FSX.cfg File Tweaks

The "FIRST" and "FOREMOST" thing to remember before applying any "tweak" in Flight Simulator X is always remember to “BACKUP YOUR ORIGINAL FILES FIRST”!!!

Should your "tweaking" attempt fail, you will always have the original files to revert to, thus preventing a complete de-install and re-install of Flight Simulator X . There are several files and folders that you will need to backup first. These files and folders are listed in the following sections. I recommend copying these folders to DVD-RW's. The first place I like to start is by modifying the fsx.cfg file. Many people are intimidated by modifying this file, but not to worry.

You did make a backup of this file as described in the "File Backups" section above? If you backed-up your file, let's get started.

Double-click on the fsx.cfg file (for the location of this file, see the text below).
If you are prompted to select a program to open the file,
select "Notepad".

The sections in the fsx.cfg file are categorized by sections stated in brackets.
i.e. [MAIN]

FILE/FOLDER NAME	FILE/FOLDER LOCATION
fsx.cfg file	WINDOWS VISTA USERS: Located in Desktop*****\AppData\Roaming\Microsoft\FSX\fsx.cfg (see below *)WINDOWS XP USERS: Located in C:\Documents and Settings*****\Application Data\Microsoft\FSX\fsx.cfg (see below *)

* = This file may reside on a different drive.

The ***** in the file location refers to wherever your AppData\Roaming\Microsoft\FSX (Windows Vista) or Application Data\Microsoft\FSX (Windows XP) file resides. This may be the name of your system, or perhaps Administrator.

This file can only be accessed by opening your "Computer" (Windows Vista) or "My Computer" (Windows XP), then clicking on the "Tools" tab, then "Folder Options", then "View". Make sure that you have checked the box next to "Hidden Files and Folders" and "Show Hidden Files and Folders".

TWEAK #1 - FIBER_FRAME_TIME_FRACTION

To reduce this cause of the blurries, Microsoft has reworked how Flight Simulator X scheduler prioritizes background tasks in FSX. Now much more CPU time is devoted to loading scenery data, including terrain textures, at the expense of somewhat lower frame rates. In my opinion, this change has mostly solved this cause of the blurries, although the scenery loader can still get behind at extremely low frame rates (less than 10 fps) or at very large airspeeds (faster than 600 knots).

There are several ways to adjust how much CPU time FS devotes to loading scenery and textures. The easiest way is to set the target frame rate slider to a value that your machine can consistently achieve. The lower you set the slider, the more CPU time is diverted from rendering to loading data. Another thing you can do is to modify the following variable in FSX.CFG:

FIBER_FRAME_TIME_FRACTION=X.XX

This variable determines the amount of CPU time given to loading scenery data as a fraction of the time spent rendering. For example, the default value of 0.33 means that for every 3 milliseconds spent rendering, FS will give 1 millisecond to the scenery loader. If necessary, you can use a larger value to devote more time to loading (any number between 0.01 and 0.99). Or, if you don't have a problem with the blurries and you want slightly higher frame rates, then you can use a smaller value.

Should you choose to use this "tweak", here's how to do it:

Insert a line directly under the [MAIN] section and enter

FIBER_FRAME_TIME_FRACTION=0.33

Experiment with the number entered here and adjust them to your taste for a balance of quality & speed. It has been reported that for true photoscenery depending on your PC specifications, you may need to set this value as high as
0.50 or even 0.66.

* * * For Dual Core Users * * *
I have found that a setting of 0.01 - 0.20 will allow you to have your Autogen set to "Very Dense" and maintain a Frame rates of 20 - 100 FPS rate (depending on your area of flight - FPS will be higher in rural areas and lower in large cities).

TWEAK #2 - TEXTURE BANDWIDTH

Since the release of SP1 and the software modifications allowing FSX to operate utilizing multi-cores, the default value of TEXTURE_BANDWIDTH_MULT (40) should be lowered. In the past we would have had to increase this value, since FS used to operate utilizing only 1 processor (on multi-core machines). How much you can decrease this value before you start to experience side effects such as increased stuttering depends on your system, particularly the amount and type of main memory, the type of graphics card and the amount of graphics card memory.
I recommend a setting of 30.

Should you choose to use this "tweak", here's how to do it:

Under the [DISPLAY] section, change this line to read

TEXTURE_BANDWIDTH_MULT=30

TWEAK #3 - REMOVING ANNOYING DISPLAY MESSAGES

Turn off the red warning text message for brakes, pause, etc.

Should you choose to use this "tweak", here's how to do it:

Under the [DISPLAY] section, change this following lines to read

InfoBrakesEnable=False
InfoParkingBrakesEnable=False
InfoPauseEnable=False
InfoSlewEnable=False
InfoStallEnable=False
InfoOverspeedEnable=False

You are changing anything that reads "True" to "False"

TWEAK #4 - IMPROVING AUTOGEN

This tweak adjusts the number of Autogen objects are rendered in Flight Simulator X. The values I recommend below are what I am currently using and I have had substantial increases in frame rates without sacrificing Scenery Quality.

Should you choose to use this "tweak", here's how to do it:

Insert the following (2) lines directly under the [TERRAIN] section

TERRAIN_MAX_AUTOGEN_TREES_PER_CELL=400
TERRAIN_MAX_AUTOGEN_BUILDINGS_PER_CELL=3000

Replace the numbers with a number between 0 and 6000. The lower the number, the fewer autogen objects will get displayed and the greater your frame rates might be. The actual number used by FSX will scale based on your Autogen Density Slider in FSX. In other words, the slider still has an effect, this just changes the scale of the slider. I have found that using 400 in the TERRAIN_MAX_AUTOGEN_TREES_PER_CELL section and 3000 in the TERRAIN_MAX_AUTOGEN_BUILDINGS_PER_CELL section gives a nice balance of speed and quality. However, I prefer more speed, therefore I have adjusted this setting as listed below:

My FS is set to:
TERRAIN_MAX_AUTOGEN_TREES_PER_CELL=300
TERRAIN_MAX_AUTOGEN_BUILDINGS_PER_CELL=500

TWEAK #5 - DISABLE PRELOAD FOR FASTER LAUNCH TIME

This tweak disables FSX from preloading the default flight to reduce load time once you click "Fly Now". If you change settings or start location, the preloading process starts over again.

Should you choose to use this "tweak", here's how to do it:

Add the following to the [Main] section:

DisablePreload=1

TWEAK #6 - BUFFERPOOLS

This tweak helps reduce the popping & stuttering that you may be experiencing when turning or panning around your aircraft from the outside view. The Bufferpool is the amount of memory used by the system to quickly re-introduce textures.

The default value for SP1 is 4000000, however to help reduce the stutter even more, you can use any value above 4000000. Some users are even using settings as high as 12000000.

Should you choose to use this "tweak", here's how to do it:

Add the following command:

[BUFFERPOOLS]
PoolSize=6000000

TWEAK #7 - MULTI-CORE SETTINGS

This tweak sets FSX to accept multi-core systems by adding the [JOBSCHEDULER] command. There are several variants that can be applied to the settings depending on if you have single, dual, tri or quad-core system.

Should you choose to use this "tweak", here's how to do it:

Add the following command:

[JOBSCHEDULER]
AffinityMask=n

"n" refers to the number of cores scheduled
1 = 1 core 0001
3 = 2 cores 0011
7 = 3 cores 0111
15 = 4 cores 1111

Since I am utilizing an AMD Dual-Core Processor on my system, my FS is set to:

[JOBSCHEDULER]
AffinityMask=3