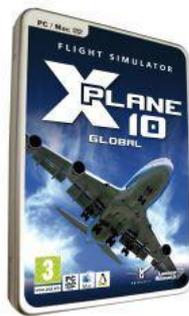


# X-Plane 10

Laminar Research • John Melville

I have always been a Microsoft Flight Simulator user and only rarely and briefly dabbled in FS alternatives such as the likes of Flight Unlimited or, even more rarely and briefly, Combat Sims such as IL2 Sturmovik. I was always drawn back to the Microsoft stable – largely because everything was so familiar and because of the almost endless tweak-ability possible, and add-ons available. So it was not with a little sense of “what have I let myself in for!” that I volunteered to take on a review of the latest incarnation of the X-Plane series, namely X-Plane 10, by Laminar Research. To add to the challenge, I had never used any of the versions of X-Plane prior to this one. As fate would have it, I suffered a catastrophic hard disk failure around the same time as I obtained the review copy [nothing of course to do with X-Plane]. But every cloud has a silver lining because, with a new hard-disk installed, I was back to Windows XP from the dreadful Windows Vista, and as well as that, with both FS9 and FSX temporarily out of commission, I now only had one sim on my PC and could focus without distraction on X-Plane 10 only!



San Francisco

My 'X-Plane 10 – Global' (supplied by Aerosoft) review copy was packaged in a robust and attractive metal case. Inside were contained no less than 9 DVDs and two somewhat Spartan manuals – an 11-page “Getting Airborne in 5 Minutes” guide and an 18-page “Quick Start Guide” (more detailed PDF manuals are installed during the installation process). However, a quick look on my shelf nearby of my FSX programme package reminded me that the hard-copy manuals coming with FSX are also similarly brief. Gone are the days when bulky manuals were part of different flight simulator programme packages.

X-Plane 10 requires a minimum 2GHz dual core processor, 2GB RAM and Direct X 9-capable video card with 128Mb VRAM, but higher specs are recommended. It comes with the possibility to install the entire world in detail from 70 degrees south to 74 degrees north, but also allows for space flight in the Space Shuttle, if you want an extra-terrestrial experience. The type of world installed does not include many detailed airports or cities but does feature an auto-generated “Auto-scenery” that includes real roads, a global lighting system, detailed terrain and altitude data, and detailed coastlines. Installation of X-Plane 10 is a lengthy affair so you need to put

aside a couple of hour's peace and quiet to get on with it without interruption. This reflects the fact that this is most definitely a space-hungry programme, though precisely how much space it takes up depends on how much of the world you want to install. For a full install of the entire world, you can expect about 80 GB of space to be occupied. One important point before installation is that instead of using the first DVD to begin the installation process, you should download the latest programme installer from [www.x-plane.com](http://www.x-plane.com) and launch the installation from that instead [I initially overlooked this requirement and ended up with an error prompt warning me that an error had occurred during installation and that some files might not operate correctly]. Once you've launched the installer, you are presented with a map of the world which is overlaid by over 100 little tiles [except for open ocean areas] – none of these are selected by default but you can select all by the click of a button, or, like me, choose to economise on the amount of hard-disk space that will be taken by choosing which world scenery tiles you want to install in the first instance. I choose North America, Europe, and parts of the Middle East and North Africa which led to about 26 Gb space being taken up. If you later want to go back to this map and add or remove other scenery tiles, you just have to re-insert DVD 1 and then follow the prompts. During the installation process I was prompted to remove and insert all the DVDs except number 9 and eventually had installed my scenery choices – or so I thought. It was only later, when I went looking to explore the special feature high-detail airports of Nice LFMN, Paderborn EDLP and Faro LPFR, and found that they were not there, that the importance of DVD 9 became apparent. Thanks to the quick response from Aerosoft and the guys at X-Plane 10 to my plea for help, I was told that the detailed airports included with the package [other than KSEA] were right under my nose in DVD 9! I then installed them accordingly, and these excellent airport renditions became visible. Not only that, but Aerosoft have included airport scenery for



Take-off from Seattle KSEA



Beech Baron



Paderborn

22 airports in Europe in this version of XPlane-10 – many of these are German airports, but Dublin, Heathrow, Gatwick, Stansted and Glasgow are among the 22 included. These are not quite highly detailed, but are reasonable representations and better than the default alternative – no buildings!

A surprising element of the entire X-Plane installation is the default (and recommended) installation to a directory on the desktop, rather than e.g. your C drive. There is no X-Plane programme item under Windows-Start and to uninstall it, you just delete the desktop X-Plane 10 Directory.

Launching X-Plane 10 simply requires that you activate the .exe file either from inside the desktop directory or a desktop shortcut if you care to make one. DVD 1 must be in your drive to avoid X-Plane 10 going into demo mode [this is a fickle issue – several times I have launched X-Plane 10 with DVD 1 in the drive only to be alerted by the programme following initialisation that unless I put DVD 1 into the drive it will continue in demo mode – removing and re-inserting the DVD solved the issue but it was a little irritating]. In addition, have your joystick already attached to your PC before launch or it won't be recognised after the programme is running. On my system [remember it is a virtually clean new hard drive running Windows XP] it took about 5 minutes from X-Plane 10 execution until the programme was up and running. On first launch you are recommended to update your sim version to the latest release – this is achieved simply by clicking on the "About" menu item on the X-Plane 10 menu bar – if an update is available there will be an "update" option available for you to click on and the rest will follow automatically. I also learned from an "X-Plane 10 Installation Tips Manual" obtained from Jack Oliphant in customer support, that my virtual memory needed to be reset from 2GB to 3GB to avoid memory problems experienced during initial running of the programme and the procedure described there was straightforward and effective.

Before delving into the programme itself, a few words about the arrangement of directories and files following installation. As I mentioned, the default location for your X-Plane 10 installation is the desktop. Within the X-Plane 10 desktop folder are located an Aircraft directory [containing the 31 different aircraft

in 13 categories], an Airfoils Directory, A Custom Scenery directory [containing a KSEA demo area and a LOWI demo area, and the Aerosoft airports – this is also the location where you would add your own add-on scenery – more later], a Global Scenery directory, An Instructions directory [containing the detailed 151-page X-Plane 10 manual, an 84-page Plan Maker manual telling you how to do just that, and some other instructional files], an Output directory [containing for example FMS plans you have created within X-Plane 10, Logbook entries, Flight replays, stored preferences, and stored situations], a Resources Directory [containing for example default data and scenery, dlls, and sounds], and a Weapons Directory [reflecting the fact that this is not exclusively a civil simulator]. Loose within the X-Plane 10 directory are a number of .txt files such as the X-Plane installer log, which might be requested by customer support in the event that you have any running problems. All-in-all, it's a set-up and structure that is easier to make sense of than Microsoft Flight Simulator in its various incarnations, if you are interested in such things.

Upon execution of X-Plane10, the splash screen appears and the launch process takes a variable amount of time to complete, which seems to be proportional to the complexity of the scenery area in which you are located. On some occasions I found it to take up to 5 minutes. Launch takes place into Windowed-Mode. The first time you launch, your viewpoint spirals and loops downward from the clouds to the default start-up situation which is with a 747-400 in United Airlines livery with engines running and situated on the departing runway at Seattle KSEA. The rendition of this airport is very impressive with excellent graphics, very nice terminals, infrastructure and objects in 3D [slight bug here with a few ground vehicles slightly elevated], and great looking jet ways, and runways. The instinctive response of a flight-simmer when presented with this situation is of course to throttle up and tear away down the runway – until you realise that not only is your joystick not set up and calibrated, but for a MSFS user many of the key commands will be unfamiliar. Therefore your next task will be to access the Settings-Joystick option in the programme menu bar.

The menu bar in X-Plane10 is, by default, invisible until you move your mouse over the top of the screen. Once visible you will find 9 menu options, and the Settings menu I want is 4th from the right. I choose to configure and calibrate my Force Feedback 2 Joystick and Saitek pedals, which proved to be a simple and straightforward task under the Axis tab. I could also customise my joystick buttons under Basic and Advanced button tabs, and assign commands to chosen keys under the Keys tab. There is also an Equipment tab here which will allow you to configure other hardware such as Track IR and the Matrox TripleHead2Go, if you have them. So having done all this, I could now abandon restraint and, as threatened, and despite being in command of a 747-400, throttle up and tear off down the runway.





KC-10



Faro

What immediately struck me in this situation was how excellent the runway ahead looked, not only in terms of detail but also from the fact that it hugged the ground contour before me and therefore rendered it very real-looking – undulating runway at last! In addition, the default 747-400 cockpit is superior-looking to the equivalent FSX cockpit [however, this level of cockpit detail is certainly not replicated in every aircraft in XPlane-10, for example the B777 has a much more basic representation]. As I accelerated, a convincing sense of immersion built, helped by the very realistic cockpit sounds [externally, the engine sounds are not as impressive], and a slight swaying and bouncing motion of my aircraft reflecting momentum and gravitational effects. Any overdue turns of the nose wheel at this stage produced slightly alarming tire screeches [and smoke from burning rubber in exterior views!]. With not much runway remaining, I finally had enough speed to rotate and at last I was airborne with a convincing impression of flight which I feel is superior to the MSFS experience. On exterior view the wing flex looks very realistic [an excellent feature of this sim throughout, in respect of most of the aircraft included] and the undercarriage wheels rotate until out of sight in the wheel bays. Some of the technical descriptions I have read regarding how aircraft flight is modelled in XPlane-10 refer to the employment of actual physics rather than pre-set text file values. X-Plane has historically been known as “The Scientific Simulator”. Whatever its flight is based on, there is for me definitely a more realistic feel to flight in 3-D space as compared with FSX, with any careless or over-exuberant manoeuvring being quickly punished by difficulties maintaining stability and control.

A nice feature of XPlane-10 is that under the Aircraft menu option on the menu bar, you can choose an option “A.I. flies our aircraft” – by activating this, you are released from command responsibilities and can explore other aspects of the XPlane-10 system. One aspect you will want to get to grips with quickly is mastering the control of views. There are a wide variety of view options accessible under the View option on the menu bar with corresponding key-stroke commands adjacent and these take a little getting used to. Once that is

done however, the flexibility is simply great and I particularly liked the feature “3D cockpit mouse-look” which made moving around the cockpit very easy.

With a reasonable command of view options you can then take a better look at your aircraft inside and out. Exterior models vary in texture and feature detail with some such as the Cessna and the B747-400 looking very good, whilst a few others, such as the Cirrus, are less impressive. External moving parts are generally well detailed in appearance and function. Internally, as I mentioned before some panels include lots of detail (including 3-D cockpits and a HUD) and functionality (e.g. B747-400, Cessna, Beech Baron, Space Shuttle, Canadair fire-fighter), whilst others are somewhat more basic (e.g. B-52, X-10, Raptor). Choosing different aircraft to fly is achieved through the menu bar but is less refined a process than that provided in MSFS, especially FSX.

The world around you in X-Plane10 is extremely impressive. Clouds and Sky look very convincing, as does the photo-textured [as opposed to photo-realistic] terrain below with crisp and sharp detail – it frankly looks so good as to represent a competitive alternative to the likes of ORBX scenery rendition in FSX. There is also tremendous attention to terrain elevation with hills and mountains rendered in fine mesh and super-convincing detail and which doesn’t fade into oblivion in the distance. Other excellent features adding to the sense of environmental realism include roadways, bridges and elevated highways [apparently based on the real-world network as obtained from the so-called “Open Street Map Project”] populated with road traffic at a density to be determined by your choice [and in my estimation less demanding than FSX on resources], realistic-looking coastlines and waterways, great-looking 3D urban and city renditions of buildings and streets [which also look great at night], and a share of 3D AI aircraft, hot-air balloons and ships and aircraft carriers on the seas [in fantastic detail and on which you can land]. Representation of trees was one of the few less convincing scenery features. The other [only slightly] less convincing environmental element was sea texture. I also found that specific scenery ele-



Default Dublin



Cessna over Freeware Dublin



London Heathrow



ments provided in MSFS [e.g. the Golden Gate Bridge in San Francisco] are absent in XPlane-10 – having said that, a trip to the Grand Canyon was enough to convince me that default X-Plane 10 is superior to FSX in some other respects! All these scenery features are of course customisable in terms of density and texture and depending on where you are in the world, you will need to pay attention to the Rendering options menu because you will be hit with a mighty frame-rate hit in areas such as New York if you do not do so. One characteristic I like in particular is the fact that you can change from day to night without anything like the long wait you experience when doing the same in FSX.

Through the Rendering Options dialogue window, accessible from the Settings option of the menu bar, you can change many settings to optimise performance on your PC set-up. The manufacturer recommends running the sim at minimum 20 frames per second so it's of fundamental importance to have this rate visible on your screen as you might have in FSX – this is done through the "Data Input and Output" option under Settings and checking the frame-rate box to display this readout all the time. As you might anticipate, running the sim at max setting for texture resolution, world detail settings, number of ground objects, cloud detail, changing the number of other aircraft flying with you [especially important] etc., will lead to unacceptable frame rates. I found in general that I could run X-Plane 10 with at least mid-level settings and easily get frame rates way above 20 and a nice fluid performance in most areas but there's lots of room in this important window for extensive experimentation on your own system. Care is needed in major urban areas regarding levels of detail set – for example in the heaviest areas such as New York and the surrounding metropolitan area, extra care is needed to keep the sliders at more modest settings to maintain a fluid performance. In fact it's likely that very few PCs are capable of running X-Plane 10 at absolute max settings, even in less scenery dense areas.

Regarding other aircraft visible in my X-Plane10 environment, I usually found when locating myself at any sizeable airport,



LFMN Nice

as well as KSEA default, that there were inevitably a few heavies on the taxi out, including another B747-400 United, a B777 in British Airways colours and/or the 747 Shuttle Transporter – well at least the liveries are real as compared with FSX but beyond that, these are not very realistic scenarios of course. However, my understanding of X-Plane 10 AI aircraft is that these operate on a far more realistic level than FSX, in the sense that the AI aircraft in your locality behave as realistically as possible by following and communicating audibly with ATC, using separate threads of your CPU power, and they really do fly in full aeroplanes just like yours and with all their moving parts simulated. The max number that can be simulated with current PC computing power is 20, with me setting far fewer on my not-new machine. So the basic concept seems to be to focus on quality and realism of AI rather than quantity and with this direction being taken by the developers, it's unrealistic to expect the development of something like MY Traffic or Ultimate Traffic for X-Plane 10. Speaking of ATC, voice communications do employ human voices, but these seem to be limited in variety. Worth mentioning at this point is that Multiplayer is available with the possibility to interact with up to 19 other real flyers.

Representation of weather in X-Plane10 is very realistic and highly customisable through a detailed interface that includes not only a multitude of drop-downs and sliders, but also the ability to download real weather or "paint" your own weather patterns by mouse and map. When you set turbulence, wind-shear, and other elements of stormy weather, be prepared to fasten your seat belt very tightly, for the effects in flight are very effective. As you might imagine, care is needed to tread carefully with the level of detail that you apply in your weather environment in order not to affect frame-rates too adversely, but I generally found that I could enjoy a more sophisticated mix of conditions without the same adverse consequences I would expect to suffer in FSX – and the cloud sets and colours look really excellent.

It's also critical for flight-simmers to know where they are in the virtual world, or choose a desired alternative location, and X-Plane10 delivers an excellent means to choose these options through the Location menu item on the menu bar. Firstly





you can “Select Global Airport” and having entered e.g. EIDW, you will see that you have the possibility to choose a multitude of ramp locations, or any of the runways either at the take-off point, or on finals 3 miles or 10 miles out. Second, you can select “Local Map”, which opens the possibility to display a variety of different map types, including Low-en route, High-en route, and sectional and textured [the latter looks close to Google-Earth in appearance]. One issue I could not resolve at time of writing was to display X-Plane 10 on 2 monitors at the same time and thence try to e.g. see a moving map at the same time as flying – in the Rendering Options window there is an option to draw the cockpit on a second monitor but each time I choose this option I suffered a crash to desktop. Another way of moving your location, and indeed your entire situation, is to access the Aircraft Situations menu and choose anything from various types of take-offs to something much more challenging, such as an air-drop in an X-15 rocket-powered aircraft from a B52, a piggyback shuttle on a B747 Transporter, an aircraft carrier approach, oil rig landing, refuel from a KC10, or even a Space Shuttle re-entry.

One characteristic that might be off-putting for new users is the fact that airports in X-Plane 10 are mostly just represented by runways, aprons and the field itself – there are no airport-specific buildings whatsoever at nearly all airports. However, having browsed the large variety of add-on freeware packages [to say nothing of the range of payware airport add-ons] available at [www.x-plane.org](http://www.x-plane.org), I felt compelled to add any freeware scenery I could find for Ireland – and promptly found packages for EICK and EIDW. Installation of these scenery packages is

simplicity itself – all that has to be done is to place the individual folders as they are [“XPIH Cork EICK Ireland r100” and “XPIH Dublin Ireland r260”] in the Custom Scenery folder within the X-Plane 10 directory and that’s it! – no tweaking of scenery config files or the likes required. Flying to these two home airports was then a delight as they are very good representations of the real thing and quite close in detail to the payware add-ons available for FSX. So you need not despair at the lack of airport infrastructure included with X-Plane 10, there are lots of free add-ons available for many parts of the virtual world. I did not have time to experiment with adding any of the freeware or payware aircraft available, but again, there is a huge variety from which to choose.

I did not really think that when I embarked upon this review that I would become hooked on it. I have had a very comfortable working relationship with FSX, including all the way back to FS5, and have felt that it has delivered most of what is available in the world of simulated home flight. However, X-Plane 10, is looks and feels to me hugely impressive, particularly with respect to a realistic impression of flying and the representation of almost the entire world and the sky environment. Lack of airport detail, absence of realistic-looking AI, and some quirkiness regarding installation, are some aspects of this programme that might be off-putting to some. However, the level of generic detail and flight realism that you get with this sim, without having to buy and load expensive add-ons, establishes its high pedigree and makes it one definitely worth considering by all serious flight simmers. ✈

