



## WELCOME TO THE “REAL” WORLD!

You may not know it yet, but your purchase of this product has afforded you the ability to fly over the most realistic representation of the real world you can get in Microsoft's FSX/FSX:SE and Lockheed Martin's P3D. MegaSceneryEarth 2.0 (MSE 2.0) is, in fact, history making... No other photoreal scenery project in the history of Flight Simulator covers as much area as this does, and no other scenery project delivers such massive photoreal areas in high definition 50cm/pixel textures. You will NOT find another scenery series with such massive coverage (approx 3,119,885 square miles, and growing) at this resolution anywhere else.

**You are experiencing history in the making in Flight Simulator...**

*“Enjoy The Most Realistic Flight Sim Scenery Possible And With Smoother Framerates! Now Fly All The Places You've Always Dreamed Of Flying, Not To Mention Your Home State, In Hyper-Real Detail With The World's Most Realistic And Largest Collection of Photo-Scenery, Created From High Resolution Aerial Photography, For Microsoft Flight Simulator X.”*

## SYSTEM REQUIREMENTS

There are only a few specific computer requirements needed to use and fly with MegaSceneryEarth 2.0 products.

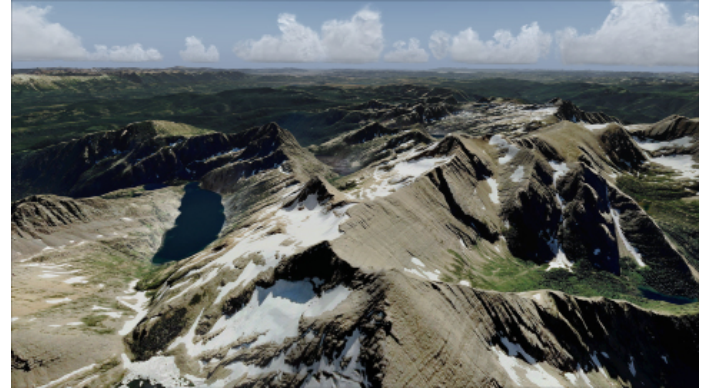
1. FSX / FSX:Steam Edition / P3Dv1.x / P3Dv2.x
2. Enough hard drive space to hold the scenery files.  
Requirements for drive space are listed in the product description of each MegaSceneryEarth 2.0 package.

Due to the fact that MSE 2.0 scenery runs BETTER than default Microsoft scenery for any given area, as long as you have FSX / P3D running well, there are no other specific hardware or software requirements needed beyond the aforementioned items.

## WHAT IS MEGASCENERYEARTH 2.0?

To put it simply, MegaSceneryEarth 2.0 places high-resolution images from the real world directly into your Flight Simulator world, so you are essentially flying over a “real” world in your virtual world!

We take massive amounts of real aerial imagery, we convert that imagery for use in your sim, then we place it in the right location. So EVERYTHING you find in the real world is replicated in your sim scenery for ANY location covered by the particular MSE 2.0 scenery package you have purchased. A picture speaks a thousand words, so here is a screenshot from FSX with MSE 2.0 textures added...



Over Montana, USA.

The screenshot above shows just how real your next flight will be with MSE 2.0 scenery added to your simulator world.

Every single square inch of scenery is UNIQUE! Gone are the days of having to endure with boring, repeating textures in your Flight Simulator world. With MegaSceneryEarth 2.0, you will NEVER see the same texture repeated again!

MegaSceneryEarth 2.0 is not a generic default texture replacement pack. It is not a “landclass” upgrade. Those products that modify these default FSX/P3D textures and files do not depict the real world in any form even close to how MSE 2.0 scenery can replicate it.

Further into this user guide, we will show you exactly how you can get the stunning MSE 2.0 photoreal textures to show at their optimal clarity and resolution in FSX / P3D, and you will be able to take stunning screenshots just like the one above. Better yet, the scenery looks even better when it is in motion as you fly overhead.

**You'll never go back to regular scenery again!**





*Over Wisconsin, USA.*

## SIM SCENERY FILE STRUCTURE

Scenery in FSX / P3D is contained in .BGL files. "BGL" stands for BAO Graphics Language, "BAO" referring to Bruce Artwick Organisation, who were the original developers of the Flight Simulator code. The sim code reads the contents of the BGL files to determine what to display in your simulated world, and where.

MegaSceneryEarth 2.0 products are a collection of BGL files which combine to provide FSX / P3D with the instructions to display the photoreal imagery in your simulator.

BGL files are generally found in \Scenery subfolders of the Flight Simulator directory. You will not have to worry about where these folders need to be placed on your hard drive as our MegaSceneryEarth Install Manager will automate this process for you for hassle-free installation.

## THE FSX SCENERY LIBRARY

While BGL files tell Flight Simulator what to display and where to display it in your virtual world, the function of the Scenery Library is to tell the software where to find these BGL files on your hard drive. It is a reference library of "links" to where your BGL



*Northern Portugal.*

files exist. Again, the Install Manager included in your MSE 2.0 package handles the addition of the scenery library entry for you automatically, so in most cases, you will not need to worry about this aspect of installation. If, for some reason, your MSE scenery is not showing as expected, check the FSX / P3D Scenery Library for the entry pertaining to the MSE scenery state you have installed. If it is not listed, you can try and manually add it. Information for doing so can be found in the FSX Learning Center, accessible from the main menu of the simulator.

## USING THE MEGASCENERYEARTH 2.0 INSTALL MANAGER

We have now made it very simple to install our scenery products into Flight Simulator. As you may have realized, MSE 2.0 packages contain a very large amount of data. So much data in fact that, for ease of download or delivery, we split this data into smaller, more manageable parts. The MSE 2.0 Install Manager makes the task of managing these many smaller parts extremely simple, saving you a lot of time and effort.

With recent versions of the Install Manager, you can install your scenery direct from the downloaded ZIP files. There is no longer any need to first unzip your files before installation!

This means you can just download the MSE scenery zip files straight to your hard drive, and run the install manager thereafter. It is now truly a “One-Click” procedure in most cases.

MegaSceneryEarth Install Manager is a utility that makes installation of your MegaSceneryEarth states a “one-click” procedure as opposed to the previous requirement to manually run each installer (e.g. Montana\_Setup\_001.exe) of the multiple installers for each state or country.

**Now you can simply click “Install” and walk away while the utility optionally unzips, runs and installs all of the files for one or more states or countries at a time.**

The Scenery Install Manager is portable meaning that you do not have to install it. Instead you simply need to save it into the directory/folder where you store all of your MSE installer parts (.zip files or .exe files).

When you run the utility it will detect all of the MegaSceneryEarth 2.0 installers or zip files in the directory/folder. You can choose individual files to install or select all at once. The utility will also install the chart package.

## Download Instructions

You can download MegaSceneryEarth Install Manager From This Link: <http://www.megasceneryearth.com/files/MegaSceneryEarthInstallManager.zip>

## Usage Instructions

1. Choose a directory/folder on your hard drive that you will use to store your downloaded installers. For these instructions we will use Montana as an example directory

*D:\MegaSceneryEarth\_Downloads\Montana*

Of course you can use any folder or drive on your PC.

It is not necessary to unzip your download files.

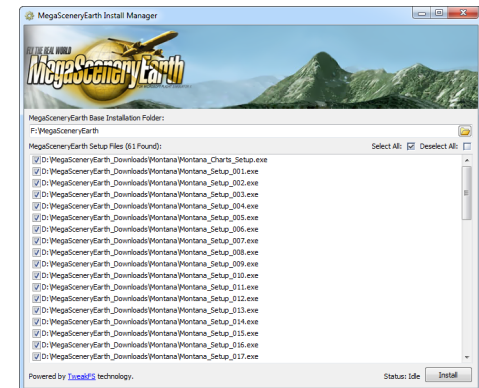
MegaSceneryEarth Install Manager will do it for you and will then run the installer file automatically after it is unzipped.

**IMPORTANT:** *Since you will not need your zip files after they are unzipped, Scenery Install Manager will automatically delete the zip file once it has been unzipped. It will not delete the .exe file. It is important that you don't delete the .exe files and keep them for future installation needs. If you need to conserve disk space then move the .exe files to a separate hard drive or DVD media after you have installed them. It's a lot more convenient than having to redownload them.*

2. Save and unzip MegaSceneryEarthSceneryInstallManager into the folder *D:\MegaSceneryEarth\_Downloads\Montana*

3. Then simply double-click on MegaSceneryEarthInstallManager.exe to launch it.

4. The program will launch and will display all installers present in the directory *D:\MegaSceneryEarth\_Downloads\Montana*



MSE Install Manager Showing Files Ready To Install

5. At the very top you will need to select the MegaSceneryEarth Base Installation Folder location. We recommend (though not essential) that you use the name MegaSceneryEarth but it can be any drive you like e.g. C:\, D:\, F:\. You can also use the folder icon on the right to manually select a folder via the browse function. In the screenshot, we are going to install all our Montana scenery into F:\MegaSceneryEarth.

If the folder name you have selected doesn't exist, the program will ask if you wish to create it.

**IMPORTANT:** You don't need to enter the state name. Just MegaSceneryEarth or other appropriate name. The state will automatically be created in the folder structure upon install.

6. To install all files in the folder simply click on "Select All" or to select specific titles then "Deselect All" and manually select the areas you wish to install.

7. When ready press "Install" and the Install Manager will automatically install ALL selected setup files. It typically takes 30 seconds to 2 minutes per installer. If your files are still in .zip format you do not have to unzip them. MegaSceneryEarth Install Manager will automatically unzip each file, save a copy of the imbedded .exe file it contains, then delete the zip file, and then run the installer for that file. The file size of the extracted .exe and the original .zip file are identical, so there is no benefit in retaining .zip files for archive purposes, and hence they are removed.

8. The program will indicate when it is complete.

9. Then simply launch FSX / P3D and go to any airport in the state you just installed and the scenery will automatically display.

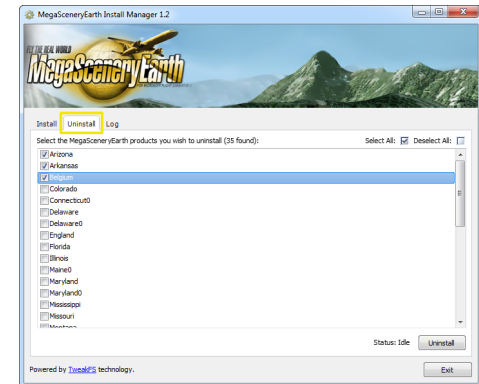


Suburbs of Pittsburgh using MSE Ultra-Res Cities Scenery.

## Uninstalling Scenery

MegaSceneryEarth Install Manager can also remove (uninstall) any MSE scenery files previously loaded. Simply select the "Uninstall" Tab from the main screen and a list of all installed MegaSceneryEarth titles will display. Simply select the titles you wish to uninstall.

Please note that the uninstall process will only uninstall an entire state at a time and not individual tiles.



Use The "Uninstall" Tab To Remove Existing MSE Scenery

## Usage Tips and Additional Information

1. For the utility to work correctly please do not rename the installer files. E.g. Montana\_Setup\_001.exe must remain as Montana\_Setup\_001.exe or Montana\_Setup\_001.zip must remain as Montana\_Setup\_001.zip.
2. Fastest install performance is achieved if your installation files are on a separate physical hard drive to the drive your files are going to be installed onto. This is not essential but can reduce installation times by around 50%.
3. For ease of use and avoiding future inconvenience, store your downloads for each state in their own folder then save a copy of MegaSceneryEarth Install Manager into each folder. Or you can order backup DVDs with your download from PC Aviator.



## Installing from a Networked Drive

If you save/download your files to a networked drive and are installing from that drive you may get a prompt from your operating system requiring permission to run the file for each installation. This prevents fully-unattended installations. To stop this problem from occurring you will need to make the following minor change to your Internet Options Security settings:

1. Go into Control Panel or run Internet Explorer.
2. Select Internet Options (In Internet Explorer select Tools > Internet Options)
3. Select Security
4. Select Zone – Local Intranet
5. Select Custom level
6. Scroll down to Miscellaneous (about ¾ of the way down) and locate Launching Applications and UNSAFE files
7. Select radio button ENABLE
8. Then select OK to apply the option.
9. You will now no longer be prompted to allow each file to run. Please note that this may make your system less secure for other potentially dangerous applications stored on your network.



*The Stunning Farmlands of South-Eastern Belgium.*

Once you have your MegaSceneryEarth 2.0 package successfully installed, all that is left to do is load up your Flight Simulator and start enjoying the scenery.

If you find that the textures do not appear to be as sharp or as crisp as those you have seen on official MSE product pages, you might want to try adjusting your Flight Simulator and Graphics cards settings to get the best result.

We highly recommend you consider tweaking your settings to get the maximum visual enjoyment and clarity from MSE textures. Many of these options can be easily changed, and the result can be an amazing improvement in the sharpness and clarity of your virtual world with MSE 2.0 textures.

*Remember... It is not the MSE imagery itself that causes blurry textures (the MSE textures do not change their resolution at all), it is your FSX / P3D and/or graphics card settings that are the main factor in determining how the photoreal textures are displayed in your simulator.*

## TWEAKING YOUR SYSTEM FOR THE BEST MSE 2.0 EXPERIENCE!

Through many hours of testing different settings in both Flight Simulator and with regard to graphics cards, we have found a combination of settings that appear to deliver the best results in displaying MegaSceneryEarth textures with maximum clarity and which display them at their highest resolution.

What follows is our “guide” to tweaking for best MSE performance. Please note that this is a guide only. We do not guarantee you will achieve the best visual results on your particular system using these settings, nor have we tested these settings using a full range of video card models or associated video card driver sets. In all cases, where possible, we recommend making backup copies or recording your current graphics or flight simulator settings in some suitable form before making and saving changes suggested below. In almost all cases, it has been shown that a little tinkering of your settings drastically improves how MSE scenery looks on your screen!

To ensure you are seeing the best photoreal texture quality with your new MegaSceneryEarth 2.0 package, it may be necessary to make some adjustments to your sim's display settings, as well as to your video card settings to ensure these elements are not the cause of "degradation" of the MSE 2.0 textures.

Use this information below as a GUIDE ONLY. We do not claim it will work for all video cards, or for all users. But if you are not seeing the same level of detail and clarity in MSE 2.0 states that you see with our screenshots, then you will likely need to tinker with your settings to achieve best results.

1. In your FSX.cfg file, change the **LOD\_RADIUS** setting from 4.5 to at least 7.0 or 8.0. (make a backup of your fsx.cfg file before adjusting of course in case you want to revert later). This will result in slightly longer initial load times, but the scenery will render much sharper further into the distance in most cases. It makes a big difference! The radius number you use will depend on your PC and video card specs somewhat, but try not to exceed 9.0 at the very maximum. 7.5 seems a good option for those with GTX660 or GTX760+ cards. If you cannot locate your FSX.cfg file (because it does not sit in the same folder as your main FS files) a quick internet search for "locating fsx.cfg file" will generally point you in the right direction.
2. If you own an nVidia-based graphics card, go into the nVidia Control Panel and set your **Anisotropic Filtering** to 8x. We found at 16x or above that this setting tends to smooth off the textures a little more, whereas 8x retains the full clarity. This effect might differ for your card but just tinker and see what works best.
3. Naturally, the higher your FSX screen resolution is set to, the better your MSE textures will appear. **Ideally you would run at 1920x1080x32, or higher if your card supports it.** If not, choose the highest resolution available. This setting is found within FSX in the Display Options area (First Settings Tab). Since MegaSceneryEarth does not use resource-consuming autogen-objects, your video card should have no problems being set to its highest-resolution level and running MSE scenery smoothly in any circumstance. In fact, you will likely

find that MegaSceneryEarth delivers far better frame rates than default FSX / P3D scenery, due to the fact that resource-consuming autogen objects are disabled.

4. The best "zoom factor" to use in the cockpit or virtual cockpit view in Flight Simulator is 0.30, although 0.40 will sometimes produce less "fish-eye" type distortion. Setting zoom any higher than 0.40 tends to cause slight blurring of the textures. The higher the zoom, the worse the blurring gets. 0.40 is the best compromise, however, you might find 0.30 works fine without distortion, depending on the aircraft you are flying at the time. To set zoom factor, just click anywhere on your primary view screen, then use the "+" and "-" keyboard keys to zoom the active view in or out in increments. The zoom factor that is set will be displayed in small red text in the top right corner of your screen.



*"Real" Scenery... As Far As The Eye Can See!*

And lastly, here are our nVidia graphics cards settings, for your reference only. We don't guarantee these will give you the best results, but feel listing them might give you a better chance to see MegaSceneryEarth 2.0 sceneries how they are made to be best seen. Remember to record or save your current settings first! Note that these settings will be quite similar for virtual pilots using Radeon cards as well. The names of the various settings may differ slightly however. If in doubt, please consult documentation or relevant websites specific to your graphics card.

- **Ambient Occlusion:** Performance
- **Anisotropic Filtering:** 8x
- **Antialiasing - FXAA:** Off
- **Antialiasing - Gamma Correction:** On
- **Antialiasing - Mode:** Override any application setting
- **Antialiasing - Setting:** 16x CSAA
- **Antialiasing - Transparency:** Off
- **CUDA - GPUs:** All
- **Maximum pre-rendered frames:** 3
- **Multi-display/mixed-GPU acceleration:** Compatibility performance mode
- **Power management mode:** Adaptive
- **Texture filtering - Anisotropic sample optimization:** Off
- **Texture filtering - Negative LOD bias:** Clamp
- **Texture filtering - Quality:** Quality
- **Texture filtering - Trilinear optimization:** Off
- **Threaded optimization:** Auto
- **Triple buffering:** Off
- **Vertical sync:** Use the 3D application setting

## PHOTOSCENERY LIMITATIONS

Photoreal add-ons, particularly those like MegaSceneryEarth that cover a massive amount of area do come with certain limitations in their scope that need to be described and explained. What you will read below are the reasons why certain aspects of scenery design or scenery features cannot be, or are very difficult to include in this type of scenery package.

### Auto-generated Objects

These objects which are commonly simply known as “autogen” or even just “AGN” are the objects you see in default FSX scenery in the virtual world. These are most commonly trees and houses/ small buildings. While autogen object can indeed be placed over

photoscenery tiles, it requires a designer to mostly hand-place or trace-out areas of any given location to display a tree, house or specified object. This process is extremely time consuming, and scenery developers can spend months on placing and assigning autogen objects accurately to just very small areas of say 20 - 30 square miles. Considering an average MSE package covers closer to 20,000 square miles, it could take years for a designer to accurately place autogen for such a large area. This is not practical or viable from a commercial sense. While we would love to be able to provide accurate autogen for all our products, the end result would be a massive increase in product cost to cover the development time. Please note, however, that there are products available on the market (produced by other developers outside of the MSE team) that can add autogen objects to particular parts of the world. These may work with MSE products, but compatibility or accuracy of their placement is not guaranteed. Many hand-placed and special objects added into FSX / P3D will still appear on top of MSE textures in the simulator.

### Seasonal and Night Textures

You may notice that MegaSceneryEarth products contain imagery for just one season of the year (usually Spring). Regardless of what season you have set to fly in, you will still see the one seasonal texture set displayed. *Why don't we have multiple season imagery?* Quite simply, for each season of the year, a whole new, separate texture set needs to be created. Take for example an average MSE USA state scenery package. It might comprise 25 Gigabytes of data. This 25 Gigabytes includes one season of imagery. To offer different-toned imagery for other seasons of the year, that product size balloons four-fold to 100 Gigabytes. This is not practical. In addition, we source our imagery from imaging companies. They generally only capture actual aerial imagery for one season of the year. This means, to create a winter season imagery set in an area of the world that sees snow, one would need to meticulously hand-paint “snow-like” texture on an area of land that is incredibly large in size. The same problem exists here as with autogen creation... This would be massively time consuming, and would contribute to far greater product cost, and in this case, far greater data requirement too. The same limitation applies to night-time textures. These would have to be hand-rendered.





In terms of night lighting, default or add-on night lighting like that supplied with the *Ultimate Terrain X* or *Night Environment* series of products will generally “show through” MegaSceneryEarth textures.

### Water-Masking Issues

Water masking is the process of “telling” Flight Simulator where to **replace** photoreal textures with default or standard FSX water textures and water scenery type, primarily to allow the aircraft to land on water, and have that water act like water in the normal Flight Simulator environment.

There are numerous issues inherent when trying to watermask a photoreal area. The major problem is that default Flight Simulator scenery is relatively “blocky” and not terribly accurate in its placement in the virtual world. On the flip side, MegaSceneryEarth imagery is very accurate, and very detailed. Far more detailed than default scenery in its placement and data resolution in fact.

When we go to watermask photoreal imagery, we are essentially “cutting out” sections of water that we see on the imagery. The result is that whatever lies underneath this cut-out area in Flight Simulator will show through the watermask or blendmask used. This creates a visual problem and inaccuracy, and you will find areas of water or blendmasking in MSE where you will see default scenery showing through, sometimes with associated autogen objects too.

The only way to correct this is to provide exclude files for every instance where this occurs. Because the MSE coverage area is massive, it is extremely time consuming to go in and fix every occurrence of this issue, pixel-by-pixel. Doing so would add potentially years of development time to an individual product, and the cost would skyrocket accordingly.

We have chosen to provide basic watermasking only with MegaSceneryEarth products, so we can keep development costs low, and hence, be able to offer you the lowest price possible for the experience of high-resolution photoreal scenery in Flight Simulator.

**In fact, MegaSceneryEarth is by far the cheapest photoreal scenery series that covers large regions that has ever been created**, allowing you to enjoy more of the real world in your flight simulator for less - something we think you will find attractive!

## TECHNICAL SUPPORT

The following technical support services are available from the developer/publisher for the MegaSceneryEarth line of photoreal scenery products. At PC Aviator, we are not happy with your purchase unless you are happy with your purchase! Please allow us to help you if you have questions or a problem with our products:

## ONLINE SUPPORT

Your first port of call should be the official MegaSceneryEarth website at [www.megasceneryearth.com](http://www.megasceneryearth.com) - Here you can find the latest information and updates for MegaSceneryEarth products, as well as tips and tricks for using photoreal scenery. You can also contact us via this site for specific technical issues you might have with the product.

If you would like to ask a general question, or keep up to date with new releases or discussions about the MegaSceneryEarth series, you can visit our forums online at: <http://pcaviatorforums.com/>

Browse to the MegaSceneryEarth 2.0 General Discussion Forum and ask your question or post your thoughts there. Please be aware that this is a public forum, and we do welcome constructive banter and general discussion on the MSE line.

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**Live Support Chat:** Via our website (when manned)

**Online Store:** <http://www.pcaviator.com.au>



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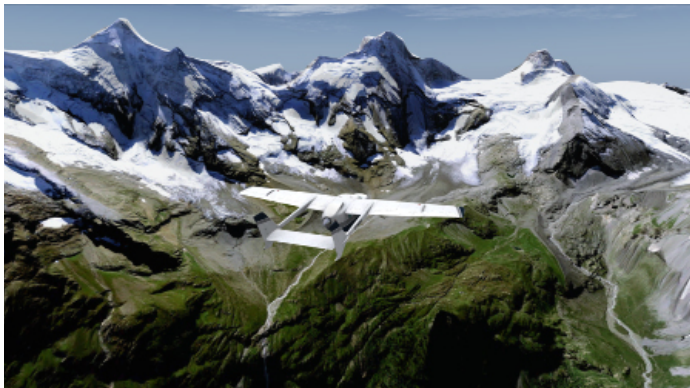
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*The Swiss Mountains Have Never Looked Better!*