8-5-20
https://www.simforums.com/forums/solved-blurry-terrain_topic45007.html

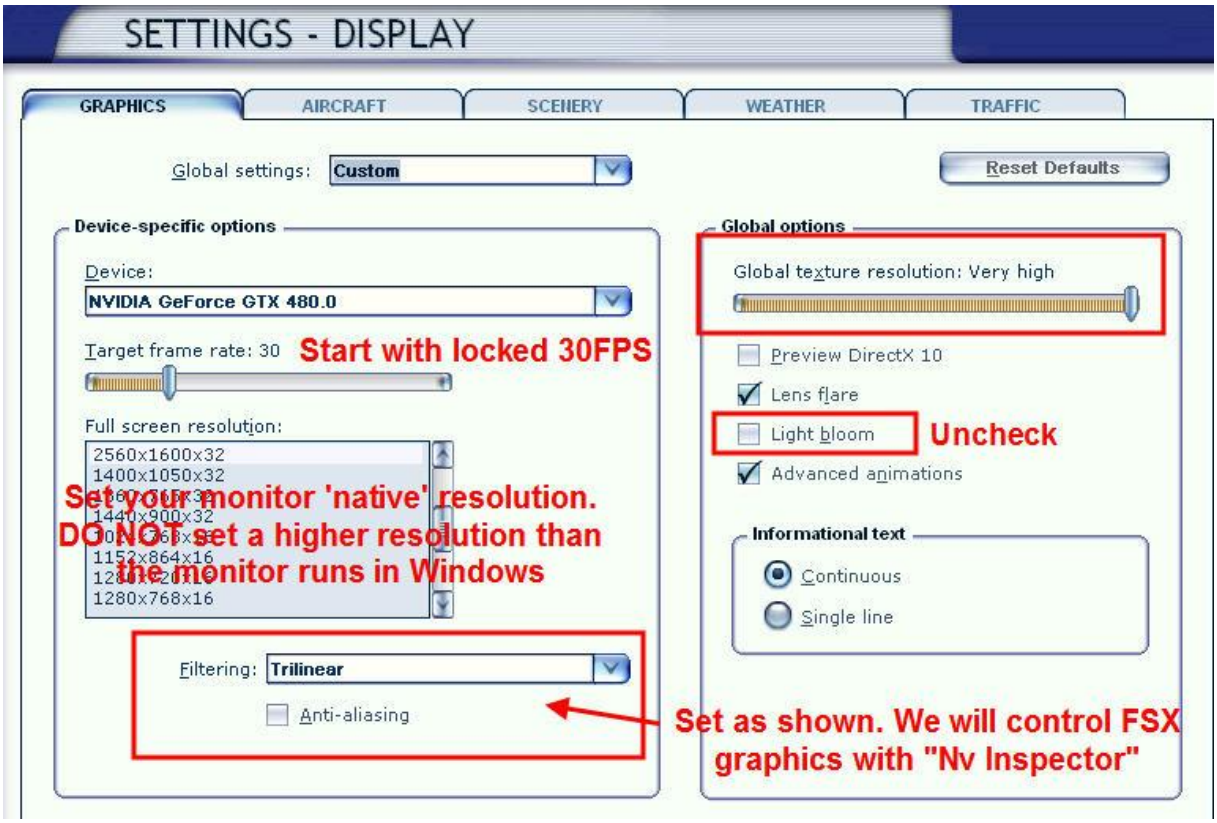
BEFORE YOU BEGIN: If you have not already done so, obtain the software NV INSPECTOR which when set up correctly will OVERRIDE the FSX graphics settings.

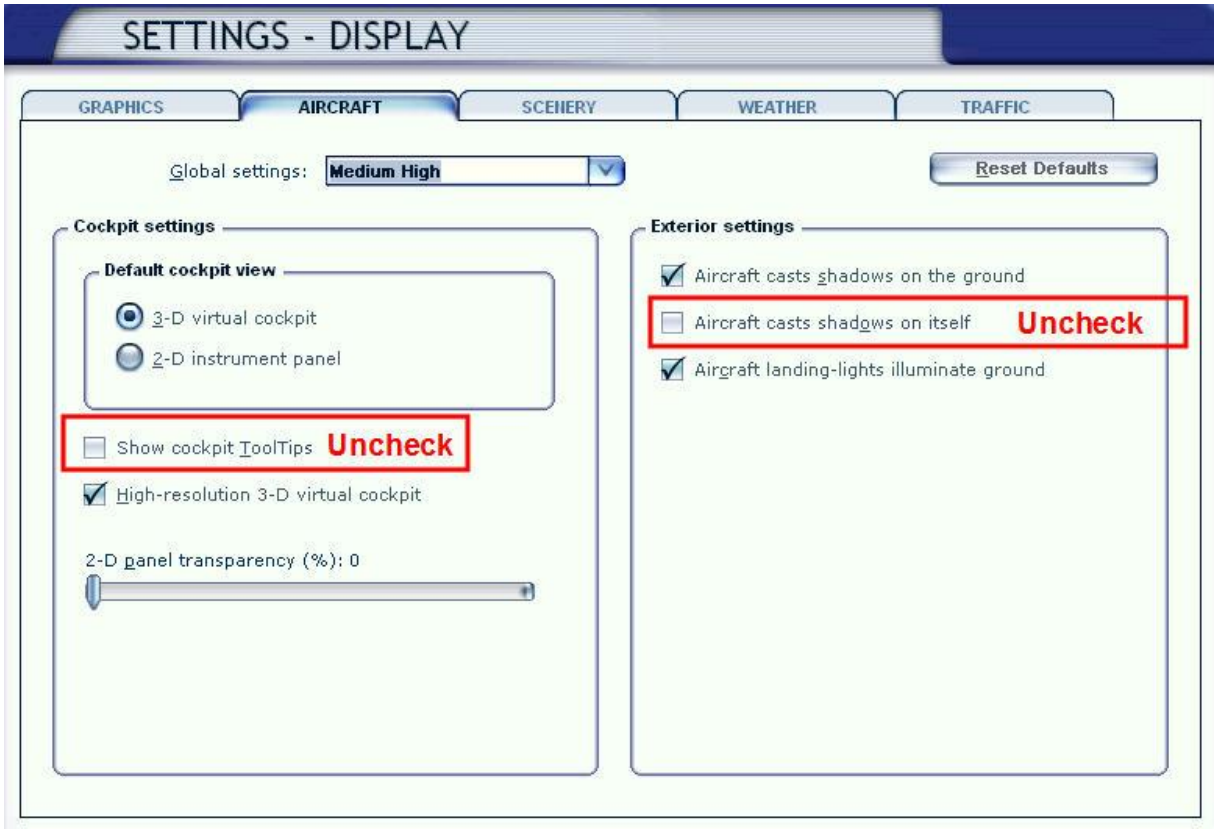
See THIS POST for a link to the software AND how to set it up: http://www.simforums.com/forums/settings-for-new-drivers-updated-v1959_topic36586.html

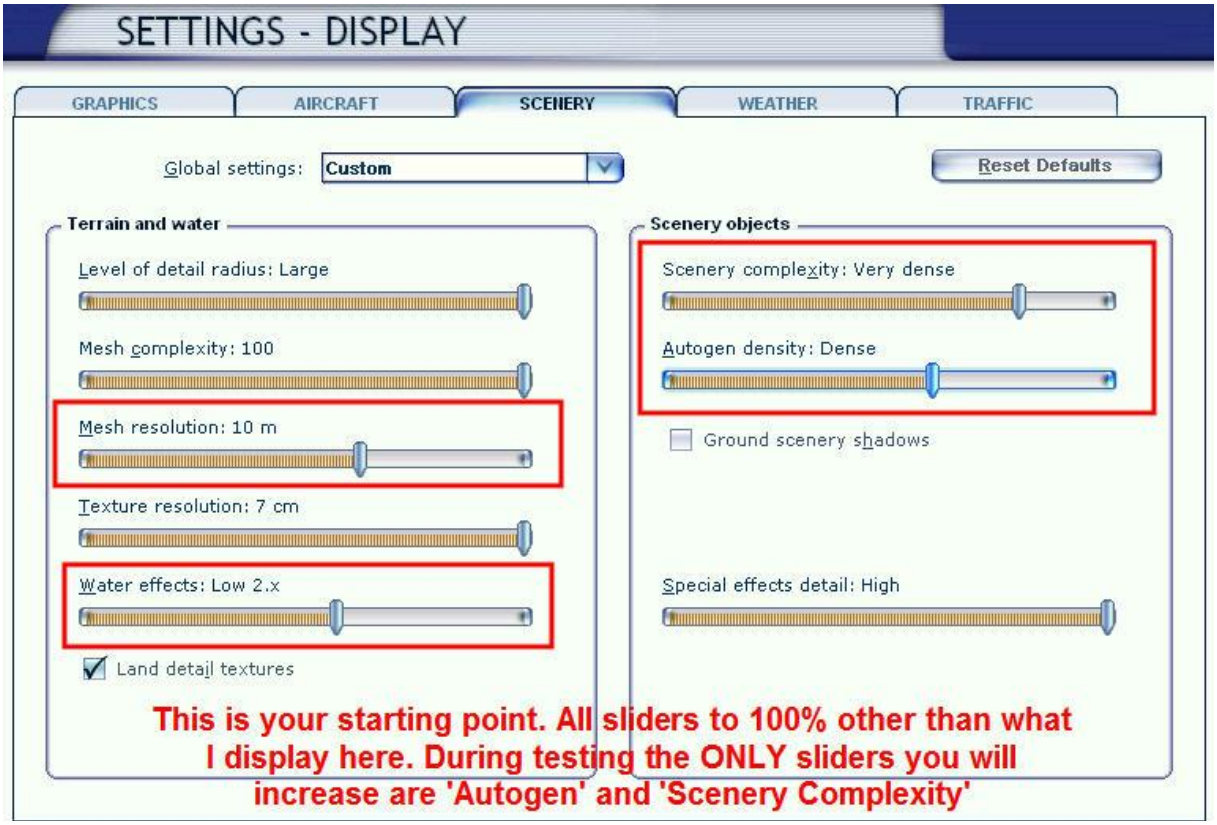
BE AWARE: The first time you set this software up the settings may not 'take'. This is a common issue. After you have set up NV Inspector based on the image I provided and SAVED the settings for the MS Flight Simulator X profile, close the tool, REBOOT the computer and then reopen NV Inspector.. go back to the MS Flight Simulator X profile and RECHECK all the settings.. if a setting did not hold, reset it as defined. From that point on the settings should remain until you UPGRADE the video driver at which point you will need to repeat the process and reset NV Inspector back up.

SETTING UP FSX FOR TUNING

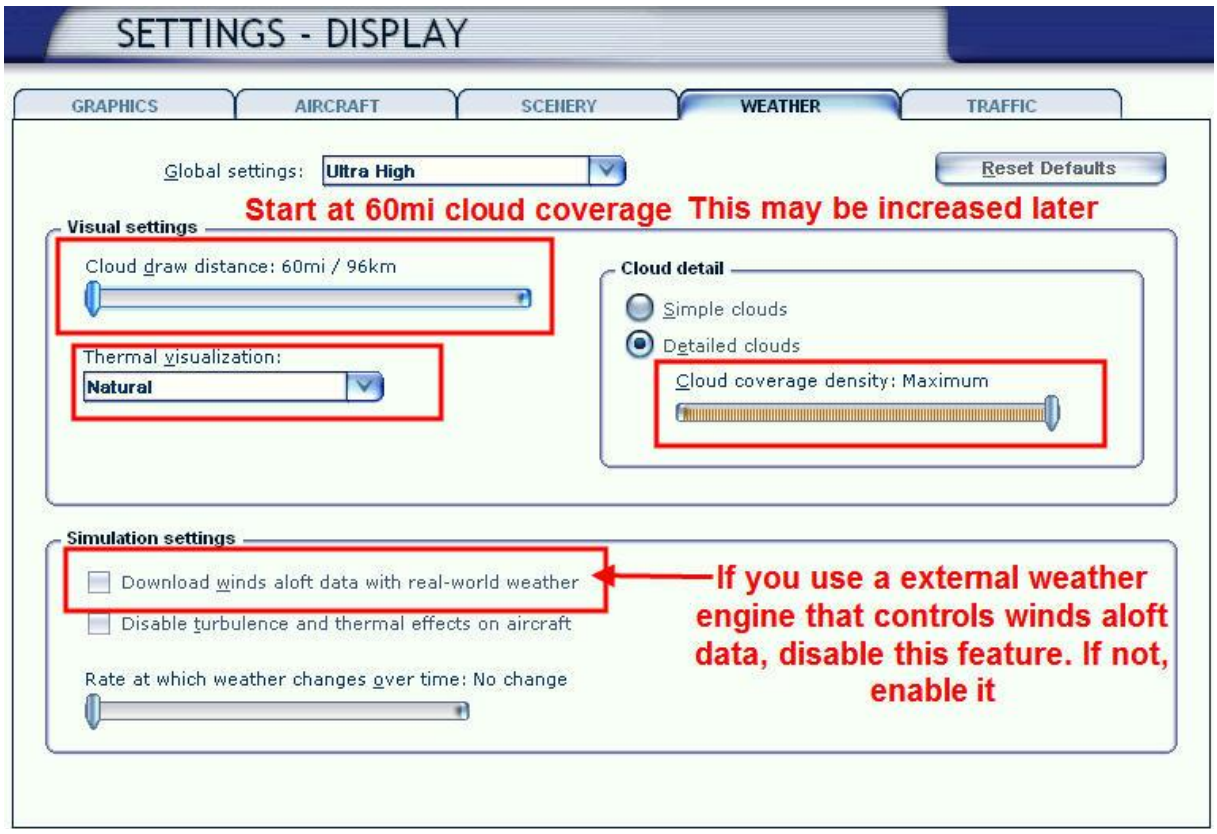
1. Go back to a clean FSX.cfg.. remove the one you have now and start with a new one. Launch FSX and set up the sliders EXACTLY as I show here:

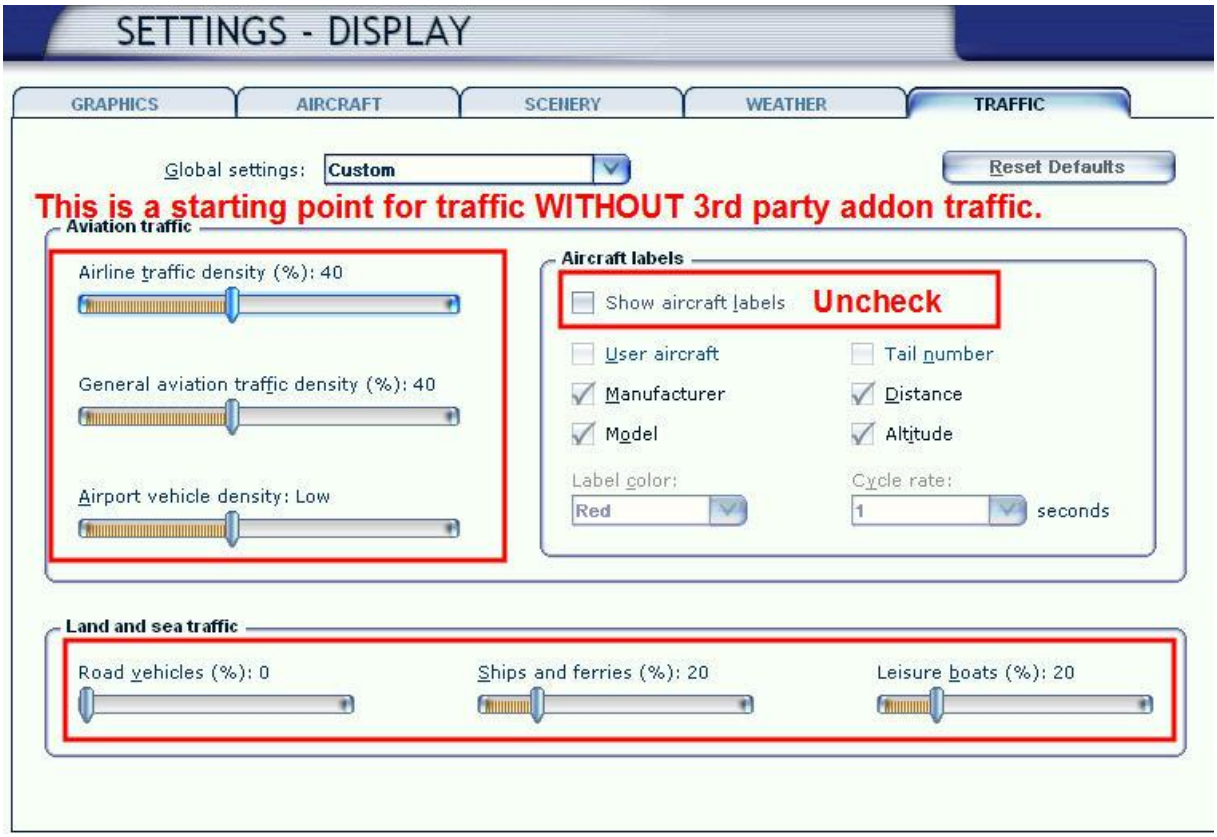






NOTE THAT: If you were using a older quad or dual core processor I would start with MESH COMPLEXITY @ 75%, Scenery Complexity and Autogen a notch lower than displayed above.





NOTE: This ASSUMES you are not using any 3rd party AI Traffic package and only using default FSX. If you are using a 3rd party replacement AI then what I show above may not work. You will either have to temp disable your 3rd party AI traffic OR you will have to set it so it starts out rendering low, increasing the traffic levels AFTER you have established clear/sharp scenery and smooth flight. Adding in traffic is done AFTER you have established your BASE setup so you know that you must DROP a scenery slider to INCREASE traffic.

That is how this works,... GIVE and TAKE

2. Close FSX and make the following changes/additions to the FSX.cfg file. DO NOT add any other entries at this time:

[Display]

WideViewAspect=True //If a 'REAL' widescreen monitor in use, otherwise leave this **False**

TEXTURE_BANDWIDTH_MULT=120

[Main]
HideInfoText=1
DisablePreload=1

[GRAPHICS]
HIGHMEMFIX=1

Save and close the FSX.cfg file.

3. Open the UTX Configuration tool for all the UTX regions you use. For now we are going to disable certain features in every UTX config tool. This will get you started and from there you can enable features and see if the system can handle the render.

I am using the UTX USA tool as the example here:

a. Open the tool and on the list that is displayed expand the NIGHT LIGHTING section. select each night lighting option and then DISABLE each of them in the list. (set them to INACTIVE)

b. Expand the ROAD SURFACES list. Scroll down and select each RTX MOVING TRAFFIC option(s) and select to disable them (set them to INACTIVE)

c. Under ROAD SURFACES make sure the following are disabled (set them to INACTIVE): MINOR URBAN ROADS (residential) Note: this should remain disabled as it is a 'overkill' of roads that will stomp all over the textures and remove autogen. Unless you actually want this feature I have always suggested it never be used.

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NOTE: *There is one more "TEST" setting we are going to make with UTX in the FSX scenery library when it comes to "UTX ROADS" and that is to disable them ALL in the FSX scenery library until you define that running them works for you. This is only a test and you can enable them 'in-sim' as you go along in performance testing/tuning. I will outline that step below. When we do this it not only disables all the roads, it also disables all the 3D bridge objects UTX adds to a scene. The combination of the two elements being removed and then enabled shows us where our system stands with these objects. A city like Amsterdam is LOADED with UTX bridge objects and therefore a test like this can establish if the system is able to deal with these elements or not.*

It is also important to note that the road system in Europe is not like the USA or Canada. Europe roads use a "Roman era" type layout and unlike USA/Canada where the roads follow a established nearly square "grid' pattern, much in the same way the textures are designed, in Europe roads will cancel out far more autogen and overlay the tiles crossing them in such a way they may not appeal to the scene and instead remove the illusion. The user must define if they want to see the roads or not as they will have a large impact on realism with autogen.. see this post for demo images with/without UTX roads in Paris, France: http://www.simforums.com/forums/why-turn-off-rrs-and-roads-utx-europe_topic38085_post223942.html#223942

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4. Start FSX (if you made changes to UTX as outlined above the Scenery database will rebuild) and go to the Scenery Library. Scroll down to the entry: UT <REGION> ROADS. You are going to select the UTX region you are TEST flying, if this test flight is in Europe then select the option: **UT EUROPE ROADS** and uncheck it. If this test flight is the USA then select: **UT USA ROADS** and uncheck it.

Remember, this is only for a TEST. Click OK and let the scenery database rebuild.

5. Setup and start a flight. During this flight you should set your camera zoom to right around 60% since the zoom level in FSX is by default set far too high. A simple way to do this is click the 'minus' key on the keyboard twice as that will get you in the ballpark for zoom level. Also, before you begin this flight set the exterior LOCKED SPOT view/zoom and then pan around the exterior of the aircraft 360 degrees a minimum of FIVE times. This preloads our video card with the scenery and reduces/eliminates initial scenery glitches and stutters. Go back into the cockpit and then begin your test flight.

IMPORTANT: ALWAYS pan around the exterior of the aircraft 360 degrees in LOCK SPOT view before ANY and ALL flights.. this step should always be performed when you first boot ANY flight.

Define how the system is running, how well the scenery renders clearly. Is it running good? Is it clear and sharp?

If so you can THEN BEGIN to increase settings and enable features! But BE AWARE you must not sample a flight for 2 minutes and then make changes, make these changes over a decent test period of time ONE BY ONE and define if the system can cope with them as you go along.

SETTINGS TWEAKING:

6. Make the following changes IN THIS ORDER

a. Increase Scenery Complexity to 100% Observe the results in a large city and around large airports

b. Enable the UTX <REGION> ROADS option in the Scenery Library and click OK. let the scenery database rebuild and the roads will display. Observe the results in a large city and around large airports.

c. Increase AUTOGEN slider 1 click to VERY DENSE. Observe the results in a large city and around large airports. If this is successful increase the AUTOGEN slider to 100%. Observe the results in a large city and around large airports.

AS YOU PERFORM THE CHANGES: If you see the scenery begin to BLUR, the distance becoming MUDDY and blurry or stutters begin to appear you will need to make the ADJUSTMENTS to allow the scenery and system to run smooth. ***IN EXAMPLE:*** Lets say you want the UTX roads appearing however with the roads enabled you find that in larger scenery areas the scenery becomes blurry or the system stutters, THAT MEANS you will need to GIVE UP something to get the roads you want. At that point you may have to leave Scenery Complexity and Autogen as I initially defined and not increase them.

Lets assume you have managed to run 100% Scenery Complexity and 100% Autogen with the UT ROADS enabled and it works great.. NOW, do you want those UTX Night Lights? or Do you want FSX/UTX Car traffic? In order to get those items you will have to ENABLE THEM in the UTX tool (in the case of CAR traffic also set the CAR SLIDER in FSX to about 10%) and then observe the results. You may find in order to run those features now you have to BACK OFF Scenery Complexity and Autogen slider levels. NOTE: YOU MUST CLOSE FSX to make the lighting and traffic changes in the UTX tool, then reopen FSX and start another text flight. Any changes made directly in the UTX configuration tool require FSX be CLOSED.

THIS is how you tune your system. By starting with a BASE SETUP and SLOWLY defining what they system CAN and CAN NOT do. I dont care if we are running a CRAY computer system, we would use the same method outlined above to define and tune FSX.

Once you make it through the initial setup you can begin to add in AIRCRAFT TRAFFIC, increase CLOUD DISTANCE .. these are items you must DEFINE ONE BY ONE till you have established your setup. Be VERY AWARE that tuning a system OUTSIDE a large urban environment will establish the system to run smooth with scenery that is NOT a HIGH END LOAD. ***You should tune your system in a location that has a large urban environment in the scene and then outside of that area your system will run FSX very smooth.***

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ADVANCED TUNING: After you have established the best setup for your system you can try the following to further smooth the render IF the FOLLOWING is understood:

CAN YOU MAINTAIN 25-30FPS with the scenery and settings you run?

IF the answer is YES then you can import a 'BUFFERPOOL' - 1/2 Vsync / 30FPS LOCKED tuning method to FSX.

IF the answer is NO then you will have to BACK OFF the Autogen slider and possibly the Scenery Complexity slider until you see 30FPS maintained with very few drops, then you can apply this method.

BE AWARE: This MAY OR MAY NOT WORK... Your Mileage MAY VARY

1. Open the FSX.cfg file and edit these entries in the list;

[MAIN]
FIBER_FRAME_TIME_FRACTION=0.15 - NOTE: This is system dependant! If you are pushing too much scenery this can BLUR the textures so you must experiment with this and scenery settings. This value can go lower (0.10-0.12) if you do not see any blurry ground textures. The lower you can go the higher the FPS will maintain. This value is TRIAL AND ERROR but start with .15 as shown.

[BUFFERPOOLS]
UsePools=1
Poolsize=8388608
RejectThreshold=262144

Save and close the FSX.cfg file. Open NV Inspector and bring up the MS Flight Simulator X profile. Make the following changes to the VSYNC SETTINGS: (see '**NEW SETTINGS**' below)

Profiles: MS Flight Simulator X | Apply changes

fsx.exe, prepar3d.exe,

SettingID	SettingValue	SettingValueHex
Compatibility		
Ambient Occlusion compatibility	0x00000000	0x00000000
Antialiasing compatibility (DX1x)	0x00000000	0x00000000
Antialiasing compatibility	0x00000000	0x00000000
SLI compatibility bits (DX1x)	0x000000F5 (DX SDK DetailTessellation11 sample, Tom Clancy's H.A.W.X. 2, DX SDK PNTri...	0x000000F5
SLI compatibility bits	0x0240020D (Race - The WTCC game (Steam version), Race - The WTCC game, MS Flight ...	0x0240020D
Antialiasing		
Antialiasing - Behavior Flags	None	0x00000000
Antialiasing - Gamma correction	Off	0x00000000
Antialiasing - Line gamma	Default	0x00000010
Antialiasing - Mode	Override any application setting	0x00000001
Antialiasing - Setting	8xS [Combined: 1x2 SS + 4x MS]	0x00000018
Antialiasing - Transparency Multisampling	Disabled	0x00000000
Antialiasing - Transparency Supersampling	2x Sparse Grid Supersampling	0x00000014
NVIDIA Predefined FXAA Usage	Allowed	0x00000001
Toggle FXAA Indicator on or off	Disabled	0x00000000
Toggle FXAA on or off	Disabled	0x00000000
Texture Filtering		
Anisotropic filtering mode	User-defined / Off	0x00000001
Anisotropic filtering setting	16x	0x00000010
Texture filtering - Anisotropic filter optimization	Off	0x00000000
Texture filtering - Anisotropic sample optimization	Off	0x00000000
Texture filtering - LOD bias (DX9)	0.000	0x00000000
Texture filtering - Negative LOD bias	Clamp	0x00000001
Texture filtering - Quality	High quality	0xFFFFFFF6
Texture filtering - Trilinear optimization	Off	0x00000000
Common		
Ambient Occlusion setting	Off	0x00000000
Ambient Occlusion usage	Disabled	0x00000000
Extension limit	Off	0x00000000
Frame Rate Limiter	Off	0x00000000
Maximum pre-rendered frames	3	0x00000000
Multi-display/mixed-GPU acceleration	Single display performance mode	0x00000000
Power management mode	Prefer maximum performance	0x00000001
Show PhysX Visual Indicator	Off	0x34534064
Threaded optimization	Auto	0x00000000
Triple buffering	Off	0x00000000
Vertical Sync Tear Control	Standard	0x96861077
Vertical Sync	1/2 Refresh Rate	0x32610244

OPTIONAL
This setting is for killing cockpit and other external shimmers. It will increase the load on the system!

New Settings

NOTE: MOST LCD monitors are 60Hz vertical refresh. If you happen to use a monitor that is 120Hz then set "VERTICAL SYNC" to "1/4 Refresh Rate" instead of 1/2.

Save the changes in NV Inspector.

Make sure your FSX FPS slider is set to 30FPS locked. This ONLY works with the FPS locked to the defined refresh rate. In example: If your monitor is 60Hz and we set that to display 1/2 Refresh Rate in NV Inspector, then 1/2 = 30 so we lock FPS in FSX to 30 and LEAVE IT there.

Launch FSX.. NOTE that this tweak is NOT about frames, its about SMOOTHNESS

Test your flight remembering to PAN 360 degrees around the exterior of the aircraft in LOCKED SPOT VIEW at least 5 times.

If this works for you and makes your flights smoothers, leave it. If you find your FPS dropping too low you may need to make an adjustment to traffic, cars, cloud radius, autogen or scenery complexity.. The goal is to set it up so the system maintains or stays very close to 30FPS throughout the flight.

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I have gone far over and above in this thread to explain how to tune FSX. FORGET about how high-end' you think your PC is, and start thinking in terms of: "FSX WILL CRUSH ANY HIGH END SYSTEM INTO THE GROUND UNTIL THE USER LEARNS HOW TO SET UP THEIR PC AND FSX CORRECTLY, THEN LIVE WITH THE RESULT THEY CAN CORRECTLY OBTAIN"

As soon as you start adding in massive CPU impact scenery such as cities, airports and large area scenery packages tish ALL CHANGES AGAIN and you must RETUNE the system for what YOU want to see.

It does not matter if the CPU is running 7GHz initial and fine tuning will always be required with FSX.

Good luck and I hope this helps you.