

*Add-on for Microsoft*  
**Flight Simulator X**



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# VFR Germany

**South**



**Manual**

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Many thanks go to all the nice people who send us photos from their home villages and cities in Germany for the most realistic German Autogen scenery ever! And of course our wives and families who support us in the even most difficult times. Furthermore we would like to thank Innova Software for their great FSX KML tool which enabled us to place some flatten commands throughout the scenery area as well as excluding some traffic. With special thanks to the team of people that supported us in the beta. They are cool folks.

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# **VFR Germany 3**

## **South**

### **Manual**

Add-on for

**Microsoft Flight Simulator X**

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# Introduction

“The ultimate VFR Add-on for Germany in 4 parts! High detail areal images, merged with 3D objects create an experience that has only been matched by real flying.”



What sounds like a over the top add text is now real. We admit the first section took longer then expected and we had some serious problems to solve. But now the production line is moving and our new VFR scenery range are being released. You will be amazed.

For FS2004 Aerosoft had split the VFR range into two products, “Scenery Germany” and “Real Germany” but for FSX we have decided to merge those two and come up with a new system that will bring you the whole of Germany in VFR quality in the shortest possible time. Using the combined development

knowledge of the developers of the previous scenery series and adding the superb knowledge of the FS internal working of Burkhard Renk (MyTraffic) we were able to use the high end data delivered by Geocontent. And for a large part in automated format and that is the key to the high standard of this product. It would have been impossible to place millions of objects manually!

A product like this would have cost many times more just a few years ago. No other (extended) part of the world is covered in high res areal images combined with realistic Autogen, VFR-objects and important VFR objects. Germany has in step reached a level of detail no other country in FSX can match.



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As discussed the production of this scenery was highly innovative. Where in the past most objects were placed manually, this was now done using data files that contained information about every house in Germany. Of course an automated system like that causes new problems and in many areas manual adaptations were done. It also clearly works better for small villages. Large cities do not look as impressive in this method and can only be manually done as much of the data files are not available. As this takes several years and buckets of money that is a limitation we have to accept at this moment.

We wish hours of fun exploring this region. Take out your atlas (or the VFR map included) and just set off to explore the landscape.

**Sascha Normann, January 2009**

## System requirements

- Flight Simulator X with Service Pack 2  
(at [www.fsinsider.com](http://www.fsinsider.com) or to be found on DVD 4)
- DVD-ROM drive
- Graphics card with 256 MB memory (512 MB recommended)
- CPU: 3 GHz (duo core highly recommended)
- 1 GB RAM (2 GB recommended)
- 15 GB free disk space!
- Soundcard
- Windows XP, Windows Vista (fully updated)
- Adobe Acrobat® Reader 6 minimal to read and print the manual <sup>(1)</sup>

<sup>(1)</sup> Available for free, download at:

**<http://www.adobe.com/prodindex/acrobat/readstep.html>**

# Installation

**Note:** *To install you need to be logged on as Administrator. Also make sure you have at least 15 GB free on the same drive as where FSX is installed.*

Insert DVD 1 and on most systems this will start the setup automatically. If it does not, navigate to your DVD and double click "Setup.exe". After selecting the language and the license agreement (you will have to accept those to continue) you will be asked to enter the serial number. You will find this number on the DVD box. The code needs to be entered EXACTLY as it is given.

When this is done your FSX installation will be searched for, if it cannot be found you can search for it, and the installer will check if German Landmarks is installed (see for more details about this near the end of this manual). Follow the on screen instructions to complete the installation.

## Removing

To remove "VFR Germany 3 - South" use the 'programs' option in the Control Panel. You will find the name "Aerosoft VFR Germany 3" in the list of installed applications. Removing the product this way will remove the files and also remove the scenery from the scenery library of FSX. Never remove the scenery manually by just deleting the files, this WILL lead to problems.



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# Support

Support for this product is offered by Aerosoft. We prefer to have a support forum for the simple reason that it is fast and efficient because customers help customers when we are sleeping. Aerosoft forums:

**<http://forum.aerosoft-shop.com>**

We feel strongly about support. Buying one of our products gives you the right to waste our time with questions you feel might be silly. They are not.

Updates, when available, will always be found on the Aerosoft-Website (**[www.aerosoft.com](http://www.aerosoft.com)**) under FAQ's / Updates (you will need to register this product before being able to access the updates).

**Note:** *Please see the FAQ section for more information. This new way of scenery delivery has some minor drawbacks that need to be discussed and explained.*

# **Structure of Aerosoft scenery products covering Germany**

Aerosoft has decided to design a new complete new way of covering Germany in FSX. Four different product lines with each a different area of coverage.

## **VFR Germany**

VFR base scenery of Germany, a perfect base for all German scenery.

## **Mega Airports**

Major airports that function as hubs for the worlds airlines (in Germany for example Frankfurt).

## **German Airports**

Major airports in Germany.



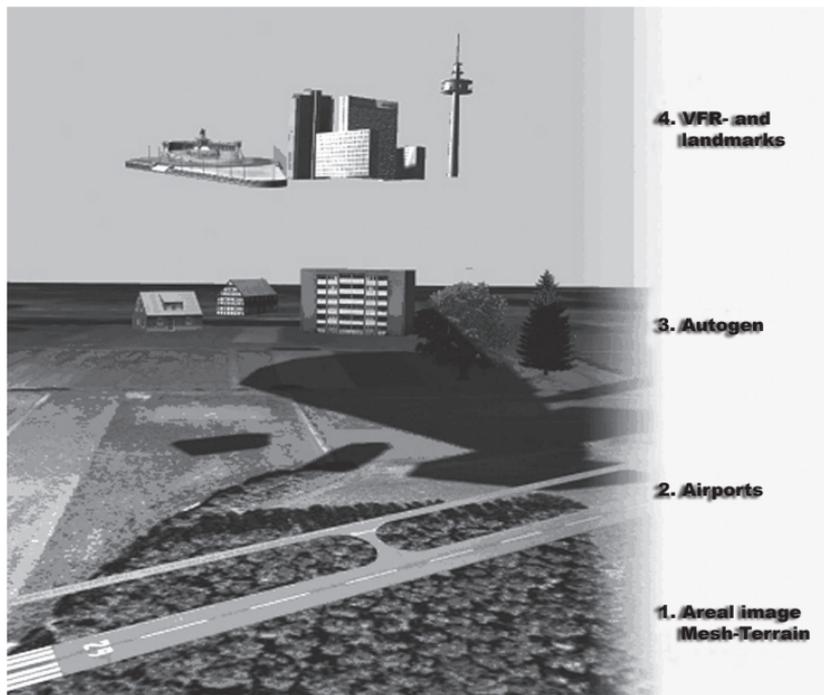
## German Airfields

Regional Packs with airports and airfields (for example Norderney or Tempelhof). The first three packs will be "Island Hopping", "Lower Saxony" and "Northern Bavaria". More information can be found on the Aerosoft websites and forums.

**All these products will be fully compatible but will be fully capable of stand alone use!**



## The four layers of VFR Germany



At this location we like to explain to you what are the different parts that make up "VFR Germany". The four components shown in the image above are the main elements and are explained below in some more detail.

### 1. Areal images

The areal images are the base and the most important element in the scenery. The images used are "orthophoto's" done by Geocontent in the last few years (so they are very recent). These are NOT satellite images as they do not have the correct colors and not the correct pixel density. The images are "geo referenced" meaning that they are corrected and scaled so each house is at the right location. So the



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lat/lon shown by your car GPS system will match the lat/lon shown in FSX. Don't take this for granted, for FS this is rarely done, but we felt that it is vital for a base product like this one is. If you like to know more about ortho photographs, check out Wikipedia:

<http://de.wikipedia.org/wiki/Orthofoto>

## 2. Airports

Of course all airports, ultra light fields, glider fields, and most heliports that MS Flight Simulator X did not include have been added and where needed they are corrected so they are located perfectly. But this product does NOT contain detailed airports, just the runways and taxiways/aprons. See the structure of the scenery products discussed above.



### 3. Autogen

The Autogen is what this product is really about. Never before have millions of buildings been placed correctly and never before have forest been done in this detail.

Autogen is standard FSX consists of a series of buildings and structures (often far too largely scaled and very American in style) that are placed semi randomly on the scenery. There is some control as sections have a known population density for example, but it is an approximation of reality, not a simulation.

In "VFR Germany" the Autogen is very different. Using databases that hold detailed information about 8 million (!) buildings and a special tool the buildings have been positioned and where needed manually corrected. The style and direction of the buildings has been determined by the distance to the next house. The Autogen objects themselves have been created using images that customers send us of their own house. This assures us that the objects have a distinct German character and that there is a good number of different objects. This innovative system is not perfect, although the locations are highly accurate, the type and layout could be incorrect and this could cause buildings to be on roads etc. In larger cities the number of buildings is reduced as the framerate need to be acceptable.

Forests have been positioned with another tool that scans the images and positions areas of trees as long as they are 12x12 meter.

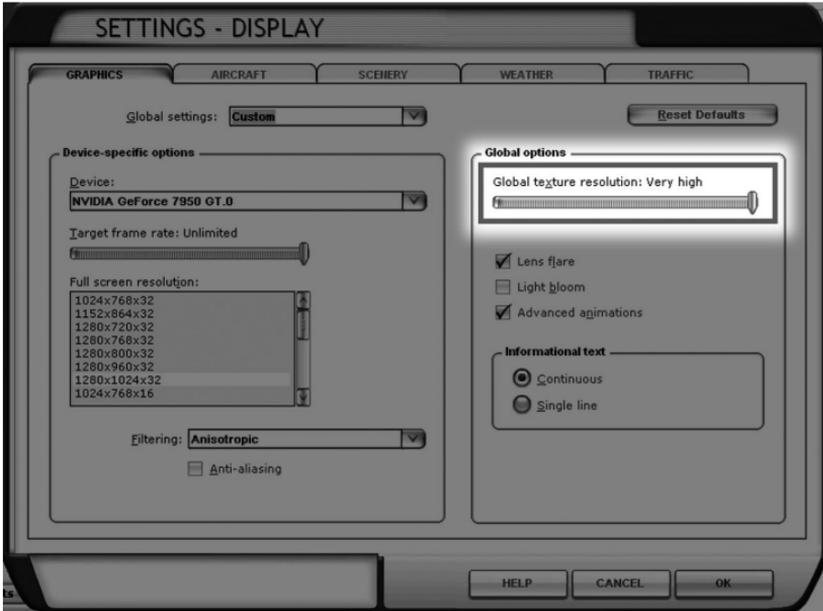
### 4. VFR- and landmarks

As the last layer we added most objects shown on VFR maps (high tension power lines, transmission towers, power plants etc.). The landmarks are objects and locations that are done in detail as they are important to recognize the area. They could be bridges, major buildings or churches. There are numerous objects added this way, all the time keeping in mind that this is a ground layer product, intended to be overlaid with other scenery when required by the user so framerate often determine how many objects are placed.

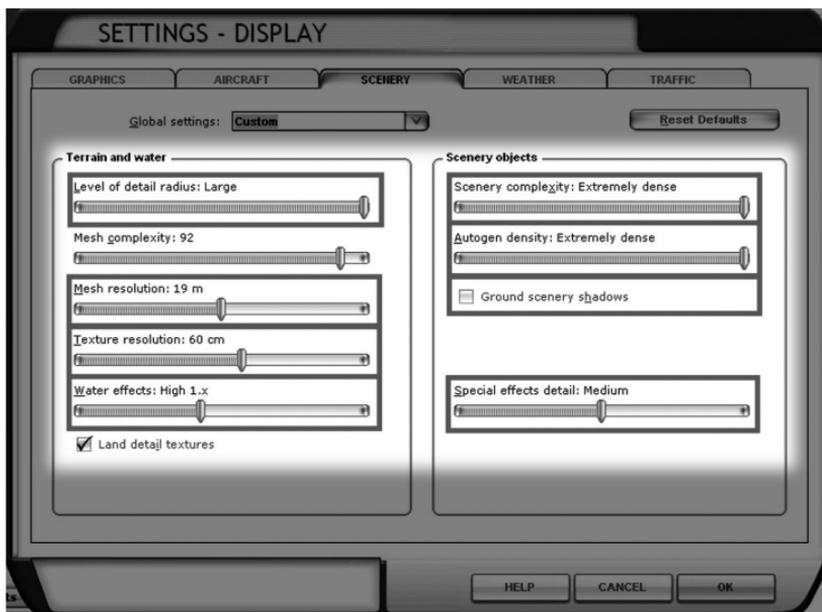


# Proposed settings

As you will have noticed by the many gigabytes of this product, there are certain settings that are important for a fluent. The settings marked in red on the images below are the most important.



To see all houses, aircraft and other 3D objects in good detail the Global texture resolution is very important, it needs to be at the highest setting. Take our advice and always leave it at that setting.



**Detail radius:** Important for the resolution of the photo scenery as seen in the distance.

**Mesh resolution:** Determines how detailed the undulation of the terrain is. Even at higher settings this does not affect framerates a lot.

**Texture resolution:** Determines the resolution the ground textures are shown at. VFR Germany uses 1 meter textures so a setting of 60 cm is okay.

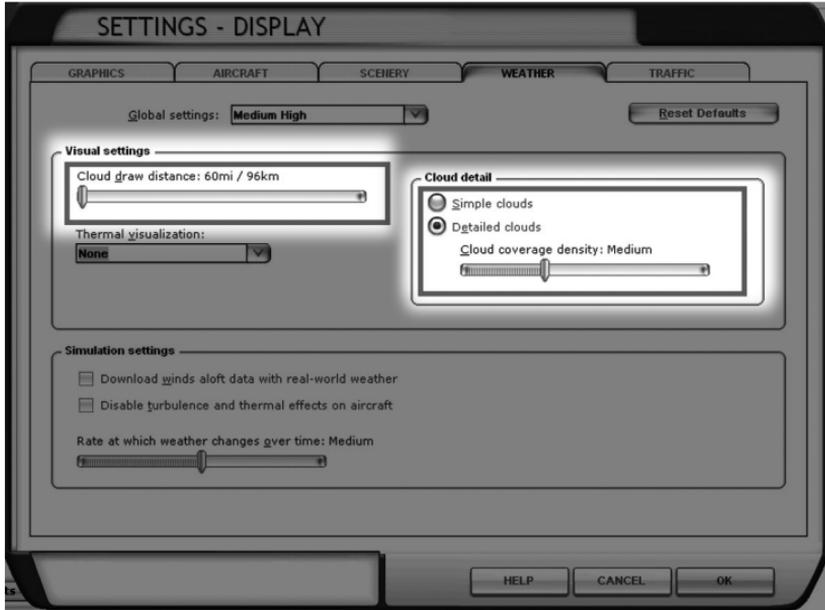
**Water effects:** The High 1x setting is advised as higher settings reflect scenery in the water and that is highly CPU demanding.

**Scenery complexity:** Although all the objects of VFR Germany are shown at "Normal" settings, we advise the highest setting as this also shows the airport objects and does affect framerates too much.

**Autogen Density:** This is the setting that affects framerate the most. Start at Extremely dense and reduce it until you are happy with the framerates.

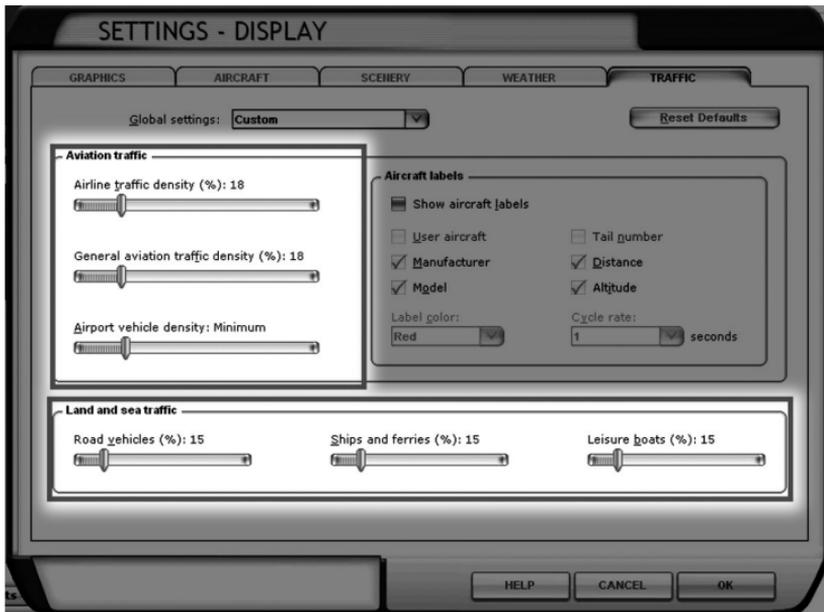


**Scenery effects:** Although important as this determines if chimneys emit smoke etc, it can be a framerate killer, so be careful setting this too high.



**Cloud draw distance:** A setting that affects framerates a lot but higher settings don't really seem to add a lot of visuals.

**Cloud detail:** Detailed clouds at medium settings will be enough for superb views, but when you are getting low framerates, the Simple clouds could help.



**Aviation Traffic:** The other aircraft in the simulator do eat a lot of frames even if you do not see them, low settings are advised.

**Land and sea traffic:** As CPU hungry as the aircraft, but they do make the roads and rivers really come to life.



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# So where do I start?

As this scenery covers such a large area, it could be hard to find a way to start. We decided to give you some advice and decided to do so per type of pilot.

## The Glider pilot

Select a glider, some nice summer weather and the VFR German South offers you a wide range of glider fields to start from. No other part of Germany has so many glider fields! Take for example Segelflugplatz Unterwössen (EP37), Select this airports and have yourself towed in the air ([[control]-[shift]-[y]]) to call the tow aircraft. You have to release the tow aircraft soon because otherwise you'll end up in the mountains, but once you gained some altitude you can find your way towards the Königssee south of Salzburg. You'll see some of the most spectacular scenery in Europe en route.

Alps:	ES81 – Geitau
	ES41 – Brannenburg
	EP07 – Warngau
	ES87 – Bad Tölz-Greiling
	EO41 – Königsdorf
	ES28 – Benediktbeuren
	ES67 – Eschenlohe
	ES77 – Füssen
	EDMK – Kempten
	ES01 – Agathazeller Moos
Schwäbische Alb:	EO24 – Hütten-Hotzenwald
	ES73 – Farrenberg (Hochplateau)
	EO40 – Klippeneck

### **The “Heavy-Metal-Fan”**

Of course this is designed as a VFR scenery, but you would be surprised how often large aircraft fly under VFR rules. For example plan a flight in the 737 from Frankfurt (EDDF) to Stuttgart (EDDS) as is flown fly Air Berlin a few times each week. If you stay around 12000 feet you will see some great scenery enroute.

### **The business pilot**

On the aerosoft.com website you will find a free mission that lets you transport some well to do passengers to the opera in Milan. You will find this mission offering you great views over the landscape, certainly with the sun low on the horizon!

### **The military pilot**

Get a nice fighter, (for example the F-16 from Aerosoft) and start from some well known military bases like Fürstfeldbruck and Airbase Ingolstadt-Manching (ETSI) where the Eurofighter is being tested. If you like to fly military transports you will feel at home at Landsberg (ETSA).

### **The private pilot**

Perhaps the most suitable user of this scenery and although not as common as in other countries, what better way to start than from your own private airfield? Grosserlach-Morbach (EU39) near Weckrieden in Baden-Württemberg is such a field and a great staring point for a flight over the countryside.

### **The helicopter pilot (Highway Police)**

Pick the default police helicopter in FSX and start from the police airfield Zimmern (EO67) for a patrol over the A81 heading south. Or choose Oggenhausen on the A7 North East off Ulm. You can follow the A7 south towards the Alps.



## **The RC aircraft pilot**

We got no idea how this airport ended up in the charts but it has got a 80 meter runway so an ideal place to practice those VERY short landings.

## **The mountain pilot**

If you start from Wildberg-Bodensee (EP08) you can fly over the Bavarian Alps. You best pick the default Maule from FSX or even better the Bush Hawk XP from our download shop because with these aircraft you got a change to land on the shortest grass field at Wildberg.

From Wildberg you can head towards Salzburg and there will be many small fields on your route to take a break. You could even land on some of the glider fields!

# Data structure

Experienced users will appreciate a look into what files so what as it allows them modify and debug compatibility issues.

- Aerosoft
  - o VFR Germany 1
    - ▣ Scenery
      - \*.bgl (*areal images*)
      - Autogen\_Library.bgl (*Autogen data*)
      - VFR\_<Area>...BGL (*VFR objects and landmarks*)
    - ▣ Texture
      - \*an.agn (*Autogen-Position data*)
      - \*.bmp (*divers*)
  - o AFD
    - ▣ Scenery
      - AF2\_<...>.BGL (*AFCAD files*)
      - BR2\_<...>.BGL (*afcad files as in My Traffic*)



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# German Landmarks

During the installation we will test if German Landmarks (by CR Software) is installed. If it is you will have the option to either remove the German Landmarks objects in the region covered by VFR Germany 3 or to keep them. If you decide to keep them you must be aware they might not complete fit on photographic base of "VFR Germany 3".

If you like to change this setting you can do so at any moment by calling the "Object Config Tool" from the Start Menu (via Aerosoft | VFR Germany 3). With this tool you can select what objects you like to activate.

If you happen to have installed "VFR Germany 3 " BEFORE you install "German Landmarks" the same tool can be used to select what you like to see.

# Frequently Asked Questions (FAQ)

The more detailed a scenery is, the larger the chance you will find things that are not correct. In FS2002 small villages were grey polygons and nobody could say that and that house was placed incorrectly. Right now we are at the stage that we placed 8.000.000 buildings as accurate as possible. But it's not perfect and we don't claim it to be perfect. But using the resources available this is as precise as FS gets. We will listen to suggestions, but please cut us some slack.

- Q:** When used with German Airfields 9 some of the airports lack autogen in the near surrounding.
- A:** This only happens in the DX10 mode that MS calls a preview and is not fully documented in the SDK. The reason this effect happens is not clear at this moment.
- Q:** Why are there buildings on airport XY not always positioned on the correct location?
- A:** The default buildings are often not placed very accurate and at the larger airports this is not always possible to solve.
- Q:** Some areas look very "green" or rather bland!
- A:** Geocontent has worked extensively to match the images but as they are done on different film material, in different seasons and even in different years some color mismatches has to be expected. Due to the huge amount of data it is not commercially viable to spend the estimated € 1.000.000 or more needed to do that work.
- Q:** I got bad framerates!
- A:** Unfortunately there is only a limited amount of help we can give you for this issue. You need modern hardware for this scenery (as you do for FSX). Follow the guidelines in the manual and let's hope MS will help us as much in performance with SP2 as they done with SP1.



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- Q:** I got strange colors near the scenery borders!
- A:** Partly depending on the graphics card/driver combination, it is an effect that is not fully avoidable using the technology used.
- Q:** My house (or other houses) are on the street! Wooded areas are not positioned correctly.
- A:** With 8.000.000 houses and several hundred thousand wooded areas it was not possible to check each and every one, check the manual for more information on the technology.  
In very serious cases (trees on runways etc) we are willing to make patches, report those to [support@aerosoft.de](mailto:support@aerosoft.de) with a screenshot and a lat/lon.
- Q:** ATC tells me there is nothing to transmit!
- A:** FSX leaves something to desire in this aspect. Airports that have no published frequencies or airports with a sloped runway cause this. It is annoying, but beyond our control. It has been bugged with MS of course.
- Q:** Some bridges are seen in 2D and 3D!
- A:** Those 3D bridges are default bridges that cannot be removed. If you increase the water effect setting the 2D bridge will be less visible.
- Q:** Archhh, no winter/special night textures?
- A:** Technically possible, but it would increase the download data from 15GB to 33 GB (or 4 DVD's to 8 DVD's). If you would have all four sections of VFR Germany installed with 2 texture sets it would need 200 GB. Even in this day and age that is simply too much.
- Q:** I miss a lot of churches?
- A:** There is no data available for that. Although religious buildings are shown on maps there is no information on what kind of building it is, We decided it was better NOT to show objects when we were not sure what to show.

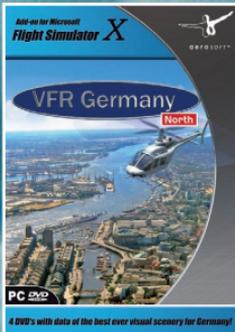
- Q:** The water (lakes/ivers) seem to have a mismatch between 2D and FSX style water!
- A:** We had two data sources for water, the areal images and a special file telling us what was water. They did not always match but it was not possible to solve all those locations.
- Q:** Rivers go up the hills!
- A:** An old FS problem and it is now seen where FSX did not have water before VFR Germany is installed. In most locations this is solved, but it might show in some locations.
- Q:** Why are many dams not added?
- A:** Dams with the differences in altitude and water level are very hard to do in FSX, often even impossible. In some locations we did add them, in other locations they were not possible.
- Q:** Why is this landmark not added?
- A:** Mainly because it is hard to decide what is important. All object noted on the charts and in aviation databases are added. But if you feel that we messed up totally because your shed is not included, write us a mail at: [support@aerosoft.de](mailto:support@aerosoft.de). We don't promise anything but we will consider each suggestion.
- Q:** Why does ATC tell me there is nothing to report?
- A:** Many airports in this scenery just do not have any published radio frequencies ands this can sometimes confuse FSX. It could also be caused when a runway is sloped. This is then not seen as an airport by FSX.
- Q:** Some large buildings have strange roof textures or that are sunk into the ground!
- A:** It's a known issue and is caused by the model that MS choose for the buildings. As most buildings in the USA they have small walls on the side of the roof. Unfortunate is the fact that this causes some larger buildings to sink too low and you'll see the ground where the roof should be.



# Add-ons for Microsoft FSX



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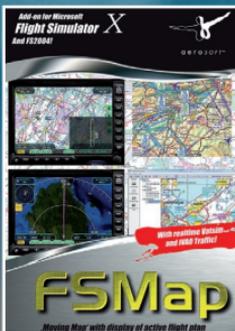
## VFR Germany 2 - North

**The ultimate VFR scenery for Germany in 4 parts!**

This is what pilots and FS fans have been waiting for a long time: The whole of Germany as a complete visual flight scenery. Adapted from highly detailed areal images in combination with all necessary landmarks such as buildings, masts and motorways. The part "North" contains Schleswig-Holstein, Mecklenburg-West Pomerania, Hamburg, Bremen and Lower Saxony.

## VFR Germany 2 - North

€ 49.99



## FSMap

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