*I can confirm that guide was indeed written by an idiot…

The vanilla LOD in Skyrim VR is really terrible. The distant landscape looks like it was sculpted from plasticine for a primary school project and the trees look like cheap cardboard cut-outs made by the same class. On top of that your immersion is continually broken by the full textures/models popping in as you get close enough for it to be rendered. And this is before you have installed any mods which add or change terrain or buildings etc.

There are ~~four~~ three** solutions to this problem:

1. The first is to install some seriously heavy duty weather mods with plenty of additional mists, fog and storms mods etc. This helps a lot as you generally can't see the poor quality LOD popping in through the mists, rain and snow, although it does mean you don't get to see much of the scenery. But it is the simplest solution. Examples: [Obsidian Fog and Snow Edition](#) or [True Storms Special Edition](#), [Cresty's Distant Mists](#), [Volumetric Mists](#) and [Morning Fogs](#)

2. The second solution, which can be combined with the first solution for an even more effective fix, is to install landscape and tree mods that provide their own LOD files. How well these work will depend on whether the creator generated the LOD with no other mods installed, and whether any mods you have installed conflict with or overwrite the new LOD placement and/or textures. These can work really well, or look terrible with lots of clipping – but it is a simple solution. Examples: [Enhanced Vanilla Trees](#) or [3D Trees and Plants](#), [Majestic Landscapes](#) or [Cathedral Landscapes](#).

3. For those with OCD and unlimited amounts of patience there is the final solution. This is to generate high quality terrain, road, tree, model LODs and occlusion data for your specific combination of mods and settings etc. While still not perfect, this will minimise issues with ugly LOD and pop-in as far as it is possible within the framework the Skyrim engine. However, this is not an easy or simple process, especially if you are new to modding or haven't really tried to produce custom LOD before. The rest of the document will be dedicated to helping you navigate these confusing and treacherous paths.

**I have been advised by my solicitor that recommending players to rub Vaseline© into their eyes in order to mitigate LOD ugliness and pop-in might lead to lawsuits and should in no circumstances be mentioned in this document…

There are hundreds of guides and discussions online that generally go like this: Using DynDOLOD is very straight-forward, just generate terrain/road LOD and Occlusion data using xLODGen/ACMOS, then use TexGen and DynDOLOD to produce tree billboards and tree/model LOD – simples! Straight-away we have moved from one tool, to four tools – there are different versions of these tools available for download and hundreds of different contradictory and fragmented guides scattered all over the internet.

So the first barrier the uninitiated must traverse is trying to find a simple guide that takes you through the whole process. I still haven't found one that covers the whole process and all of the tools involved that is also easy to understand and up to date. Often you follow the trail back to the official websites of the creators of these tools (many of them being different iterations or generations of the same tool). Obviously, these are the people who created the apps and understand it the best. However, as anyone who works in digital technology knows, the people who write the software aren't necessarily the best at explaining how it works or updating instructions when new versions come out. That's why most commercial software companies employ people whose only responsibility is to write guides and support us idiots. So this is not a criticism of the guys who spend years of their lives making these tools work and then generously sharing them with the world. No, they really don't have the time to do both jobs and their priority should be developing the software and making sure it works. But the reality is that there are no up to date, easy to read, comprehensive guides to doing this that I can find after a year or two of modding and tweaking Skyrim VR.

So by gaining scraps of information here and there, and through a process of trial and error (mostly error) I think I now have established a relatively simple and reliable way to get through the process without completely destroying my mod setup. However, this involves sticking with DynDOLOD 2 rather than using DynDOLOD 3. Although version 3 is newer and offers many features unavailable in version 2, it is a lot more fickle and there are many more things that can go wrong. I am sure there are plenty of people who can get this working with impressive results – but I am not one of them. I did try really hard to switch from DynDOLOD 2 to 3. With version 2 everything worked as expected, the LOD worked, all the mods worked and I rarely ran into any major issues or crashed. As soon as I started DynDOLOD 3 I knew we weren't going to get on. It threw up hundreds, if not thousands of warnings and critical errors, which it demanded I fix before it would even consider trying to generate any LOD for me. Now presumably these errors already existed on my system and DynDOLOD 2 just got on and did it's best to produce the LOD, and as those errors weren't causing any obvious issues in game everyone was happy. Most of the warnings and errors it threw up didn't seem to be anything to do with LOD generation and I really had no idea how to fix them (LOOT wasn't reporting any warning etc other than a few early loading dirty plugins with ITMs). I assume this strict behaviour is to firstly identify any potential problems and avoid glitches or crashes when the LOD is generated or deployed etc, and it is clearly marked as an Alpha version for testing only. But as the game was working fine I would have liked the option to continue with the LOD generation anyway accepting that any problems I ran into were not caused by DynDOLOD 3. Also, as I am running close to 600+ mods

currently it would take me months or years to work through and resolve all of the issues identified. And, although it recommends cleaning all of your mods and DLC's with xEdit before starting, I am reluctant to just wantonly clean large numbers of mods, because in the past doing so has completely broken my setup, which then had to be rebuilt from scratch etc. But I couldn't even post a comment or question on the DynDOLOD 3 mod page – they have been disabled, probably because the whole process is so complicated and can easily go wrong – they would be completely inundated with support requests. So feeling quite frustrated I switched back to DynDOLOD 2 and focussed on getting the process as straight-forward and effective as possible.

The process will involve four tools used in five distinct steps, there are number of mods that must be installed before you start and an ini setting that needs to be changed before you actually try it out in game. So in summary we will:

1. Generate Terrain LOD in xLODGen
2. Generate Road textures using ACMOS
   a. Add them to the Terrain LOD by overwriting them
   b. Zip up the Terrain LOD and drag into Vortex to install it
3. Generate Texture files using TexGen
   a. Zip up the Texture files and drag in to Vortex to install it
4. Generate Tree and Model LOD with DynDOLOD 2
   a. Zip up Tree and Model LOD and drag into Vortex to install it
5. Generate Occlusion Data with xLODGen
   a. Zip up Occlusion Data and drag into Vortex to install it

You should not start this process until you have pretty much finalised your mods, load order and ironed out any issues. This is because if you install any mods subsequently that change anything in the exterior significantly you are either going to have to go through the whole process again (which can take many hours, depending on your mods and hardware specs) or put up with visual anomalies when the LOD and full textures/meshes don't match up. You can of course install mods that affect gameplay, weapons, armour, NPC's etc – but don't install and new land or city overall mods etc.

Obviously, you have to have the requirements for DynDOLOD 2 installed which will include:

- [Dynamic Distant Objects LOD - DynDOLOD](#) (Download Manually and Unzip to Root of Drive)
- [DynDOLOD Resources SE](#) (Install with Vortex)
- [DynDOLOD DLL VR – Scripts](#) (Install with Vortex)
- [DynDOLOD DLL VR - SKSEVR Plugin - Skyrim VR 1.4.15](#) (Install with Vortex)
- [SKSEVR](#) (Download Manually and Copy to your Skyrim VR Directory)

Other Tools

- [XLODGen](#) (Download and Unzip to Root of Drive)
- [ACMOS Road Generator](#) (Download and Unzip to Root of Drive)
- [TexGen](#) (Already Included in the DynDOLOD 2 Download above)

Tree Billboards – Choose one

- [Indistinguishable Billboards for Skyrim SE](#) (For Vanilla Trees)
- [1) EVT - Lush Trees v2.1.0 (DynDOLOD 2)](#) (For Enhanced Vanilla Trees + Billboard)
- [Skyrim 3D Trees and Plants & Skyrim 3D Trees and Plants BILLBOARDS](#) (For 3D Trees and Plants)

Other Required Mods

- [xLODGen Resource - SSE Terrain Tamriel](#) (Only Required During xLODGen)
- [HD Terrain Noise Texture SE](#) (Adds Texture to Terrain LOD)
- [A Clear Map of Skyrim and Other Worlds](#) (Required for World Maps)



> "
> Main Course: Generating Terrain LOD with xLODGen
> "

So assuming you have all the requirements installed and xLODgen unzipped into a folder on the root of a drive we will begin the process. Before you run xLODGen for the first time you need to create a shortc-ut to it in the same folder, right click on it, open properties and add the text in red to the end of the Target: C:\xLODGen\TS5VRLODGenx64.exe -tes5vr -o:"C:\xLODGen\xLODGen Output\" - changing the letter of the drive to match your own. If you don't do this xLODGen will write all of the files directly into and/or over the existing Skyrim VR game files and it will be very difficult if not impossible to remove them or change them back if it doesn't work.

When you start xLODGen using this shortcut, it will load all of the World Spaces you have installed on the current Vortex profile and then open this window:
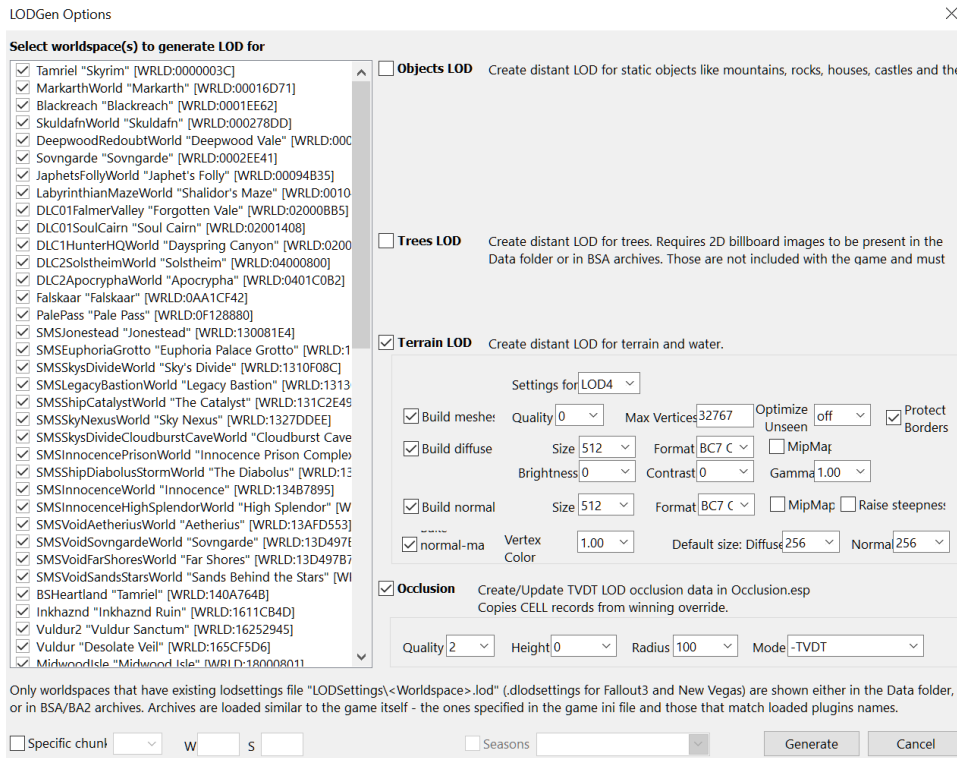
You should right click on the list of World Spaces and choose Select All and then make sure only Terrain LOD is enabled (I forgot to disable Occlusion when taking the screenshot) and match all of the settings as shown above for the LOD4 Terrain. This is the LOD that will be used closest to the player and covers the smallest number of cells, as the numbers increase LOD8 and LOD16 are shown further away and cover larger numbers of cells. LOD32 is only used for World Maps. The numbers shown are safe default options for your first attempt – you can increase or decrease the quality next time depending on how your hardware copes with DynDOLOD. You can then switch to the LOD8 settings using the dropdown list and match them to the ones shown below:
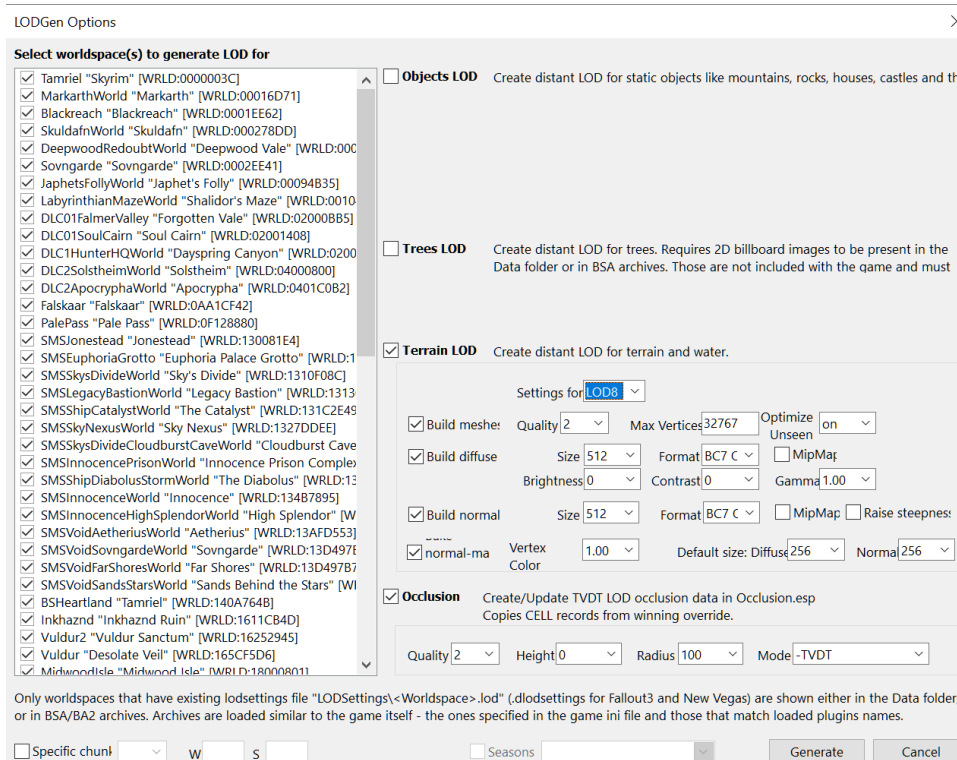
Again these are safe default settings for your first try, you can adjust them in later tries. Once you have done this switch to the LOD16 settings and copy the settings shown below:
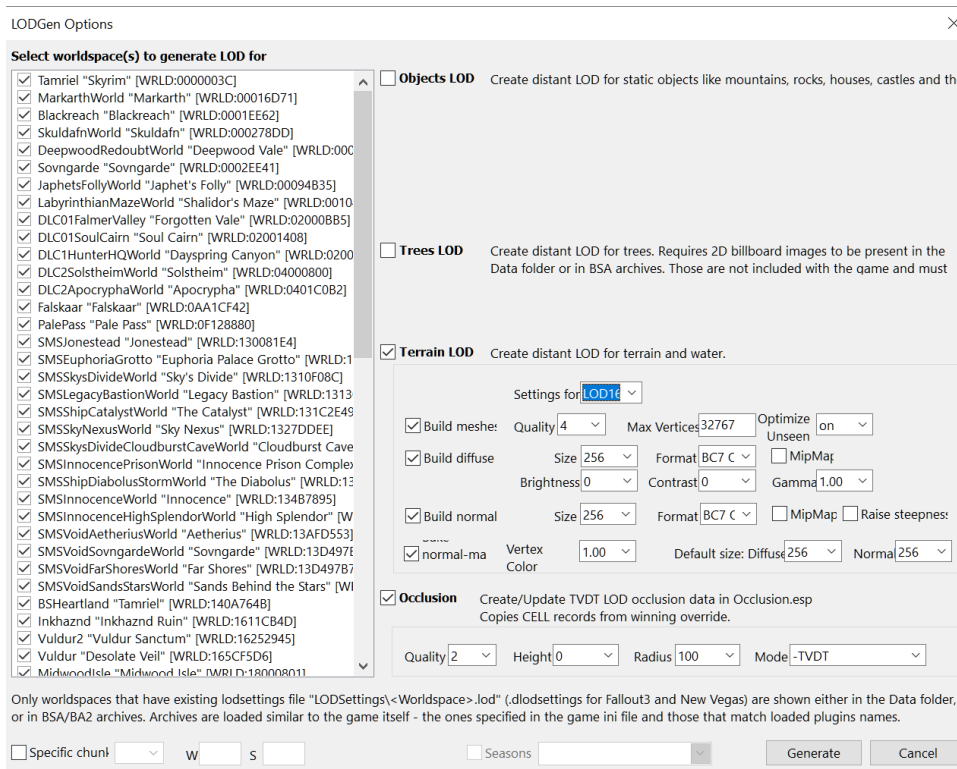
Once you have done this switch to the final LOD32 settings page and enter the following settings, note that in this case Optimise Unseen is set to 550 instead of on/off - if you don't do this water levels and coverage will not be accurately shown on the World Map. In principle you can increase the quality of the World Map Terrain LOD without affecting the performance of the game, but whether you want to do this or not will depend on whether you use Fast Travel or how much time you spend in the World Map:
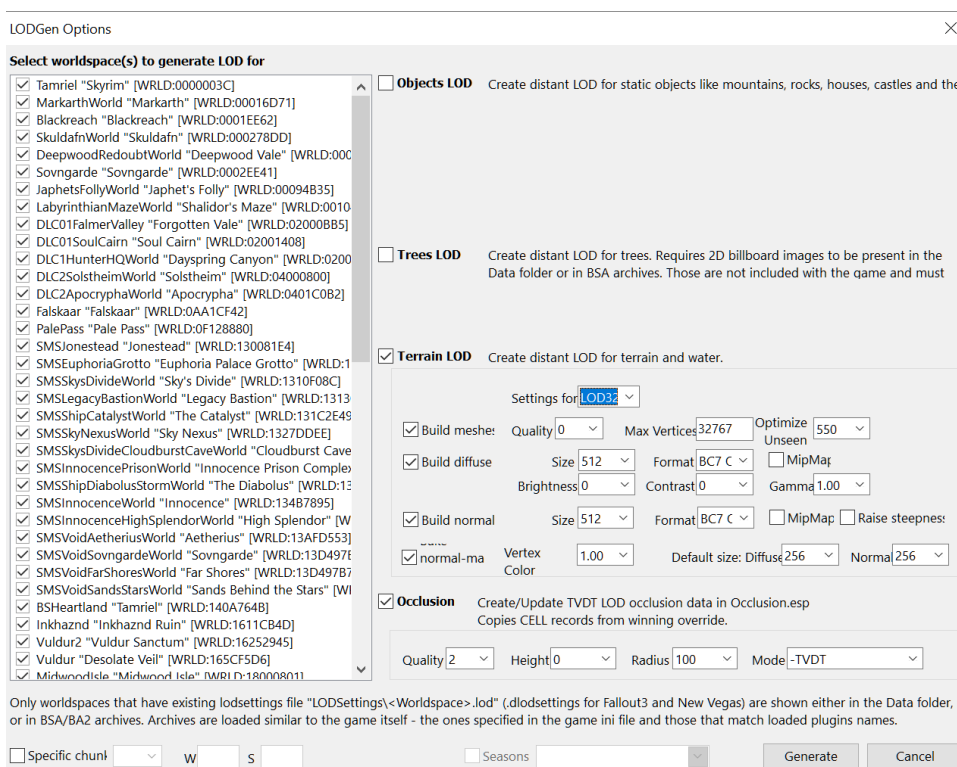
Once you have finished entering all the settings correctly (double check) you can click Generate and go and find something useful to do while it generates. Let's face it if you are generating terrain LOD for a VR game you could probably do with some exercise and a breath of fresh air 😊 On my system the process took between 30-40 minutes to complete and if you set up the shortcut Target correctly you will find two folders inside the xLODGen Output folder inside the xLODGen folder. If you didn't, then it has written all of the meshes and textures directly into/over the game files and it is time to cry into your lap and re-evaluate your life choices. Seriously though if this does happen – you might be able to identify the offending files by the date and time they were written, but any files that were overwritten are pretty much gone forever 😠 The FBI might be able to recover them for you, but what else are they going to find? 😱 Perhaps you should have gone for the Vaseline© in the eyes solution I am not allowed to recommend or even mention...

> ## Main Course: Generating Road Textures with ACMOS

Assuming all went well and you haven't lost the will to live we can now generate the Road textures and then add them to the Terrain LOD you have already generated. Run the ACMOS Road Generator.exe file and when it appears choose Roads from the drop down list and browse to the xLODGen Output folder where you hopefully generated the Terrain LOD in the previous step.
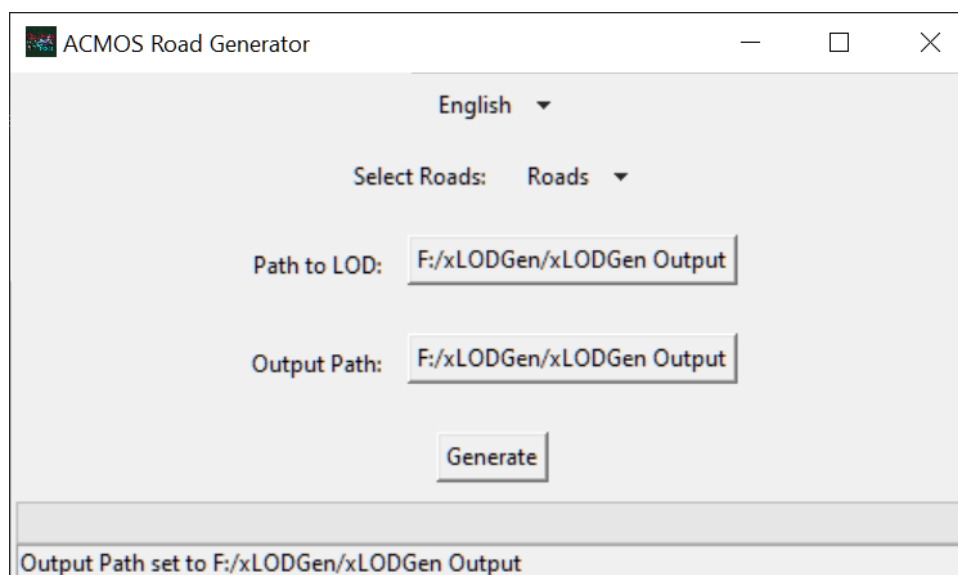

When you click Generate it will warn you that you are going to overwrite existing files and give you the option to generate them somewhere else. There is no reason to do this as you are going to have to merge them at some point anyway, so you may as well get it over and done with. Once the process has finished (should only take a few minutes) you can now zip up the Meshes and Textures folders (it will be quite big in size – mine was 6GB) call it xLODGen Output XX.zip - you can call it whatever you like, as it is only the contents that really matter, but it may as well make sense and the XX can be any characters or numbers in case you want to generate different LOD for different profiles and/or different LOD qualities etc. Once you have agonised over the precise naming of the file for an inordinate amount of time (because you wouldn't be doing this unless you were pretty OCD to begin with) You should drag it into Vortex to install your new Terrain LOD with pretty Road Textures.

The next step is to generate the Tree Texture Billboards and Model Textures with TexGen x64, which comes as part of DynDOLOD. Before you run it you need to create a shortcut to it in the same folder, right click, open properties and add –tesvr to the Target path. You do not need to specify an output folder for TexGen (or DynDOLOD) because it will default to a folder called TexGen_Output in the DynDOLOD folder. Once you have created the short and run the program you will see the following window:
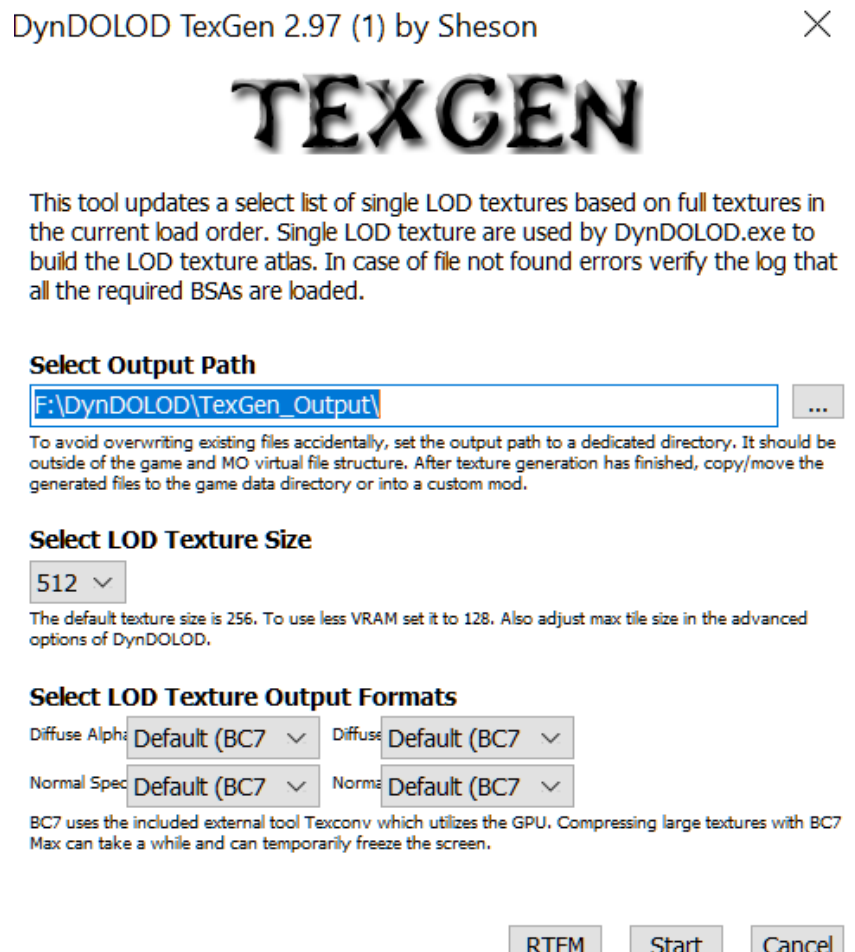
Make the settings match what is shown above. If you are concerned about performance, you can reduce the LOD Texture size, or increase it if you have a thermo-nuclear powered quantum GPU. This took about twenty minutes on my system. Once completed you can zip up the textures folder in the TexGen_Output folder – call it DynDOLOD Textures XX.zip (again filename is arbitrary) and drag it into Vortex to install it.

Finally, we get to the promised land! See how simple and intuitive it was to get to this stage? Why did you even both reading the guide? So like with TexGen you need to create a shortcut to DynDOLODx64.exe in the same folder and add the same flag: -tesvr to the Target path and the output will default to a folder called DynDOLOD Output. When you run it you will get to see a friendly welcoming screen which you can't close telling you to RTFM! I did, several times and I still didn't understand it. Eventually it will let you close the window and you will see this window. Click on Advanced – do not click on Low. Medium or High at this stage or the process will start without you having a chance to change the settings.

Once you click on Advanced you will see this window, where we can adjust all of the settings.

DynDOLOD Worlds 2.97 (1) using TES5VRLODGen by Ehamloptiran, Sheson and Zilav
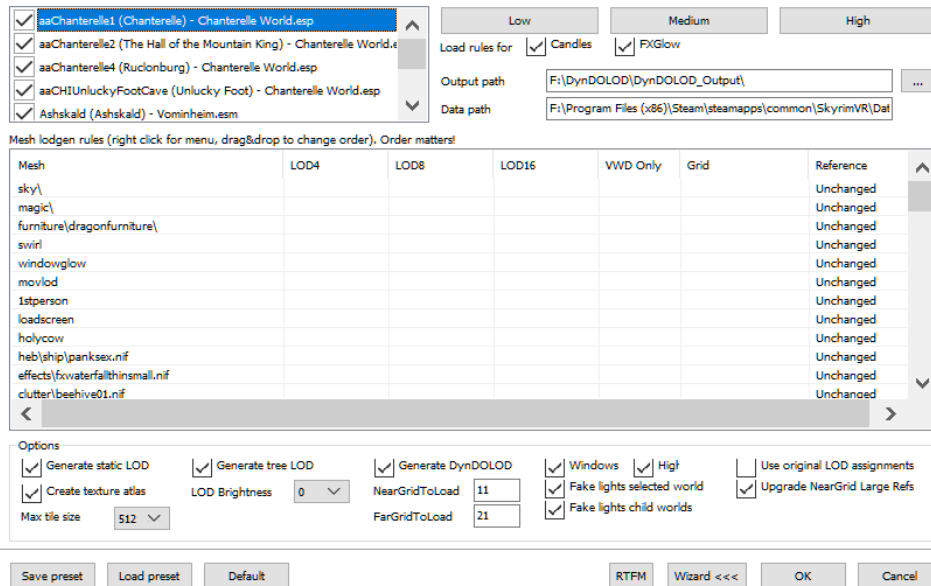
Click on the High setting button, let it reload, right click on the World Space list and select all, then match the rest of the settings as shown on the screen. These are safe default settings for a first run. You can experiment with higher or lower quality settings on another run. Yay! You mean I am going to have to do this all over again? Kill me now! In reality you will have to go through the whole process, test the results and then if necessary, increase or decrease the size and quality of textures and LOD etc. This is the longest part of the process and can take anything from an hour to several hours depending on the number of mods you have installed and the virility of your CPU/GPU/RAM where size really does matter! Once the process is finished you can zip up all of the folders and files in the DynDOLOD Output folder, call it DynDOLOD Output XX.zip or whatever you feel like and drag and drop it into Vortex to install it. Let DynDOLOD overwrite any files it conflicts with.

> " Main Course: Generating Occlusion Data using xLODGen "

We are now at the last step, how exciting! After half a dozen more attempts you will know this process off by heart 🧑‍🎓 So now we go back to xLODGen program and this time we select all of the World Spaces and make sure only Occlusion option is enabled. Occlusion data means the game doesn't have to draw LOD that is hidden behind other Terrain and this improves performance (the eFPS mod does the same thing by manually inserting Occlusion Planes into exterior terrain) Copy the settings below, choosing –TVDT means it will only generate Occlusion Data for cells that don't already have it, which is faster and more efficient than generating it for everything.
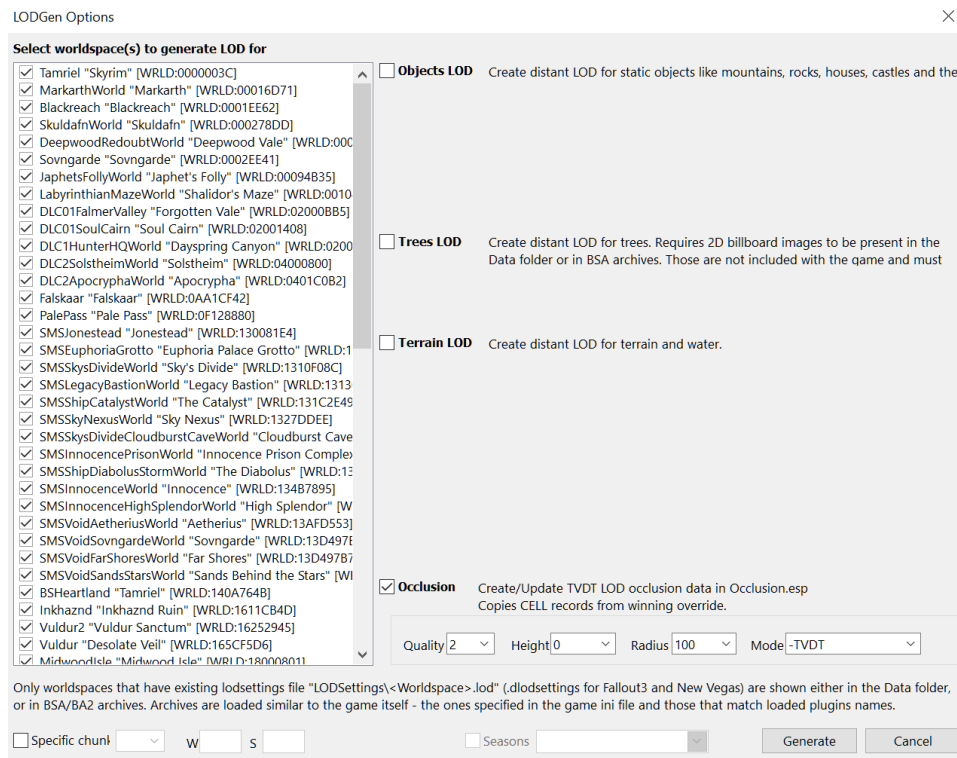
Once you click Generate the process will start and after say 20-30 minutes it will stop. However, it just sits there saying it has finished and no file or file appear in the xLODGen Output folder! Don't Panic. In this case it will not write the Occlusion.esp file until you try to close the program, and when you do, it is written to the game SkyrimVR/Data/ folder recklessly ignoring the preferred file path you added to the Shortcut launcher at the beginning. Vortex will probably flag it up as an invalid .esp immediately. Just locate it and move it to the bloody folder you specified earlier and swear a bit. Then zip it up and drag and drop it into Vortex to install it. Simples...

> ## Dessert: The Proof is in the Pudding

So now comes the Million Dollar Question, the Kool Aid Acid Test and the Moment of Truth, or is that the Pre-Moment of Post-Truth? I haven't checked today's current epistemological trends. Before you jump in a start up your game you can now disable the Terrain Tamriel SE mod and any separate Tree Billboard mods you installed and add [Display] bEnableLandFade=0 to your SkyrimVR.ini file. This can prevent some visual anomalies when the game is switching from LOD to full quality Meshes and Textures etc. If it has worked correctly, you will be able to see reasonably good quality Tree LOD beyond the closest trees and the Model LODs should match the buildings shape, size and colours fairly closely as you approach them (although you will notice the change if you look closely). There will still be some Terrain/Tree/Model pop-in when you are in positions where you can see a long way into the distance for example in the Tundra outside Whiterun. But with a suitably unpleasant Weather mod and a dash of fog and mist you will have a much smoother more immersive experience. If you are still not satisfied you can buy a small tub on Vaseline© and rub it generously into your eyes*** before donning your VR headset and experience Skyrim the way it was supposed to be...

***This guide was not sponsored by Vaseline©, I do not own any shares in the company and I definitely did not receive any free samples in return for gratuitous product placement, honest... 😎

I hope this guide managed to allow someone, somewhere to retain what little is left of any sanity/dignity/hair they managed to hold onto against all odds whilst trying generate LOD for Skyrim VR. I am painfully aware that this isn't necessarily the only way or best way to do it, it is just what worked for me after many months of confusion. If you are still struggling with your addiction why not call the 24hr DynDOLOD helpline, where someone is always on hand to tell you that it is really easy to do and you are obviously just stupid, RTFM....

References & Plagiarism etc: Some of the fragments I found semi-useful online:

Skyrim VR and LOD https://dyndolod.info/Mods/Skyrim-VR

xLODGen Overview https://dyndolod.info/Help/xLODGen

XLODGen Terrain LOD https://thephoenixflavour.com/tpf/finalisation/sselodgen/

ACMOS Road Textures https://www.nexusmods.com/skyrimspecialedition/mods/79205

DynDOLOD Tree and Model LOD https://dyndolod.info/Generation-Instructions

XLODGen Occlusion Data https://dyndolod.info/Help/Occlusion-Data

General Overview https://www.nexusmods.com/skyrimspecialedition/articles/2390

And lots of other random threads on Reddit and Nexus that I can't remember of find... 🥵