

## EDDW2004 – Bremen Airport for FS2004 Version 3.0 (Also usable in FS2002 – see Installation)

This version is the next generation of the well known EDDW2002 for FS2000 and FS2002.  
Please read this documentation very intensive to understand all the features available with this scenery.

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# Introduction

The objective was to develop a Scenery so detailed and so close to the original as possible. And in addition it should be a complete new dynamic Scenery, where some functions, already known in Palma de Mallorca (LEPA2000) Scenery, are improved with new effects.

Not only the approaching in Bremen will turn out to a new experience, but also the look from the visitors terrace to the activity taking place at the apron.

The Scenery was developed for FS2000 and FS2002 and is now compatible to the FS2004 and FS2002. It will NOT work anymore in FS2000.

The following features are changed or added in this version:

- Enhancements to run in the FS2004
- Apron positions 6-8 are now supported with stairs, catering and busses
- The correct door position can now be defined by using the ADS tool
- After landing in Bremen, the user can now preselect the position, where the follow-me car should guide your aircraft. So you are able to give the position info of the ATC to the follow-me
- A correct approach, taxiway and position layout for the AI-Traffic is included
- The filling of the fuel at the positions is removed now, because it is not correctly supported in FS2004.

Have fun by your visits in Bremen.

## Active Assistance

A special Thank you goes to the following persons for the support to make this Scenery with the quality that you all deserve:

**My wife Alexandra:**

She tolerated all the hours that I spent in front of my PC and helped me with the English translation.

**Bert Groner:** ( <http://www.fsc-ev.de> )

He helped a lot by testing and giving advices. Thank you!

**Alain Capt:** ( <http://www.acsoft.ch> )

He is not only known for his wonderful MD11 Panel and the other instruments, he is also very helpful to find all bugs in the scenery. Many thanks for his help and support.

**Dr. Sven Heintz:**

He delivered many great pictures of the Apron and vehicles, that made it easier to design this Scenery as close to reality as possible. Thank you!

**Tom Hiscox:**( <http://www.airportforwindows.com/> )

For providing the program Airport for Windows, which makes it easier to place the objects.

**Mike Wallace:**

From his API-Macros, I was able to develop the aircrafts into dynamic objects..

And of course, I thank all of you who congratulated me for my last version and made it easier to take the initiative to keep on going

---

# 1 Installation

If you already have an older version of EDDW on your PC, please rename it or delete it.

## 1.1 Unpacking the Files

I didn't write an automatic installation, because I don't like them and I like to know what kind of files are to be installed in my PC.

The installation is really easy you just have to unpack the Zip-File and the directory must be added to the Scenery – Library Menu.

Unzip the files direct to the mainfolder of your FS2002 or FS2004 by activating the “use Folder infos”. Then the files are placed direct in the “Addon Scenery” subfolder.

```
<fs2004main>\Addon Scenery\EDDW2004   \DOC
                                         \SCENERY
                                         \TEXTURE
```

### **Note: Installation in the FS2002**

If you want to install the Scenery in the FS2002, you can do it the way explained above. You only need to install also the AFCAD file, you can find in the subfolder AFCAD under EDDW2004.

The activation is also be done via the “Scenery Library” menu, but you will find this one below the WOLRD Tab in the FSMain menu.

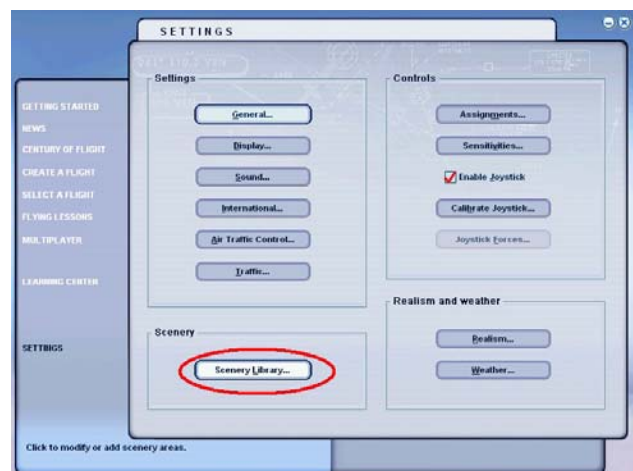
## 1.2 Add the scenery to the Scenery Library

After you have unzip the files to the folder „<fs2004main>\Addon Scenery\EDDW2004“ you need to add the EDDW2004 directory to the scenery library to make the scenery avialable in the FS.

### **Step 1:**

In the FS2004 the „Scenery Library“ in not anymore in the WOLRD Tab of the FS Main menu. Now you can find it in the Settings menu.

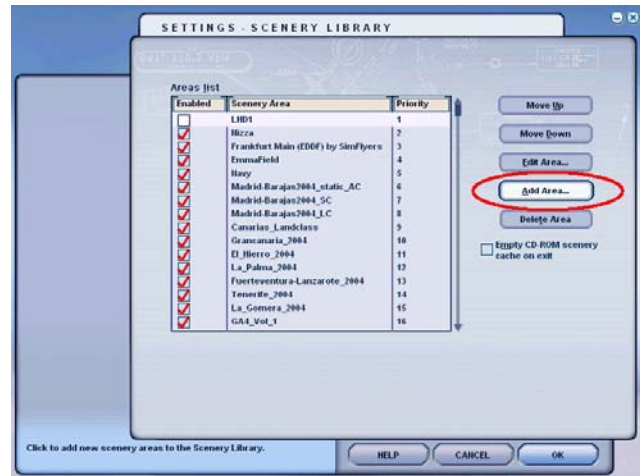
If you start the FS direct with a flight, you must press ESC and end the flight to get the menu shown on the right side.



### Step 2:

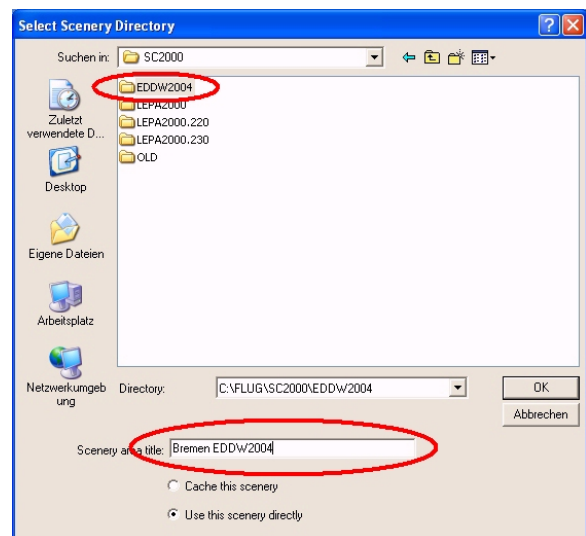
If you had an older version of Bremen already in the list, please deactivate this one first.

Then press the „Add area“ button.



### Step 3:

Now navigate to the EDDW2004 Subdirectory below the „Addon Scenery“ folder and add a description to the „Scenery area title“.

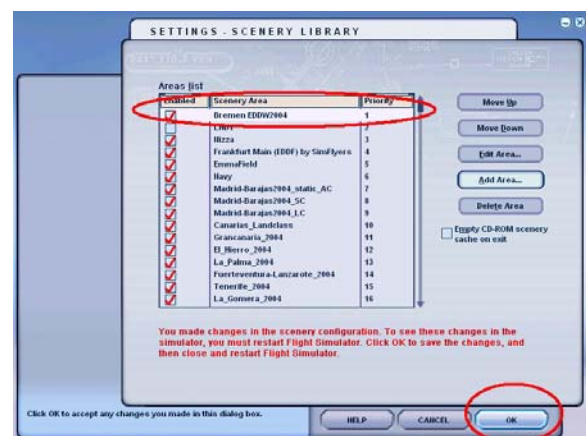


### Step 4:

Press OK and you will find the Bremen Scenery on top of the list. Please keep this scenery above all other scenery of this region.

### Step 5:

After you press OK, you must restart the FS to activate the new scenery list.



## 1.3 Adjusting the image quality

It depends on what a PC you have; and the image quality must be adjusted according to your computer. Deciding factors for the function are the Scenery complexity and the settings for the dynamic Scenery.

Other settings should be adjusted according to your needs. In FS2002, the setting of the AUTOGEN function is really Frame-Rate intensive

### 1.3.1 Scenery complexity

The following Steps are to be adjusted. The full functionality will be , at least for the first step, „dense“:

#### **Very light**

Ground textures are shown as well as the objects required for the dynamic.

#### **Light**

All buildings around the apron are shown.

#### **Normal**

All buildings in the background and the protecting wall are shown. Also the Taxiway lines are now to be seen.

#### **Dense / Very Dense**

All objects are to be seen. Fences and headlights are shown.

#### **Extremely Dense**

In addition you will see the shadows of the dynamic objects (only when aircraft shadows is active).

### 1.3.2 Dynamic Scenery

The following Steps can be adjusted. To see the activities on ground it is important, that the dynamic scenery is active and minimum set between “sparse” and “dense” (for Multiplayer or AI-Traffic). If you set the density to “Very Dense” or more, the scenery generated aircrafts will be shown.

#### **Very light to Dense**

All ground vehicles but no aircrafts (Setting, if you use AI-Aircrafts)

#### **Very Dense**

All ground vehicles and some aircrafts.

#### **Extremely Dense**

All ground vehicles and all aircrafts.

#### **Tip !!**

When the complexity of the dynamic Scenery is change while it is running, some problems may occur. That's why, please, first change the Checkbox and then save the situation. Then exit FS and restart it. This is necessary in order to get all parameters to start correctly.

## 1.4 Compatibility

EDDW2004 was tested with the Original Scenery of FS2002/2004 as well as with German Airports 3 for FS2002. EDDW2004 should be saved in a high level in the Library Menu (small priority). For **German Airport 3 Users** gives a possibility that all files with EDDW\* in their names (**and at least the file EDDWDYN.BGL must be deleted!**) can be deleted from the Scenery folder from the German Airport Scenery

## 1.5 AI-Traffic of FS2002/FS2004

The scenery is full compatible to the ATC and AI Traffic of the FS2002/FS2004. When you use it in the FS2002, you need to install the AFCAD file you find in the AFCAD subfolder below EDDW2004. If you use AI-Aircrafts, please set the dynamic Density to maximum "Dense", so that the scenery generated aircrafts are turned off. The FS generated AI-Aircraft can't be use the services on ground.

## 1.6 ATC of the FS2004

In the Scenery you can find also Transition for the approach to Bremen (NIE,WSR and OSN). You can select the transition via the ATC-menu while you are in the approach to Bremen.

**Note:**

Please do not manipulate the AI-File in the FS2004 with the program AFCAD2, because if you overwrite the Airport with the actual version of AFCAD, you lose the approach transition information.

---

## 2 ADS – Aircraft and Destination Utility

You can find this tool in the <FSMAIN>\ADDON SCENERY\EDDW2004 folder. Please do not move or copy the ADS.EXE file to any other position. It must be executed for this position, relative to the scenery folder below. You can place a shortcut on the desktop.

The ADS Tool has three important tasks:

- Definition of the door offset for the used aircrafts (new)
- Assigning the aircraft types to the aircrafts in the FS
- Defining the destination text for the departureboards

**Attention:** This program must be executed before you start the FS. Otherwise the FS will not read the changes made in this tool.

### 2.1 Setup of the ADS tool

During the unpacking of the ADS Utility it will be automatically saved in the EDDW2004 directory. It must be kept in this directory, otherwise the necessary files will not be found. Better is to have an icon on the Desktop, so that you can open it quickly.

This program is written in Visual Basic, so you need the correspondent Runtime Library. This is **not** included in EDDW2004 Package. In newer Windows Version all needed part are intergrate. So first try to start the tool.

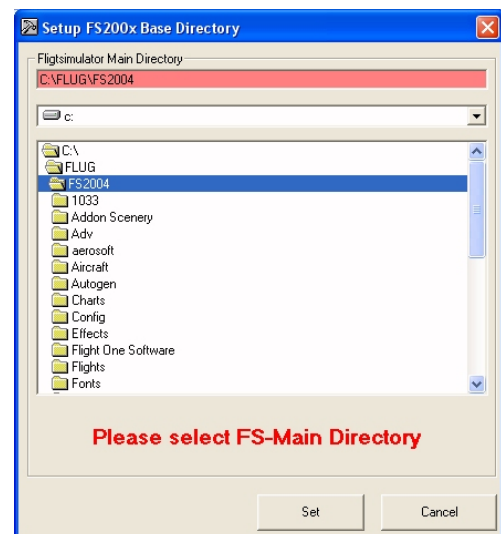
If you get an error, you can find this Library on the Website [www.Flightsim.com](http://www.Flightsim.com) under the Main Menu „Must Have Files“. The file that you need is:

[Visual Basic 6 Runtimes \(vbrun60.exe\)](#):

Required to run VB6 programs

After the installation of the Runtime Library, you should not experience any problems.

First of all you have to select the position of FS2002 or FS2004 Programm – Main-Folder respectively, by clicking on SETUP. Only then, the aircraft program under Aircraft Folder can be found.



After you have selected the Mainfolder press the Set-Button to save this information.

### 2.2 Definition of the aircraft and door-offsets

The jetways, stair and catering-cars need to know the correct positions of the doors of the aircrafts. In the previos versions of this scenery, this informations was hardcoded. So it was not possible to adjust the offsets to the need of the aircraft used in the FS. Now it is possible to change this offset for any type of aircraft.

The predefined values are done for some common used aircrafts, like PSS 32x, SSW 310 and PMDG 737.



To define the correct offset, you have different way to do that:

For every door you need three values:

- 1.) X= Distance from longitude axis
- 2.) Z= Altitude of the doorbase from the arpon
- 3.) Y= Distance from latitude axis

This values can be enter for door 1 (front), 2 (door before the wings), 3 (door behind the wings), and door 4 (back). For all door you have a checkbox to activate/deactivate the door on left or right side. So it is possible to build up also aircraft, which have not all 4 doors (like the A320 or B737). If both checkboxes are not active, the values are not displayed.

All values are releated to the left side doors, so X must be allways negative (-)

**Assign Aircraft Data**

Aircraft List:

- Airbus A380
- Boeing 747-400
- Boeing 747-200
- Boeing 777-200
- Airbus A340-600
- Airbus A340-300
- McDonnell Douglas MD11
- McDonnell Douglas DC10
- Boeing B767-300
- Boeing B767-200
- Airbus A300-600
- Airbus A310
- Boeing B757-300
- Boeing B757-200
- Airbus A321
- Airbus A320
- Airbus A319
- Airbus A318
- Boeing B737-900
- Boeing B737-400/800
- Boeing B737-300/700
- Boeing B737-500/600
- Boeing B727
- Boeing B717
- McDonnell Douglas MD80
- McDonnell Douglas MD87/DC9
- RJ85

Diagram Labels:

- Door 1 avail. L: ☒ R: ☒
- Door 2 avail. L: ☒ R: ☒
- Door 3 avail. L: ☐ R: ☐
- Door 4 avail. L: ☒ R: ☒

Input Fields:

- Nosewheel Y: 22
- Door 1 avail. X: -2.7 Z: 4.6 Y: 26.7
- Door 2 avail. X: -2.7 Z: 4.6 Y: 17.3
- Door 4 avail. X: -2.6 Z: 4.6 Y: -16.3

Buttons: Cancel, Save

Enter all Values in Meter!

You also can enter the distance of the nosewheel, but at the moment it won't be used.

The correct distance can be defined as followed:

- 1.) You have correct values of the original aircraft (or from the designer)
- 2.) You use the grid as explained below
- 3.) You do it by try and error

Note: All values must be enter in meter (not in feet).

### **Help grid in the scenery:**

There is a grid integrated in the scenery, which can help to define the offset:

- Select the aircraft you want to define the door offset
- Place it somewhere to the apron in Bremen
- Set COM1 to 135.00 Mhz
- Go to the outside view
- Now you can see the grid

The white lines define the center of the aircraft. The offset are based on the distance for the door to this white lines.

The red lines are in a distance of 1 Meter, the green lines every 5 meter.

Now you can count the line to define the offset in X and Y. You must estimate the distances below 1 meter; as well as the hight of the doorbase (Z).

As soon as you have all the values, you can select the type of the aircraft on the left side window in the ADS Tool and enter the values on the right side to the assigned door.

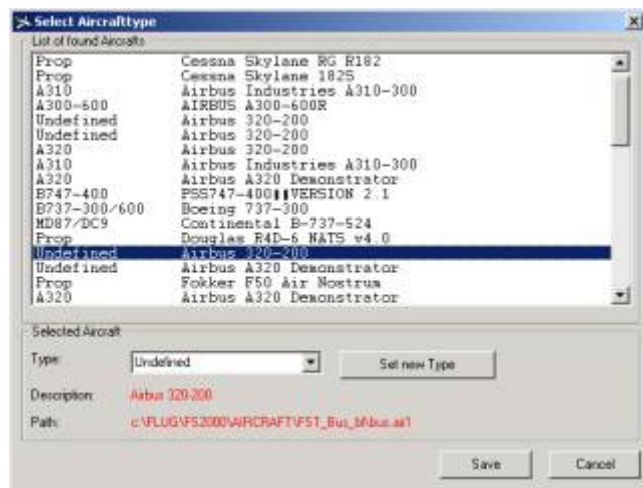
When you have done this for all aircraft-types you want to use, press the Save button to store the data in the scenery.

If the offsets of one aircraft are defined in a way in which a service can't reach the door, you will get an error list after pressing the Save-button. There you can see, which service on which position can be provided to an aircraft.

## 2.3 Assigning the aircraft type

To be able to know what kind of aircraft you are flying, after landing in Bremen, and to get the correspondent service vehicles, every aircraft must be recognized. There will be no changes in the FS folders. The aircraft AIR-File (respectively CFG-File) will only be read and the parameter selected. All the information will be saved under the EDDW2004\SCENERY .

The next step is to click the button „Edit Aircraft Type“. And you will get the following window:



You will find a list with every airplane that was found in the Aircraft folder.

A type of aircraft is selected. You will see the information on the second half of the window.

There you can select the type of airplane you are using and then click on the button „Set new Type“ in order to set the type of aircraft that you selected. If there are other airplanes with the same characteristic, you will get a window letting you know this information.



After you click on the OK button every aircraft with the same characteristic will be converted to the type of airplane you selected. It may occur, that two aircrafts have the same characteristic, eventhough they are two different types of airplanes. Here, it only helps to change the Cockpit-View middle point with AirEdit, or by selecting the correct aircraft type you are using.

Assigning the correct aircraft type is only for Jet airplanes. All other aircrafts are grouped under „GA – other /AI “ because there is no special characteristic that makes the aircraft able to be recognized.

All airplanes that under „undefined“ appear, are not correctly recognized by the Scenery. So, you can try to assign all aircraft types, but only those that are used.

If an aircraft is shown as „unsupported“, means that the parameters can't be read. This occurs by some Templates in FS200x and there is no chance of getting an aircraft type assigned. (It is also not important, because the airplanes in FS are not useable)

With the button „SAVE“ all new assigns are saved.

### Note:

If an aircraft has more then one delivery installed in the FS (the most have that), only one is shown in the tool, but the assigned type is active for all deliveries below that aircraft.

Aircraft for the AI-Traffic (ProjectAI or MyTraffic) are filtered and not shown. Maybe other Products (like FSTraffic ...) will show there aircrafts, but you don't need to assign the types there.

## 2.4 Definition of the Destinations

The third part of ADS is the button „Edit Destination“. It gives the possibility to list the destinations that will be used on the different boards.

In front of the names from the different destinations is a NAV 1 frequency, which will be used in FS to select the destination to which you will fly to.

In the Name field you can only use capital letters A-Z and blank spaces. All other characters will be automatically deleted. This field has a maximal of 20 characters.

NAV1 Freq	Destination	NAV1 Freq	Destination
108.05	FRANKFURT	108.50	KOPENHAGEN
108.10	MUENCHEN	108.55	BRUESSEL
108.15	BERLIN	108.60	PARIS
108.20	STUTTGART	108.65	AMSTERDAM
108.25	DRESDEN	108.70	PALMA DE MALLORCA
108.30	NUERNBERG	108.75	IBIZA
108.35	LONDON	108.80	MAHON MENORCA
108.40	WIEN	108.85	ANTALYA
108.45	ZUERICH	108.90	TENERIFA

Attention  
Only uppercase Letters from A to Z and Space is allowed!

Cancel Save

When you click the „SAVE“ button, the information that you changed, will be saved.

## 2.5 Exit the programm

The programm can be closed by using the button with the word „EXIT“. The programm must be restarted everytime after installing a new aircraft or after changing the destination list.

Now please restart the FS-Programm to bring the changes active in the scenery.

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## 3 Functions of the dynamic objects

### 3.1 Wind

As already described, the wind has a very important function during the planning. And so, arriving and departing aircrafts depend on the wind direction.

After you restarted FS and you placed your aircraft at Bremen's Airport, the Scenery dynamics will be activated. Then, the wind will be analyzed. By each wind changes, all airplanes on ground and on the air will wait around 6 minutes until they begin their tracks. Airplanes, arriving or departing, keep their way. The 6 minutes are so that they can end their tracks, without crashing with those aircrafts that already have a change in the wind direction. Like in real life.

Tip:

When you have FSUIPC.DLL installed, you will find the Menu „Winds“ under the Option „Transitions smoothed by layer“. If it is on, the wind changes will come really slow, so please, don't wonder if the airplanes approaching don not change their way.

### 3.2 Aircrafts

All airplanes (at the moment: B737, A320, F50 and ATR72) are from the API Files, which Mike Wallace, for some time now, uploaded at [www.Flightsim.com](http://www.Flightsim.com), in the dynamic Objects Library, they are refined, optimized and I widened their functions.

So, you can see by every aircraft the Flaps moving, the Spoiler and the separated Strobes and Bacons, as well as the special Landing- and Taxi- lights.

By Taxi at the apron, the aircrafts watch for the traffic themselves. They move to a Taxiway only when it is free and there is no risk that they will crash with another airplane.

### 3.3 Follow-me car

After the aircrafts landed, they move to a waiting position at a point on the apron and wait for a Follow-Me Car. The Follow-Me Car drive to a free position, according to the size and type of the airplane. Positions go as follows:

Jets (B737, A320) get positions 01-05, Prop's get positions 10-15

Tip:

The Follow-Me Cars react both to dynamic airplanes and to the one that you are using. To know more about how to place the aircraft in order to wait for the Follow-Me Car, please read [Chapter 4](#).

### 3.4 Jetways and Stairs

After the aircrafts arrive to their final position, the need -of course- Stairs and/or Tunnels. At positions 10-15, airplanes get no stairs because most of the little aircrafts have their own stairs.

At positions 01-05, the Tunnels and Stairs are dynamic animated. They recognize the airplane's type automatically, so long the aircraft is registered in the ACS Programm. (See [Chapter 2](#)). At position 06-08 the stairs at two doors are animated.

## **3.5 Buses**

At the outside positions come the buses alive. There are two buses, which serve positions 06-08 and two for position 10-15. One drive the guests from the airplane and the other one bring them to the aircraft. Since the buses serve all outside positions, it may occur that it takes a little bit before the bus is ready to serve your aircraft. You can see how they open the doors, the indicator and headlamps go on.

## **3.6 Fueltrucks**

On all positions you can order a fueltruck.

## **3.7 Catering**

After all guests are out of the airplane, the aircraft must get ready for the next guests.

To be able to do this, I have developed a Catering Car so close to the real ones as possible. You will also find some „specialties“ in this vehicle. As soon as they arrive to the aircraft, which is going to be catered, the loading board opens smoothly and finally goes up to the height required to load the meals in the airplane.

After loading all meals, the Catering Car gets back to its normal height and finally, goes back to the Catering building to get ready for the next airplane.

---

## 4 Service for your aircraft

Beside the dynamic objects on the apron, I have to keep an eye on your airplane. This part is really important, because usually the Flightsimulator does not have any interactivity between the Scenery and the aircraft.

The turn around in Bremen, with so many functions and how interactive it is, will make it a great experience, and your flight does not end when you land. If you want to live this experience to the maximal, please read the next chapter and pay special attention to the tips that I give.

Before you land or before your aircraft is placed, please give your airplane type in the ADS Utility (See [Chapter 2](#))

The following chapter is written in a way that describes from the Landing until your Departure. If you start your trip at Bremen, please keep in mind the tips that you will find at the end of the chapter.

### 4.1 Arriving and Landing

Since the dynamic Scenery also depends from the wind direction in Bremen, your approaching should always be the correct one:

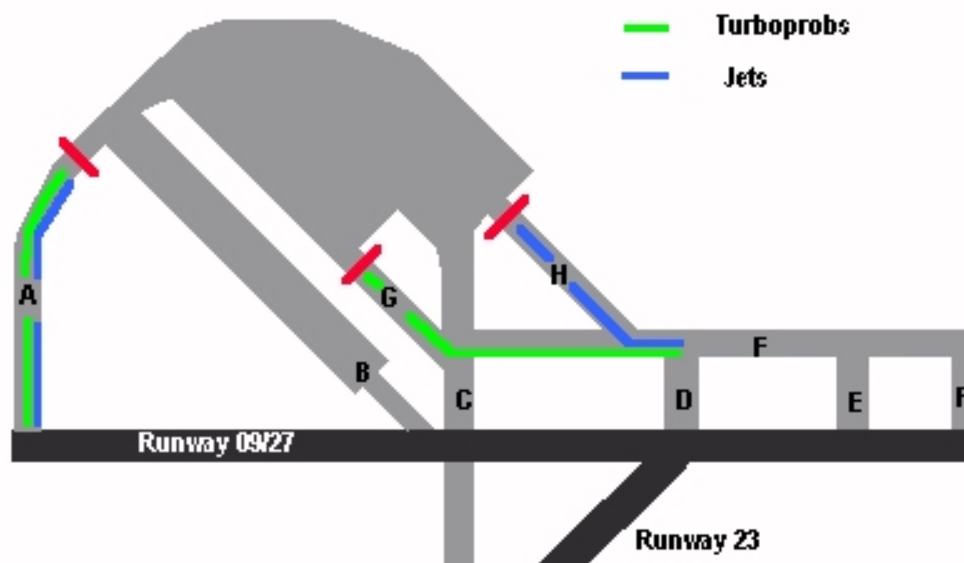
Wind 0-179 Grad, Runway 09 is active

Wind 180-359 Grad, Runway 27 is active

The dynamic Scenery for Bremen will be activated a couple of miles before you arrive at the airport, so you can see if other airplanes are on your way. Usually, the other aircrafts fly with a speed of 160-180 Knots; so you see, to keep a distance is important.

Starting airplanes control the traffic arriving at the airport before the roll to the Runway. So it should not happen, that two aircrafts want to use the same Runway at the same time.

The following graphic shows how is the approach for Runways 09/27



When you arrive from the East and use Runway 27, you must roll until the end of the Runway and then turn to Taxiway A. This is for all aircrafts, which are landing from the East.

By landing on Runway 09, you can use Rollways D, E and F. Please roll to Taxiway F and then forward to the apron. Here, there is a little difference between Jet airplanes (from RJ85) and Turboprops, as well as with regional Jets.

Big Jets should roll to Taxiway H and there wait for the Follow-Me Car. Turboprops and little Jets have to roll to Rollway G and wait there for the Follow-Me Car.

## 4.2 Follow-Me Car

There are three positions on which the Follow-Me Car waits for an airplane. All vehicles support the dynamic traffic as well as the aircraft being used by the User. That's why you have to wait until a Follow-Me Car is free and ready to serve you... just like in real life.

At the waiting position on Rollway A, little airplanes (like Turboprops) at positions 10-15, as well as big Jets at positions 01-08, will be supported.

At the waiting position on Rollway G, only smaller aircrafts, which go to positions 10-15, are allowed to wait here.

The waiting position on Rollway H will support those airplanes that go to positions 01-08.



As soon as you are approaching at the waiting position, you can see at your left side a sign, which shows if you have reached the waiting position and if you have to stop.

The following Status is possible:

- **The sign „Hold for Follow-Me“ is on:**

Keep on rolling, but slowly since you have not yet arrived at the position. Aircraft is recognized.

- **The field is free and no sign with „Hold for Follow-Me“ is on:**

Your airplane was not recognized, please roll to a position (but not much will function) and then activate the ADS Programm. (See [Chapter 2](#))

- **The sign „Hold for Follow-Me“ blinks:**

Stop, since you have reached the waiting position. Just wait until the Follow-Me Car appears.

If you do not see a Follow-Me Car in your near, it means it is supporting another airplane. Please wait, it will come soon to you.

If there is a Follow-Me Car, it will take some seconds before it places itself before your airplane. But it depends on the activity at the apron on how long it takes for the Follow-Me Car to start. You must wait if another aircraft is leaving its position so that the apron is not blocked.

As soon as the red blinkers are on, it takes only seconds. Please follow the car to your final position. It is not necessary that you keep a certain distance between you and the Follow-Me. If you are a little bit too slow, the Follow-Me Car will wait for you.

**Note: Preselection of the position possible!**

If you fly under ATC conditions, you will get a position from the controller. You can give this info to the followme-car, so that it will guide you to the correct position. This can be done by setting the NAV2 frequency as show on the table on the right. The frequency must be set direct after you enter the taxiway and you got the position by the ATC. If the frequency is not set several seconds before you reach the “wait for Follow-me” sign, the position will be ignored by the Follow-me.

If you set the NAV 2 frequency to a different value, the position is assigned by random.

NAV2	Position
110.00	01
110.05	02
110.10	03
110.15	04
110.20	05
110.25	06
110.30	07
110.35	08
110.40	10
110.45	11
110.50	12
110.55	13
110.60	14
110.65	15

## 4.3 Marshaler at the postion

In Bremen you will not find the Safegate, which helps parking your airplane, but you will find the good old marshaler. He will help the pilot by parking. When all instructions are followed correctly, your airplane should be correctly parked. Of course, the Taxi line always help.

When the marshaler indicates to the left and keeps waving with the other hand, he is trying to indicate you that your airplane is a little bit to the right, and you have to correct it to the left.

In Bremen, it is the middle to the aircraft taken in consideration, instead of the postion in Cockpit. That's why it makes no difference if the pilot sits in the middle, on the right or on the left. So a B737 stops a little bit farther as an A321.

So that the marshaler does not disappears when you come to near to him, he will move to your left side (you can see him if you look at your left window), but he keeps on giving you instructions.







On the picture on the left, you can see the marshaller when the aircraft is correctly on the Taxi line.

On the right, you see when the marshaller indicates you to stop. You have reached the parking position and the engines may be shut down.



This way of parking will be followed if you are at the Terminal or at an outside position.

## 4.4 Jetways / Stairs

Like in Palma, you will also find in Bremen dynamic tunnels and stairs. The difference here is, that they function also when the dynamic is off, and now you have the usual static files. The speed still depends on the Frame rate. But it is so defined, that by a middle frame rate is 10-20 Frames/sec., everything works ok.

The tunnels and stairs are at the moment just for positions 01-05, since at the positions 10-15 only smaller aircrafts park, and usually, they have their own stairs. On positions 06-08 you will get stairs for the front and back doors.

### How it runs:

When you have reached your final position and the marshaller had given you the signal to stop, it takes some seconds and then the tunnel and the stair to the backdoor will start to move. When your aircraft is recognized by the ADS Utility, everything should work correctly.

Tip:

The Position 01-05 is normally only used by narrow-body aircrafts. Large aircraft can get problems here and should use Position 06-08.

The tunnels and stairs will stay at your airplane so long the other services still are at your position and the time for departure comes (see next item). You cannot manipulate and remove the tunnels and stairs.

## 4.5 Departure indicator

A premier in Bremen's Scenery is the departure indicator. It not only shows the Destination to which you are flying to, it also shows the time when your aircraft is leaving. 30 minutes before departing, the little green lights will go on. Once the time for leaving is reached, the information on the board will be deleted. And as soon as all the services needed to make your aircraft ready for departure are finished, the tunnels and stairs are removed.



### How does the Departure indicator function?

#### **TIP!**

All of the following settings are only possible so long the tunnels and stairs are already active and the indicator „Ready for Fuel“ and „Ready for Bus“ are shown. The frequencies can be set before all services start, but they will be active after the tunnels and stairs are active and parked at your airplane.

The indicator is controlled with COM and NAV frequencies. I am afraid, it is the only way to have communication between Cockpit and the Scenery.

NAV1	You select the destination. Through the frequencies 108.05 – 108.95, you can select the destination to which you are flying to. (The destinations were given in the ADS Utility) In FS2002 you can have middle steps (108.02, etc.), but they will be not be used.
NAV2	Here you select the difference time for departure. The frequency must be at 108 selected, and following characters give the difference in minutes (you can only select the time on 05 minute steps). You can select between 05 – 60 minutes. If you select a time like this: 108.65, the time for departure will be random and is between 20 and 90 minutes.  For example: it is 12:00 pm and the frequency is at 108.35 selected, the departure time is 12:35 (departure times will be rounded in 5 minute step).
COM1	If you set the frequency at 120.00, whatever you have selected at NAV1 and 2 will be transferred to the Departure indicator (board). Please make this step as the last one. It takes some seconds and then your selection will be on the departure board. In FS2000 all frequencies will be reset to COM1=121.00, NAV1 + 2=180.00. Unfortunately, FS2002 is not able to reset them, so you have to select manually the value of COM1 before you can make another entry.

If your entries are transferred to the departure board, you can see how it scrolls until it shows your complete entry. To see the board from your Cockpit please combine SHIFT + BACKSPACE. At position 01 you can see the indicator through the half window on your left.

If you do not give a departure time, the „boarding“ will never end and the tunnels and stairs will remain at your aircraft.

If the departure time is reached, but the services are still at position (Tanker or Catering are not finished), the indicator stays like it is until everything is finished. Just after all services are finished, is the departure information deleted from the board and the tunnels and stairs will be removed.  
If all ground services are finished, but the departure time is not yet reached, it will be shown „boarding“ until the time for departure has arrived.

**Tip:**

At position 06-08 the board will only be display, when you have set a time and destination. Then it can be seen at the position sign in front of you aircraft.

At positions 10-15 this function also works, just that there is no indicator for a destination. The departure time will be shown on the Generator. You can select a destination, but it has no influence.

## 4.6 Holding passenger by BUS (ONLY FOR POS. 10-15)

The buses drive only to positions 06-08 and 10-15, since positions 01-05 have tunnels.

There is a different operation between position 06-08 and 10-15

### **Position 6-8:**

Here the buses operate automatically. When the aircraft is on the way to the positions, the bus is already on its way to pick up the passengers.

When the departure time is reached, another one is coming to bring the new guests.

### **Position 10-15:**

After you have reached your final position, after a while appears a sign „**Ready for Bus**“ on your window (see the picture with the fueltruck in the next item).

Now the bus can be called to collect the passengers from the airplane. It may take a moment since there is only one bus for collecting and one bus for bringing the passengers. But usually, there are not so many airplanes arriving at the same time. Good, it may happen, but then it would be too boring to wait.

And so you active the bus:

NAV2	Select the frequency value to 109.00, you want to call the bus. If you select 109.05, you skip the bus, maybe you have had a Ferry flight.
COM1	Here you select, as by the departure indicator, the frequency 120.00 and it takes some seconds in order to start your command.

As soon as the command is started, the sign on your window changes to „**Boarding**“ and then to a red signal „**Wait for Bus**“. So now, you have to wait.

When the bus has collected the passengers, the signal will go to a green text „**Ready for Fuel**“ and then you can call the fueltruck (see next item).

## 4.7 Fueltruck

In Bremen, you will find for the first time a fueltruck, which support all positions with fuel, and this works with the dynamic aircrafts as well as with the one you are using. In difference to the previous version, the fueltruck now does not fill the aircraft.



As soon as the tunnels and stairs are on position, you see on your window the signal „**Ready for Fuel**“. This indicates you that you can call the tanker.

I have chosen this type of indication, since it works at all positions and there is no Safegate, like in Palma.

It is a little unreal, but since it is also transparent, it does not disturb that much.

And here the frequencies for NAV and COM:

NAV2	If you select the frequency 109.00, you will call the tanker. If you select 109.05, the tanker will not come to support you.
COM1	Like by the departure indicator, select the frequency 120.00 and only a few seconds after this selection, your command will be started.

As soon as the command is activated, it will be shown on your window „**Boarding**“ and then it changes to „**Wait for Fuel**“. Now you only have to wait until the tanker comes, but it can take a moment, since a tanker supports three positions. But don' worry, it will come to you.

When the tanker starts to tank your aircraft, you can see it through your left window (picture on the right).

And when the tanker is finished, you will get a receipt in Cockpit (picture below).



During the tanking, the text signal changes to „**Ready for Cater**“, so long you are at positions 01-08. At positions 10-15 there is no Catering Car and the text signal will change to „**Boarding**“ until the departure time arrives. Just then, you can order the bus (see [Item 4.9](#))

At positions 01-08, now you are ready to order the Catering Car.



## 4.8 Catering Car (ONLY FOR POS. 01-08)

Now it is time to think about your passengers.  
This function works only at positions 01-05.

The Catering Car can be order as soon as the text signal „**Ready for Cater**“ appears. You can activate the Catering Car as you active the tanker with NAV2 and COM1 frequencies.



NAV2	Select the value to 109.00 and the Catering Car is ordered. If you select 109.05, the Catering function will be deactivated.
COM1	Like by the departure indicator, select the frequency to 120.00 and your command will start after a few seconds.

The text signal will change from „**Boarding**“ to „**Wait for Cater**“.

Also here, it can a few seconds before the Catering Car arrives at your position. But it will certainly come. The vehicle will arrive at your right side and drives first to the front door. And like in Palma, all functions are „smoothly“ animated. First of all it will open its doors and starts its way up. Loading the meals will take a moment. When it is finished with the front part, it drives away and you get a Catering receipt.

The Catering Car will miss the aircraft's door if your airplane is not recognized by the ADS Utility.

After the Catering is finished, it will drive back to get ready for the next airplane. The text signal will change now to „**Boarding**“ until it is time for departure. And when it is time to go, the text signal will show „**Ready for Push**“ and you are ready to go (see [Item 4.10](#)).

## 4.9 Bringing passengers by BUS (JUST FOR POS. 10-15)

When it is time for departure, the text signal will change to „**Ready for Bus**“ and you can allow the bus to bring your passengers to the airplane. This works just like when the bus collects the passengers from the aircraft.

Just to remind you how to activate the bus:

NAV2	Select the frequency 109.00 and the bus will be ordered. If you give the frequency 109.05, you will skip this function and the bus will not come. Who knows, maybe you are making a Ferry flight.
COM1	As soon as you select as frequency 120.00, your command will be started. Just like by the departure indicator.

When the bus has arrived and all guests are on board, the text signal will change to „**Ready to Go**“, and you are ready for take off.

## 4.10 Ready to Start the Flight

After all ground services are finished, it is time for departure.

But it is not so easy as by other airports. Here, you must wait until the Control Tower gives you the OK for Pushback or start rolling, or it can cause dangerous coalitions with other dynamic airplanes. And who wants that?

The principle, for positions 01-08 and for positions 10-15, is the same. But at positions 01-08 you are pushed back and at positions 10-15 you just start rolling.

The text signal can be either „**Ready to Push**“ or „**Ready to Go**“. And when everything is ready, you have to follow the next steps:

NAV2	If you select frequency 109.00, it means you are ready (this is only to secure that you do not select COM1 or that you start an adventure)
COM1	COM1 must be set to Bremen ground frequency: 121.75

As soon as the frequency is selected, NAV2 will be set to frequency 117.445 (BMN VOR, only FS2000), COM1 will stay at ground frequency: 121.75

The text signal will change to „**Wait for Push**“ or „**Wait for Go**“. This text will stay like this until there is no other airplane, that may block our way. It may be a new coming airplane that is waiting for the Follow-Me Car. Or it may be an aircraft that is also ready for take off. Whatever the reason is for a delay, it may come to a Runway change. If this happens, you have to wait around 6 minutes in order to avoid collapsing with another aircraft.

It may also means that you must wait (who hasn't that already experienced?)

Ok, but in which direction I will be pushed? Or, where do I have to turn? How was it with the wind? Which Runway is active??????

Questions after questions, but in Bremen they all get an answer:

At positions 10-15 the text signal will, depending on which runway is active, change to „**GO Left**“ or „**GO Right**“. Now the question is: in which direction do I get do the Runway?

At positions 01-05, the direction and distance for the Pushback will be shown. The Pushback was tested with the Pushback Gauges of Alain Capt, but you may use your preferred utility.

At your position it will be shown Runway 09 „**320/50 PUSH**“, that means 320 degrees – 50 meters. For Runway 27 would be „**PUSH 140/50**“, and that is 140 degree – 50 meter.

You should immediately begin with Taxiing or Pushback, since we do not want others to wait, or?

## 4.11 On the Runway



Before you are allowed to be rolled to the Runway, there must be no other airplane approaching. And this was a problem by difficult sight, you were sometimes over rolled by other airplane!!!

Note: If you use the AI-Aircrafts and ATC, ignore this line. AI-aircrafts are not reginosed.



But this is all different in Bremen. Here you have a Warning system on the Rollway before the Runway. It is red if there is another aircraft approaching. Only when there is no other airplane and there is no risk, it turns green.

On the inactive side, it is always red.

When the Warning system turns green, you should start. It may be other airplanes waiting for their chance to land, and that means for your, don't take too long to start!

## 4.12 Other functions at the Airport

All hangar doors can be opened and closed by a COM 1 frequency.

When you have a frequency selected, it takes one to two seconds, and then the door will start to open. This task will end as soon as during the opening or closing, the frequency is changed. The door stay how it is.

The frequencies for the Doors are:

COM1 open	COM1 close	Hangar door
120.10	120.12(5)	Hangar I
120.20	120.22(5)	Hangar K
120.30	120.35(0)	Hangar B left
120.32	120.35(0)	Hangar B right
120.40	120.42(5)	Hangar C part 1
120.45	120.47(5)	Hangar C part 2
120.50	120.52(5)	Hangar D part 1
120.55	120.57(5)	Hangar D part 2
120.60	120.62(5)	Roundhangar F
120.65	120.67(5)	Roundhangar G
120.70	120.72(5)	Hangar H (BVL)
120.80	120.82(5)	Hangar E (HLW)
120.90	120.92(5)	Hangar A (LFT)

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## 5 Important Tips

Most of the functions in this Scenery are possible through tricks that in the normal Scenery SDK are not possible to make. That's why here are some important tips to keep in mind:

### 5.1 Save a situation in Bremen

When a situation should be saved, while you are in Bremen, you mind that you are at the right position. If the situation is loaded, the ground service starts from the beginning, like if you have just arrived at this position. The dynamic aircrafts proof by loading if the position is free and then they do not use it.

### 5.2 Loading an adventure

When you want to start an adventure in Bremen, it may occur, that the wind direction changes. It may also take ca. 5 minutes before you get the OK for Pushback.

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## 6 Airport Charts

In contrast to the Spain, I have not found a Web Site from DFS, where approaching and apron charts could be found.

One source could be [Bremen-IFR](#)

On the website of the airport you can find some more informations about the airport, but no charts:  
<http://www.airport-bremen.de/>

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## 7 Tools Used

All objects were developed with the use of Millimetric paper and pencils and then were programmed with the Text editor SCASM Code. Other tools used were the Freeware utility **Airport for Windows** in order to place the objects and **SCASM 2.90** to code. Paint shop Pro helped on the settings of textures and [BMP2000](#) by setting of the transparent colors.

I thank each and everyone that created these tools.

Please don't ask me for any deep details, how such a scenery could be done. It is much to complex to explain and some secrets must be possible.



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## 8 Copyright

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## 9 Contact

I cannot give any support for this Scenery (that's why it is a Freeware), but I try to give advises and tips whenever someone contacts me with a Problem. I am always open for constructive critics and, of course, I am also happy to receive some compliments. ☺

For all you questions, please use the new support forum. Here the link:

[Link to the forum](#)

I will ask you, to please don't ask for the Source-Code.

At my Web Site you will always find actual information:

<http://opabst.mysimflight.com/>

Oliver Pabst, April 2004  
Germany