

Installation uses the Flight1 wrapper, which has never given me trouble. Once you complete the purchase, you'll be given the option of which version to install: FS2004, FSX, or both. The documentation is only ten pages long -- which is all anyone will need. Most of the options are illustrated with screenshots and set-up is minimal. Like its EZ-predecessor, FSDiscover! really is easy to set up and use.

Using FSDiscover! In Flight

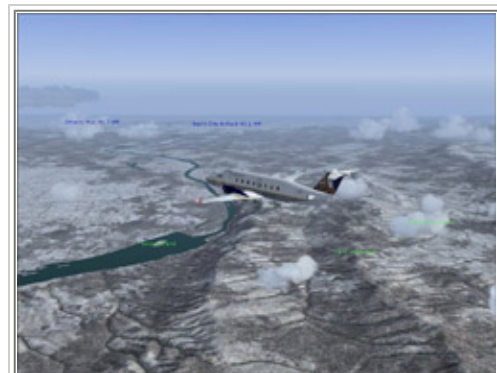


Options and settings

To use FSDiscover!, you start a flight as usual. Apart from a new item on the pull-down menu, you won't notice anything different until you activate one of the label categories. To see the labels, you select an option from the menu bar (under Flight1). Currently, there are four categories of names that you can show: airports, geographic names, your flight plan (if you have one), and "points of interest." You can add more "points of interest," but to start with there are the real-world buildings and special terrain features that Microsoft has included in the default scenery. Places such as Mt. Rushmore, the Eiffel Tower, the Empire State Building, the Golden Gate Bridge, Niagara Falls, and the pyramids. Apparently there are 600 of these in FS2004, 1,900 in FSX, and FSDiscover! knows where all of them are.

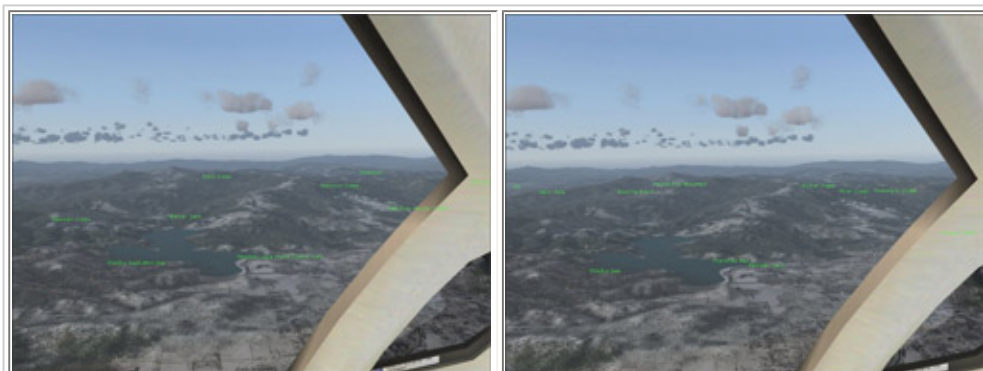
Each category is assigned a color (which you can change) and can be turned on or off separately. With the default settings,

airport names are blue, point of interest names are red, and geographic names are a bright yellowish green. The size of the text can be adjusted, as well, and if you want FSDiscover! to display the distance to an object as well as its name, there's an option to do that too. Airport names can be displayed with or without their ICAO codes. Finally, each label category is assigned to a hotkey, so you can turn it on or off without going through the menu.



Place names in green, airports in blue

The system works very well: so well, in fact, that there is a real danger of information overload. In a densely populated area, such as San Francisco, there are so many place names that showing all of them at one time would result in a dogpile of illegible text, useless and unsightly. FSDiscover! solves this problem by showing only a fraction of the available place names at one time, pausing for a few seconds (you can set how many), and then displaying a new set of names, until all of the names have been shown, at which point the cycle starts over. This is called "clutter reduction" and it's quite effective.

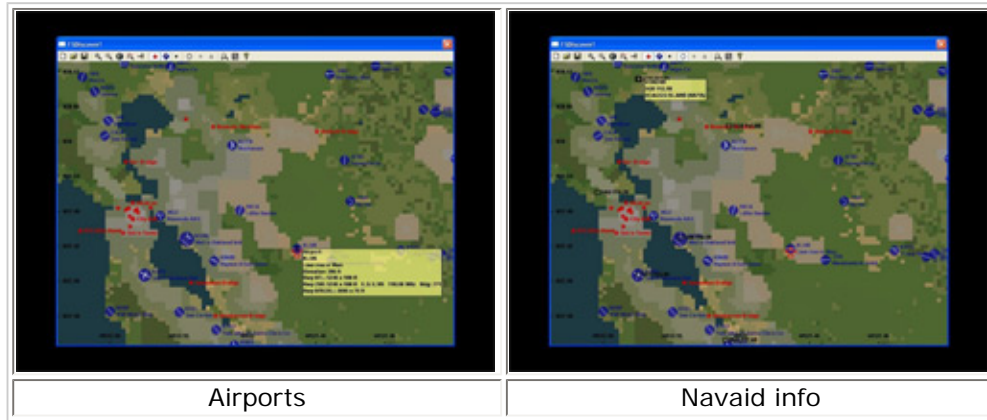


Clutter reduction



Cycling through all the names

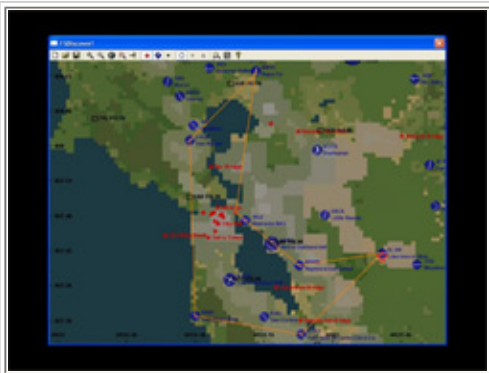
I do wish you could prioritize the types of information that are displayed, so that mountain labels (for example) would remain on screen while more transient structures (such as buildings) cycled through. This would also be helpful in the FSDDiscover! map view, where all of the labels are the same size, regardless of what they represent, whether it be a national forest, a golf course, or a city park. This makes finding places and things harder than one would like. Again, this is the price you pay for having such a rich database of place names. The good news is, everything is here and if you can't spot it on the map there is a search function.



Airports

Navaid info

The terrain, as represented on the map, is blockier than the default map that you're used to; the larger features of land and water are visible, but the chief use of this map is to create a flight plan, with places for waypoints. Compare this with the default map where all of your waypoints are navaids or airports. For IFR, those are all you need. But with FSDDiscover!, you can chart a course from town to town, lake to lake, monument to monument. The standard navaids are here, too -- intersections, VORs, and NDBs -- and if you pause your mouse over one of them it will display the navaid's radio frequency (or for an airport, its frequencies and elevation).

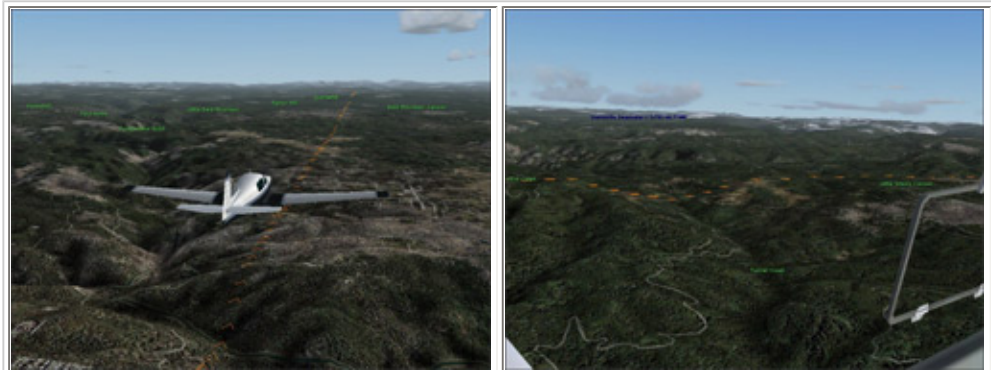


Creating a flightplan

Creating a flight plan is simple. You set a starting point, and then add waypoints to it. To create intermediate waypoints, you drag the flight path to the new waypoints. This is similar to the default flight planner, except that there are place names in addition to navaids, your plan terminates when you get tired of adding to it, and you don't worry about choosing an altitude.

FSDDiscover! flight plans can be saved, but only for use by FSDDiscover!; as of this writing, FSDDiscover! can't import a flight plan in the standard format, and it can't export them in that format either. That's too bad, it would be nice if you could create a VFR flight plan using FSDDiscover! and then load that flight plan into the GPS. In one sense, FSDDiscover! replaces the GPS, by putting the map onto the terrain. But the ability to import and export standard-format flight plans would make the program more flexible, and I'm told it's high on a list of future improvements.

Once your flight plan is made -- and it's very easy to go back and change your plan, even in mid-flight -- you go back to the cockpit and fly it. The second-easiest way is to display the flight plan on the terrain and follow the yellow arrows. Or, if you are really lazy, FSDDiscover! comes with one-key autopilot that will follow the arrows for you. The only thing you still need to worry about is altitude: the FSDDiscover! autopilot is strictly LNAV, VNAV is up to you.

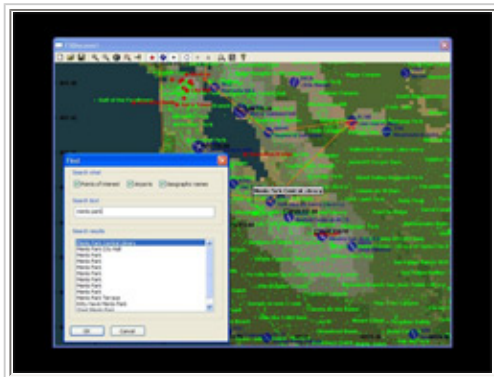


Flight path is displayed directly on the terrain

Extending The Database

According to the product description, FSDDiscover! has a database of "over 3.6 million geographic names from all over the world." I haven't tested that, but there are a lot of names here that I didn't know, even for places I have lived in. In version 1.02, which I tested, the database includes basins, beaches, bridges, canals, capes, channels, cliffs, craters, crossings, dams, falls, forests, geysers, glaciers, harbors, islands, lakes, lava flows, mountains, parks, plains, populated places, rapids, reservoirs, ridges, streams, swamps, and valleys. You have the option to show or hide as many or as few of these categories as you wish.

For the United States, including Alaska and Hawaii, there is also a database of buildings. I would have liked to have seen these for the rest of the world as well, but the developer has decided, for the time being, not to include them because the vast majority of buildings, whether in the U.S. or elsewhere, are not represented in the sim. I like knowing where the buildings would be and I could imagine how, for scenery developers, this would be useful as well.



The search table

Apart from buildings for the rest of the world, there were only two missing categories that I noticed right away. One was rivers and roads. These are hard to label because of their length. How many times would you have to label the Amazon river or one of the interstate highways in the U.S. so that a label would be visible all along its course? The other omission (and this would be easier to fix) is golf courses. These aren't part of the default scenery, but if you fly with Ultimate Terrain you do see them and they do sometimes appear on official charts as VFR landmarks. On the plus side, when Ultimate Terrain shows a park, it is labeled by FSDDiscover!.

Also, FSDDiscover! has an interface that lets you add landmarks while you are flying. This involves pointing at the object (by slewing the aircraft) and typing the landmark's name. You can also add landmarks by editing the database directly, and I would not be surprised if we start seeing users distribute their own databases, even large ones such as "buildings for the rest of the world." The file format is very simple -- name, latitude, and longitude -- and there is now a website, geonames.org, which provides free downloads of geographical placenames with locations. Even if that doesn't happen, it's to be hoped that scenery designers will include FSDDiscover! files as part of their packages, so that the objects in their scenery will be labeled. The procedure for doing this is explained in the manual and it's quite simple. It's just a matter of copying over the file with your custom landmarks in it and placing it in the scenery folder with your .bgl files. FSDDiscover! scans all of the scenery folders when it first starts up, and if there is a new landmark file, it will find it automatically.

Performance

Test System

Core2Duo E6600 @ 2.4 GHz
2 gigabytes RAM
Nvidia 7600GS (512 Mb)
TrackIR 3 with Vector
CH pedals, yoke
Saitek ST290 joystick
Ground Environment Pro II
Flight Environment
Ultimate Terrain

Flying Time:
15 hours

FSDDiscover!'s impact on performance is negligible. I tested it on three machines: a three-year old laptop, a three-year old desktop, and my new, blazingly fast, Core2Duo. For all of these systems, switching the label display on and off seemed to have no effect on either framerates or smoothness. I did notice a delay when the program first loaded during a flight. On the laptop, it took could take up to 24 seconds to load all of the labels into memory; on my Core2Duo, it took all of 2 seconds. Keep in mind that this was all of the labels, for the whole world, except the United States.

On systems with low RAM, there is a potential for stuttering. This is because one of the label categories that you can choose to display, "populated places for the world but not including the U.S.," is very large, almost 60 megabytes. If you fly outside of the U.S., you are going to want to use this file because that is where all of the towns and cities are stored. Ideally, this file would be broken up into smaller units -- continents, say -- so that if you were flying in Europe you wouldn't need to load all of the town names for Africa, Australia, and Asia, as well. As currently distributed, that huge file is displacing RAM that that could be used to make your scenery load more smoothly. That's in theory; in practice, I didn't notice any additional stuttering, even on my laptop (which has only 512 Mb of RAM).

I'm a little concerned about what will happen when I move to Vista. FSDDiscover! is compatible, right out of the box, with both FS2004 and FSX. Right now, FSX needs 2 gigabytes of RAM to run smoothly. I am guessing, though, that Vista is going to take a substantial bite of that, and leave FSX with less room to run in. This means, in turn, that it will be more critical for programs that share RAM with FSX to be memory-efficient.

My Wishlist

As a successor to EZ-Landmark, FSDDiscover! is already a mature product. Still, there are some things that I wish it would do differently:

- Display VOR, NDB, and intersection labels on the terrain. Currently these are only visible on the map.
- Import and export flightplans in the default Flight Simulator format. This would enable you to visualize your existing flightplans without rebuilding them using the FSDDiscover! map.
- Have an option to automatically turn off all labels when you are on the ground. This isn't a big deal, because you can turn

them off manually, but when you're at an airport, the labels are only a distraction.

- Prioritize the display cycle so that bigger, more permanent features such as mountains and lakes are always displayed. This would be useful, both in the cockpit and on the map.

- Make it easier to switch between the two sets of databases. Currently, if you are flying in Europe and then want to fly in the U.S., you need to select each of the label categories that you want to use for the U.S. and deselect them for the rest of the world, one by one. It would be nice if you could set up which categories you wanted to use in general, and then press a button that would select all of those for either the U.S. or the rest of the world. This won't make a difference for customers who only fly in one place, but if you like to explore different parts of the world, the current interface is slightly more tedious than it needs to be.

- Save all settings from one session to the next. Whatever you set in the Options screen is saved, but not which labels you have displayed in the cockpit. Also, the "Find" feature always defaults to searching for airport names only; since I'm usually searching for place names, I wish it would remember my last setting. This is a small gripe.

- Make it so that labels don't show through mountains. Currently, if you are flying on the western face of Mont Blanc, it is possible to see the labels from the eastern side through the mountain. This is only slightly distracting and I am guessing that it would be difficult, if not impossible, to fix without writing a new, more complex, and more costly program. A similar problem is that labels show through the floor of the virtual cockpit. This is described as unavoidable in the documentation and it does sound annoying; in practice, though, it did not bother me, even though I fly exclusively from the VC.

Conclusion

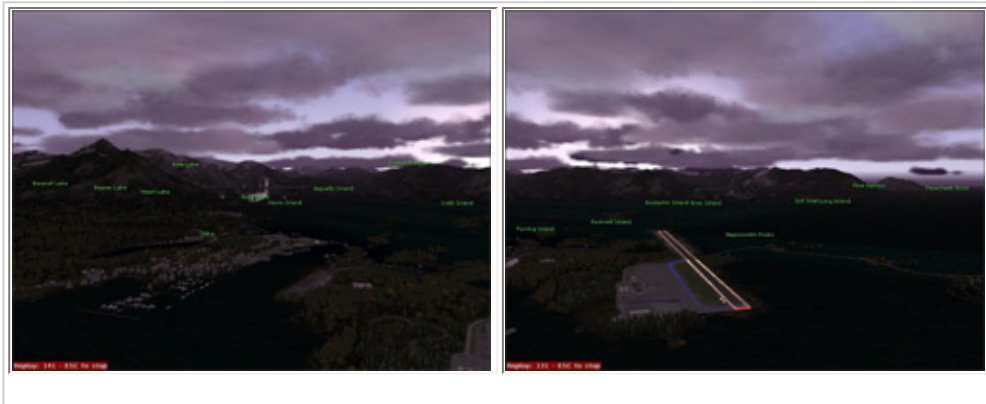
My first experience with computer flight simulation dates back to the early 1980s, when no one outside of the military had even heard of GPS. When I returned to simming a few years ago, I went through a period during which I regarded all GPS and moving map displays as "cheating." Real men, as far as I was concerned, used VORs and E6B flight computers!

You will have guessed from this that I am not a real-life pilot, because real pilots will use whatever makes flying safer. Eventually I woke up to this; also, it occurred to me that there must have been a phase in aviation history when the technology that I grew up with (in the sim) was new too: when "real men" used NDBs exclusively, and before that, LF beams transmitting Morse code. (If you're curious about how that worked, read Charles Woods' excellent navigation tutorial on the web, or search for "Radio Range System" in the AVSIM file library.) To those old-timers, I was the sissy for using VOR.

I eventually got over my prejudice against moving maps. It's still not my preferred method of navigation, which is pilotage: looking out the window and picking out landmarks. They don't have to be famous monuments: a railroad will do, or a river, or an interstate highway. The important thing is that they have a recognizable shape and, with Ultimate Terrain at least, most of these objects do.

Still, there have been many times in the last year when I wished I knew more about what I was looking at. A friend of mine put it this way: "Having a name for something helps you to see it." That's true. There's a lot in the sim we don't see, because we don't conceptualize it as a distinct object. Mountain ridges are an example. Unless I am in danger of running into one, my tendency is to think of the ridge as just one more part of the mountain -- and therefore not to think it at all.

This changed last month, when I started flying with FSDDiscover!. I began my first flight in what, since reviewing Tongass Fjords a few months ago, has become one of my favorite locales in the sim, Sitka. I already liked this area and I'd flown in and out of it enough times that I thought I knew it. But with the labels displayed, I began noticing new things -- islands, ridges, beaches, and in Sitka, even a park. Nothing in the scenery had changed, but because the objects had names now, I was noticing their existence.



At Sitka: rediscovering old friends

The next scenery I tried was VFR Berlin 2006, which I reviewed here last spring. This is another product which I enjoy very much, and have come back to many times. If you read my review, you may recall my frustration at not having a good enough map to identify all of the monuments and buildings. Now, I thought to myself, I have the perfect tool, FSDiscover!, and it will be easier to use than a real map because the labels will be painted right on the objects they describe. I was slightly let down, because FSDiscover! has building data for the U.S. only. Still, all of the monuments that are part of the default sim were now labeled, and in Berlin there are quite a number. Of course, Berlin also has plenty of parks and lakes as well, and because I had now names for them, I "saw" more of them.

There were only two times when I turned off FSDiscover! altogether. One was flying the default Learjet at FL330. The Lear, like most jets, does not have great windows for looking at ground scenery, and since the names show through the floor of the virtual cockpit, having them visible was more distracting than informative. The other time I turned it off was flying east from Portland, Oregon in a Beechcraft 1900D at FL250. Initially, I thought it was just a difference between IFR and VFR. But later I flew the same flightplan in different weather, and kept FSDiscover! on the whole way. What was the difference? Clouds: the first time, I was flying over thick clouds, so I couldn't see the towns, lakes, and dams that were being labeled. The second flight was in better weather, and the labels were connected with something I could see. I have probably flown that route at last a dozen times in the last year, but this was the first time that I "saw" many of the dams, streams, and lakes.

Like all Flight1 products, FSDiscover! comes with a 30-day money-back guarantee. For this product, there is also a free demo, which is limited to the area between Manhattan and Niagara Falls. The download is small, only 8 Mb, so it's easy to find out before purchasing if this is something you'll like. I think a lot of people will, and I hope that scenery designers will take advantage of it.

There is a lot of great scenery out there, both freeware and payware, but we don't always see everything that's there. FSDiscover! can help with that. Priced at \$30 (USD), this is a unique product whose only competition comes from earlier versions of itself. Easy to use and also to expand, this is a tool not just for exploring new places, but for discovering new things about the places we already know.

Printing

If you wish to print this review or read it offline at your leisure, right click on the link below, and select "save as"

[**FSC 7.7**](#)

[\(adobe acrobat required\)](#)

[Comments?](#)

Standard Disclaimer

The review above is a subjective assessment of the product by the author. There is no connection between the producer and the reviewer, and we feel this review is unbiased and truly reflects the performance of the product in the simming environment. This disclaimer is posted here in order to provide you with background information on the reviewer and any connections that may exist between him/her and the contributing party.

[**Tell A Friend About this Review!**](#)

© 2007 - AVSIM Online
All Rights Reserved