

# MICROSOFT FLIGHT SIMULATOR 2002

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'As real as it gets' is Microsoft's simulator tagline and with this latest offering, they have surpassed themselves, setting a new standard for flight simulation on home computers and further blurring the edges between serious pilot training tools and what is usually considered entertainment.

Microsoft's *Flight Simulator 2002 (FS2002)* is the latest offering in a legacy of progressively more and more realistic sims that began with simple wire-frame graphics. The last release, *Flight Simulator 2000*, brought a higher standard of graphics but many people complained that it demanded high processor power to get acceptable frame rates for smooth flight. *FS2002*, in contrast, has remedied this problem through clever coding that keeps the graphics smooth and silky while incredibly adding yet more detail. Like *FS2000* the game comes in two flavours - the Professional edition with extra aircraft, detail and features and a cheaper Standard edition.

Again like its predecessors, *FS98* and *FS2000*, the simulation is built on an open architecture allowing committed fans (both pilots and non-pilots) to design new aircraft, scenery and flight plans. The simulation world was therefore keenly awaiting the new release when the media fallout from 11 September (stoked by various tabloid journalists) put the idea of simulations as tools for terror under the spotlight. Microsoft thus delayed the launch slightly both as a mark of respect and also to remove the fallen WTC towers from the game's New York skyline.

## A pilot's paradise

The level of detail then is astounding, taking the *Flight Simulator* brand onto the next generation level and redefining it as a VFR sim, where if you want, you can navigate by landmarks, roads, rivers around a fully realised world that contains around 22,000 airports. True, there are areas in which more attention has been lavished, (major cities and mountains are especially good) but thanks to another breakthrough in the game, AutoGen scenery, even when you are flying outside the most detailed areas, the landscape and terrain (rendered from satellite imagery) is automatically 'populated' with houses, buildings and trees, adding tremendously to the sense of being there. Suddenly cities now look like urban sprawls, while trees and vegetation make low flying in the outback a pilot's paradise. Not only that, but the way in which the satellite ground imagery is 'draped' over the 3D mesh terrain model provides rolling hills, soaring peaks and realistic valleys to fly over.

Not only is the terrain improved from previous editions but also the clouds and sky have been given a makeover

too, with wispy clouds, threatening thunderstorms and tourist brochure sunsets.

All this level of detail can be adjusted in the options screen and those flying enthusiasts who prefer looking at instruments are also catered for, with options to use IFR panels on a couple of aircraft, a GPS map display and the option to use jet routes to plan your flight. Weather, time of day and season is also fully customisable with even an option to download real-world weather from the Internet.



### Chocks away

If that isn't enough there is also a selection of highly detailed and realistic aircraft to fly, with realistic instrument panels and virtual cockpits to 'look' around. Even in the virtual mode, the instruments still work, giving a totally immersive feel. The 16 aircraft modelled for the Professional edition range from the Boeing 747-400, to the Mooney Bravo, to the Bell JetRanger III and even a Sopwith Camel. New for *FS2002* is the addition of the Cessna 208 Caravan on amphibious floats, where one of the preset adventures sees you fly as an Alaskan air taxi operator into scenic small lakes and creeks. In terms of flight models all the aircraft certainly 'feel' correct - the Extra 300S is light and twitchy, while taxiing a Boeing 777 demands you anticipate things well in advance. Flying a Bell JetRanger high into the stunning Himalayas, while probably not being 100% accurate, unquestionably provides a glimpse into high altitude ops as you claw for altitude in the (simulated) thin air.

### Crowded skies

*FS2002* also introduces a new dimension in the series with interactive air traffic control (ATC). Whereas previous editions made a basic attempt to simulate this, it really only amounted to ask for permission to take-off and after that you were free to go wherever you pleased. But with *FS2002* you have an interactive system, that while simplified, issues verbal and onscreen communications to confirm instructions, handovers to other controllers, and even taxiing instructions once on the ground. You can also 'hear' and see other traffic *en-route* and around airports. Select maximum 'dynamic scenery' and Heathrow Airport to start from and you may encounter a 20-minute wait while controllers find you a slot. A case of too much realism?

### Training with FS2002

Other features include a whole virtual pilot's training package in which you can learn to 'virtually' fly in a series of short lessons from private pilot, to a commercial rating. For those more serious (and even the US Navy uses Flight Simulator as an initial training aid), there is, in the Professional edition, a flight instructor's station, where student pilot's stick movements and course can be 'watched' by an instructor via the Internet from anywhere in the world. The game can also be played in multiplayer mode with other pilots on the Internet or on a local network.

### The right stuff

In conclusion, the game is simply full of little touches that add immeasurably to the sense of 'being there'. Things like the cough and smoke that backfires when you start a piston engine, driving rain on the cockpit window, contrails from the big jets at high altitude and even surf on beaches show the amount of care that has gone into this. Thanks to the worldwide fan base and third party developers, the *FS2002* world will become even more detailed over time.

Is it perfect? Well not quite. Despite satellite data, in my version Microsoft had plonked the Millennium Dome opposite the UK Houses of Parliament - wishful thinking perhaps? More seriously, despite being so deep and complex, the game lacks a comprehensive paper manual, with only a short guide with the rest on the CD in PDF format. While this is acceptable for a lower priced game, for £69.99 it would have been nice to have something more solid. Finally, many civil aircraft (as well as the majority of military) now use HUDs - but maybe that's something for *FS2004*.

But these are minor gripes - if you are at all interested in flying and dream of having the right stuff (or maybe you have it already and want to hang on to it) *FS2002* sets new standards for flight simulation.

Tim Robinson