then your VR runtimes (SteamVR or Oculus) and finally launch Resident Evil 7, at which point VorpX will hook to it, and you will see it in your headset.

1) Press the DEL key to bring up the VorpX HUD.
2) Go to the DirectVR Settings category.
3) Set "Change game settings" to OFF, then hit OK & SAVE.
4) Press middle mouse button to enable VorpX EdgePeek so that the menus display correctly.
5) Go into the game's graphics options to set the resolution:
1600x900 for low (to be used on systems with a GTX 1060 or greater)
1920x1080 for medium (recommended for GTX 1080 or greater)
2560x1440 for high (suitable for an RTX 2080 or greater, may require virtual resolutions)
* Keep in mind that Method 3 features a different set of resolutions.
6) Here are the recommended relevant graphics settings:
Display mode: Windowed
Field of vision: 90
V-sync: Off
Resolution scale: Set at 1.2 for 900p, 1.1 for 1080p and 0.9 for 1440p.
Texture Filtering: Medium or High
Mesh Quality: Low
Anti Aliasing: SMAA
Effects Rendering: Low
Shadow Quality: Medium
Turn off: Depth of field, Dynamic Shadows, Ambient Occlusion, Volumetric lighting, Reflections, Chromatic Aberration and Motion Blur (the last one is important).
7) Quit the game once you are done with settings.
8) If you plan on using the 2560x1440 resolution, and you have a desktop running at or below 1920x1080, you're going to need to enable enhanced resolutions (if using 1600x900 or 1920x1080, skip this step)

For nVidia cards, to enable nVidia DSR, do the following:
a) Open the nVidia control panel by right-clicking empty desktop area and clicking "NVIDIA Control Panel"
b) Go to Manage 3D Settings
c) Under the Global Settings tab, set DSR - Factors to 1.78x
d) Close the NVIDIA Control Panel

For AMD cards, to enable AMD VSR, do this:
a) Open Radeon Settings by right-clicking empty desktop area and clicking "Radeon Settings"
b) Select the Display tab
c) Click the Virtual Super Resolution tile to turn the feature on.
d) Exit Radeon Settings

Finally, to switch to 2560x1440:
a) Right click on an empty desktop area and select Display Settings
b) Select your primary display in the window
c) Make note of the current resolution setting, then change it to 2560x1440
d) Hit "Keep Changes" at the next dialog, and hit OK in Display Settings/Screen Resolution
Your desktop will look a bit blurry when using enhanced resolutions.
This is normal and won't affect the game's image quality in VR.
You can easily return to your native resolution once you are done playing.

Method One (VorpX Stock Profile)

Assuming you've completed the process under the Game Preparation section of this guide, if you want to just jump into the game and play, use this method. You have absolutely nothing to do but this:

1) Launch VorpX along with your VR runtimes (SteamVR or Oculus)
2) If you plan on using 2560x1440, set your desktop at that. Skip this step for the lower resolutions.
3) Launch Resident Evil 7
4) Go in the graphics options to double check your resolution and settings.
5) Start a game and play Resident Evil 7

We do recommend setting the VorpX camera height modifier at 0.15 for something that will be detailed further in this document. Here is the full set of VorpX settings:

1) Get to a point with no cutscenes and no distractions in game
2) Press the DEL key to bring up the VorpX HUD
3) Main settings, 3D Separation Strength: 1.0
4) Click on More Stereo3D Settings
5) Main settings, 3D FOV enhancement: 0.8
6) Main settings, Camera Height Modifier at 0.15
7) Image settings, Image Zoom: 0.68
8) Image settings, HUD scale: 0.5
9) Image settings, HUD depth: 0.66
10) Hit OK & SAVE

Please consult the Issues and Tricks section of this document, notably to fix the issue of the cut-out texture around the hand and weapon models.

Method Two (FOV Trainer)

Tools used in this section:

FOV Trainer
https://community.pcgamingwiki.com/files/file/2181-resident-evil-7-fov-tool-aspect-ratio-patcher/
Both the FOV Trainer and the Aspect Ratio Patcher come in one package.
The archive password is "pcgw"

Method Two makes use of a tool known as the RE7 FOV Trainer. This tool has a nasty habit of registering a false positive on Windows Defender, because it's designed to actively modify the contents of Resident Evil 7's runtime memory in order to forcibly change the field of view. Since we know this process is harmless, we're going to have to make Windows Defender let us download and run the tool.

To exclude this tool from Windows Defender real time protection, do the following:

1) Create a folder to store your Resident Evil 7 tools anywhere you want.
2) Search for "security" in windows. Windows Security will come up, open "Virus & Threat Protection"
3) Scroll to Virus & threat protection settings and click Manage settings
4) Scroll all the way down to Exclusions and click Add or remove exclusions
5) Click the Add Exclusion button and pick "Folder". Pick the folder we created, then press Select Folder.

Next you may need to temporarily disable Real-Time Protection and download the trainer:

1) From the Virus & threat protection settings window, click the back arrow on the top-left
2) Disable Real-Time protection by unchecking it.
We're only going to do this temporarily to allow the download to complete. Windows will turn this back on automatically if you forget about it, so it's not a big problem.
3) Download the FOV trainer directly in the folder we created and excluded in the previous steps
4) Re-enable real-time protection

Now before running the tool, we need to disable SmartScreen, a rather useless and overzealous Windows Defender feature:

1) In the Windows Security section, click App & Browser control on the left.
2) Under "Check apps and files" change the setting to Off.
You can leave this setting permanently off as this feature is utterly useless, but if you don't feel comfortable doing that, at least turn it off to run the FOV trainer, or this simply won't work.

Leave yourself a window with the contents of our Resident Evil 7 tools folder open as you will need it.

If you plan on using Method Three, which features an aspect ratio of 4:3 along with proper field of view, you can skip the following and head right over to the Method Three section of this document.

Now that we have our own computer's permission to run the applications we need, assuming you've completed the process under the Game Preparation section of this guide:

1) Launch VorpX along with your VR runtimes (SteamVR or Oculus)
2) If you plan on using 2560x1440, set your desktop at that. You can skip this step for the lower resolutions.
3) Launch Resident Evil 7
4) Go in the graphics options to double check your resolution and settings.
5) Start a new game or load one
6) Get to a point with no cutscenes and no distractions in game
7) Press the DEL key to bring up the VorpX HUD

Here are the VorpX settings to use:

1) Main settings, 3D Separation Strength: 0.55
2) Click on More Stereo3D Settings
3) Main settings, 3D FOV enhancement: 0
4) Main settings, Camera Height Modifier at 0.15
5) Image settings, Image Zoom: 0.81
6) Image settings, HUD scale: 0.45
7) Image settings, HUD depth: 0.6
8) Hit OK & SAVE

Finally launch and set the FOV Trainer:

1) Use ALT and TAB to navigate away from RE7 and to our folder with the FOV Trainer
2) Launch the FOV Trainer
3) In the trainer enter a value of 120 and press enter
4) Use ALT and TAB again to return to RE7
5) Press F1 on your keyboard to enable the field of view value
**If this process has no effect, just repeat it, even re-entering the same FOV value. We have observed this needing to get done twice before it "woke up".*

You are now ready to play Resident Evil 7 with a better field of view, less visual issues and some rather decent performance. If you are happy with this method, make sure to refer to the Issues and Tricks section of this document, especially to kill off the cut-out texture around the hands and weapon models.

If the third party tools used to make this method work ever go out of date, you can always fall back to Method One. The third party tools have been frequently, rapidly updated in the past, so check for updates to this document and/or the download links. This document will be kept up to date alongside these third party tools if the setup changes or the download links are altered.

Method Three (FOV Trainer + Aspect Ratio Patcher)

The instructions for Method Three are written with the assumption that you have read the instructions for Method Two. Please read those before proceeding with Method Three.

Tools used in this section:

Aspect Ratio Patcher
https://community.pcgamingwiki.com/files/file/2181-resident-evil-7-fov-tool-aspect-ratio-patcher/
Both the FOV Trainer and the Aspect Ratio Patcher come in one package. The archive password is "pcgw"

Custom DSR Tool
Main: https://www.forum-3dcenter.org/vbulletin/attachment.php?attachmentid=65821&d=1551010836
Mirror: http://www.cirn.ca/tmp/CustomDSRTool.zip

Custom Resolution Utility by ToastyX (Potential solution for AMD cards)
https://www.monitortests.com/forum/Thread-Custom-Resolution-Utility-CRU

Method Three stacks both the FOV Trainer and a tool called the Aspect Ratio Patcher over one another, which results in the game running at a 4:3 aspect ratio with a proper field of view and thus the best possible pixel density and graphical performance. The first challenge we'll encounter is this game will not offer high 4:3 resolutions unless our system specifically supports them. We're going to use enhanced resolutions to fool it into thinking we do.

If you haven't turned nVidia DSR on earlier, go back to the Game Preparation section of this document and follow those steps. With DSR on, do the following:

1) Download and extract the Custom DSR Tool, and run it (while at your monitor's native resolution)
2) Check an empty resolution slot, and click Edit Entry
3) Enter a Target Resolution X and Y value, while leaving the scale fields untouched. Use:
1400x1050 for low (to be used on systems with a GTX 1060 or greater)
1600x1200 for medium (recommended for GTX 1070 or greater)
1920x1440 for high (suitable for those with an GTX 1080 or greater)
4) Click OK
5) Click "Create Custom DSR Resolutions" and your new resolution will be added.
If you at any point change nVidia settings in the future, these custom resolutions will be removed. If that happens simply repeat this process.

We currently have no means of testing an equivalent solution for AMD graphics cards, but we can offer Custom Resolution Utility by ToastyX as a lead. Those who try this solution are encouraged to communicate their results in the comments section of our videos.

With the custom resolution now added, we need to run the Aspect Ratio Patcher:

1) Download and extract the patcher. It is composed of two files: an executable and a dat file.
2) Run the executable. A window will ask you to enter your screen width, write 1920 and press enter.
3) For the height, enter 1440 and press enter. Note that specific numbers don't matter, as long as it is 4:3.
4) The patcher will ask you where your re7.exe file is.
Typical location is C:\Program Files (x86)\Steam\steamapps\common\RESIDENT EVIL 7 biohazard\re7.exe
5) Patcher will create a backup of re7.exe (named re7.exe.backup) and make a copy set to run in 4:3.
If you ever want to revert this process just restore re7.exe.backup

Before launching the game, if your native desktop resolution is smaller than the resolution you intend to play at (ie 1920x1440 game on a 1920x1080 desktop), you will need to use DSR or VSR to run at a higher resolution. For example to play at 1920x1440, we recommend switching your desktop to 2560x1440 or greater.

We need to launch the game once on the desktop, without VorpX:

1) Launch the game. It should be in windowed mode already, and have black bars on the left and right.
2) Go in the graphics settings.
3) Make sure you're running in Windowed mode
4) Switch your resolution to the one you created using Custom DSR Tool
5) Set Resolution scale at 1.0 for 1600x1200 and 1920x1440. Set 1.1 for 1400x1050.
6) Leave the settings menu, then quit the game

Don't forget to leave yourself a window with the contents of the RE7 FOV trainer open before playing. Assuming you've completed the process under the Game Preparation section of this guide:

1) Launch VorpX along with your VR runtimes (SteamVR or Oculus)
2) If you plan on using 1920x1440, set your desktop 2560x1440. Skip this step for the lower resolutions.
3) Launch Resident Evil 7
4) Go in the graphics options to double check your resolution and settings.
5) Start a new game or load one
6) Get to a point with no cutscenes and no distractions in game
7) Press the DEL key to bring up the VorpX HUD

Here are the VorpX settings to use:

1) Main settings, 3D Separation Strength: 0.7
2) Click on More Stereo3D Settings
3) Main settings, 3D FOV enhancement: 0
4) Main settings, Camera Height Modifier: 0.15
5) Image settings, Image Zoom: 0.81
6) Image settings, HUD scale: 0.35
7) Image settings, HUD depth: 0.6
8) Hit OK & SAVE

Finally launch and set the FOV Trainer:

1) Use ALT and TAB to navigate away from RE7 and to our folder with the FOV Trainer
2) Launch the FOV Trainer
3) In the trainer enter a value of 103 and press enter *
4) Use ALT and TAB again to return to RE7
5) Press F1 on your keyboard to enable the field of view value
**If this process has no effect, just repeat it, even re-entering the same FOV value. We have observed this needing to get done twice before it "woke up".*

You are now set to play Resident Evil 7 with the best configuration possible. Do read up the Issues and Tricks section of the document, most importantly to resolve the issue of the cut-out texture around the hands and weapon models.

If the third party tools used to make this method work ever go out of date, you can always fall back to Method One. The third party tools have been frequently, rapidly updated in the past, so check for updates to this document and/or the download links. This document will be kept up to date alongside these third party tools if the setup changes or the download links are altered.

Issues & Tricks

The Hand & Weapon Model Cut-out Texture

There is a prominent blurred up cut-out texture around the weapon and hands in this game, and without doing anything it can seriously ruin this VorpX adaptation. Turning off VorpX positional tracking helps a little bit, but we've made you set Camera Height Modifier for a reason – leave the positional tracking ON - we propose this even more effective solution instead:

1) While sitting/standing in the spot you intend to play, lean back by 6 to 9 inches.
2) Press VorpX's recenter tracking hotkey (ALT and SPACE on the keyboard)
3) Now lean back into normal position.

This will cause the cut-out texture to be well under your view thanks to the height modifier, and pushed behind you thanks to the lean & recenter trick. For the most part, this will completely hide the problem. The issue will still be visible around objects that you can pick-up and inspect. There is no known solution for that instance of the issue, but it won't affect gameplay and is dealt with rarely enough that it should not be a bother.

Using Menus

When using menus in this game, always switch to VorpX EdgePeek by pressing your middle mouse button. If at first it doesn't kick in, you may have to press more than once, which is an issue we've encountered.

Strange “Checkered” Shadow

There's a sort of checker-pattern shadow that sometimes appears on the outer edges of your view. We're not sure what causes it, but we haven't been able to get rid of it. Fortunately it's not a major eye sore, and it's only pointed out here in case you wonder if you did anything wrong when noticing this minor issue.

Ability to Change Resolutions

This is one of these VorpX adaptations where the game doesn't mind its resolution changed mid-play. Provided you stick to 16:9 resolutions for Method One and Method Two and stick to 4:3 resolutions for Method Three, you are free to try different resolutions while you play the game, without need to restart anything, other than maybe re-enabling the FOV trainer if you're using it.

Alternate Method Three Image Zoom Setting (Eliminate Edges)

The 4:3 configuration we demonstrate tries to balance pixel density and viewport size. It's possible that you notice a tiny slither of an edge at the top and bottom of the game view. If this bothers you, you can try an alternate FOV and Image Zoom combination:

1) In the FOV trainer use a value of 110 instead of 103
2) In VorpX Image Settings, use 0.88 for Image Zoom

This configuration will not have visible edges, but the tradeoff will be reduced pixel density and image clarity.