

# Klagenfurt International Airport

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Donationware for ©Microsoft Flight Simulator 2004



Parking Position 21 – service vehicles from AES 1.92 by ©aerosoft are not part of the scenery

## Welcome to Klagenfurt!

*"... we kindly ask you to keep your seatbelt fastened until the aircraft has reached its parking position and the fasten-seatbelt-sign is switched off. We wish you a pleasant stopover or a save journey to another destination..."*

It might sound similar if you were flying to Klagenfurt in real life. Unfortunately I am not able to offer you the nice voice of a pretty stewardess (and least of all both of it). Nevertheless, I tried my very best to bring out the aerodrome and the near proximity as real as possible.

Please decide whether or not I succeeded. I would like to recommend to investigate the scenery during a pattern training under VFR-conditions (did I already mention that you may intensify your adventure flying online with one of the worldwide communities like IVAO or VATSIM? - For sure you will not regret this experience!)

Following the concept of my first project (Freeware Salzburg Airport – LOWS\_2006) and supported by the **"Beta-Test-Team"** headed by **Dieter Salzl**, the lifetime of this project was significantly reduced. I would like to thank my friends for their assistance. This time I have to highlight the role of **Alexander Prokop** who contributed not only perfect photographs for texturing purposes but provided highly appreciated research of the location. Thank you all!

But now we should hurry up to start the installation!

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## 1. Background-Information

### 1.1. Aerodrome and Flight Information

“Alpe Adria Airport Klagenfurt” (LOWK/KLU) is one of the six international airports in Austria and connects the capital of the Austrian region Carinthia to the worldwide air traffic. The aerodrome is located in the city of Klagenfurt on 448m (ASL).

Air traffic is documented since 1914 (for military use). In 1926 a scheduled flight to Venice/Italy was established. After WW II the airport was re-opened for civilian aviation in 1951. Since then the equipment of the airport was continuously enhanced and updated (the precision-instrument-approach system according to CAT II/III is available since 2004). With regards to the near proximity of residential areas departures usually are permitted to the east (runway 10), whereas approaches are processed to the west (runway 28). Comparable to Salzburg a “Circling Approach” for runway 10L is available. After breaking off KI locator to the left you will fly in very low altitude (2700 ft) over the city of Klagenfurt and the nearby Woerther See (a lake nearby Klagenfurt). Additionally a quite complex “Missed Approach Procedure” for landing on runway 28R is to be executed – make your own experience in a “Go around” procedure!

When entering the control-zone please take notice of the speed limit of 220kt. Below 8500 ft this speed limit is reduced to 185 kt. So be prepared to set your flaps in time!

Aside from the main runway (concrete, 2720m x 45m) Klagenfurt Airport is equipped with a grass runway on the southern part of the airfield. But take care of birds - Austro Control makes mention of the migratory birds which stay here the whole year – obviously nobody has told them that they are migratory birds!

### 1.2. Location and Climate

Klagenfurt basin is located south of the Central Alps. Accordingly, the region is sheltered from the characteristic meteorological conditions in Austria with steady western winds and disorders from the Atlantic Sea. However, especially during the cold seasons “inversions” have to be expected. Thus, limitations of visibility during arrival, taxi and departure have to be considered. Heavy rain and snow is possible during low pressure conditions coming from Adriatic or Balkan lows.

Ground rises significantly on the northern part of the airport. Unfortunately this is not visible in the standard mesh model provided by Microsoft. In real a highway (A2) situated nearby the aerodrome vanishes into this mountain into a tunnel. The highway itself as well as the hill and the portal of the tunnel are included in the scenery addon.

In real life the apron is slightly higher than the runway – the difference is about 8m. To allow artificial traffic in the scenery I decided to neglect to reproduce these terrain characteristics.

On the eastern side of the aerodrome one of the main Austrian railroads (“Suedbahn”) touches the scenery (partly visible if you are using “Austrian Airports 2004”). This railroad-track is not reproduced in the addon.

## 2. Implementation and Conception

### 2.1. Design

As mentioned earlier main emphasis was made to create the scenery “as real as it gets”. Aside from the challenge to reproduce the objects close to the real world, I was trying to catch the “Look & Feel” of the area. This is one reason why I am working with photos wherever possible.

I am assuming that nearly all virtual pilots who are flying Austria are using third-party addons to enhance the locally used mesh and textures of the standard sceneries in Microsoft Flight Simulator. Accordingly, I developed the scenery in line with the most common addon (“Austrian Professional 2004” by ©Flugwerk). Therefore, minor discrepancies of the colouring cannot be avoided if you are using another third-party addon. But what I have seen during the tests confirmed me that this can be accepted.

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### 2.2. Why Donationware?

You may use the software without any limitation in terms of time and functionality for your private purpose.

The development of sceneries demands a lot of private time and requires some investments. This is the reason to offer the addon as "Donationware". You may decide if and to with which amount you want so support the design and implementation work.

For security reasons I recommend to use the "old fashioned"-way of money transfer via bank account (but be aware of the fees that your bank may charge to you!). Please find the relevant account information below:

Payee: Johannes Andreas Kimla  
Reference: "giannisworld"  
Institute: Sparkasse Baden  
Account: 0001-196591  
Banking Code: 20205  
IBAN: 102020500001196591

### 2.3. System Requirements

For optimal use of the addon a system with at least 1 GB RAM is recommended.

A modern graphics card with at least 256 MB memory is expected to be the minimum. Please do not forget that I use a certain amount of textures. The smaller the memory of the card the longer the loading time of the textures will be.

Please make sure that Service-Pack 1 of Microsoft Flight Simulator is installed.

It is possible to tweak the scenery manually by deactivating some details (e.g. parking vehicles) to discharge the system if necessary.

### 2.4. LOWK\_2007 with Third-Party Software Products

- Development was made under Windows-XP (with all current Service-Packs). We did not test the scenery under Windows-64 bit or Windows-Vista, but I see no reason why there should be problems.
- The scenery is made only for ©Microsoft Flugsimulator 2004 and will not work under FS2002 and FSX.
- LOWK\_2007 is fully compatible with "**Austrian Professional 2004**" by ©Flugwerk.
- Some manual adjustments will be necessary if you want to use the scenery simultaneously with "**Austrian Airports 2004**" by ©FSQuality (see chapter "Using Austrian Airports 2004").
- Oliver Pabst has already recognized the airport in "**Airport Enhancement Services**" (AES Version 1.92) by ©aerosoft (like for my former project "Freeware Salzburg" the services for the airport can be used without consuming "credits") – according to this I decided to decline the construction of animated marshallers and service vehicles; Nevertheless I would like to recommend this marvellous addon because it really dramatically improves the overall impression of the supported airports.
- In the meantime a huge variety of third-party addons for textures and meshes for the alpine regions is available. Many users have merged these addons; so it is very unlikely that the appearance of the region is really comparable from user to user. So I decided to offer **two versions** of files which are controlling the textures (see chapter „Seasonal Textures“); Nevertheless, the date of change of the seasonal textures may vary from user to user.

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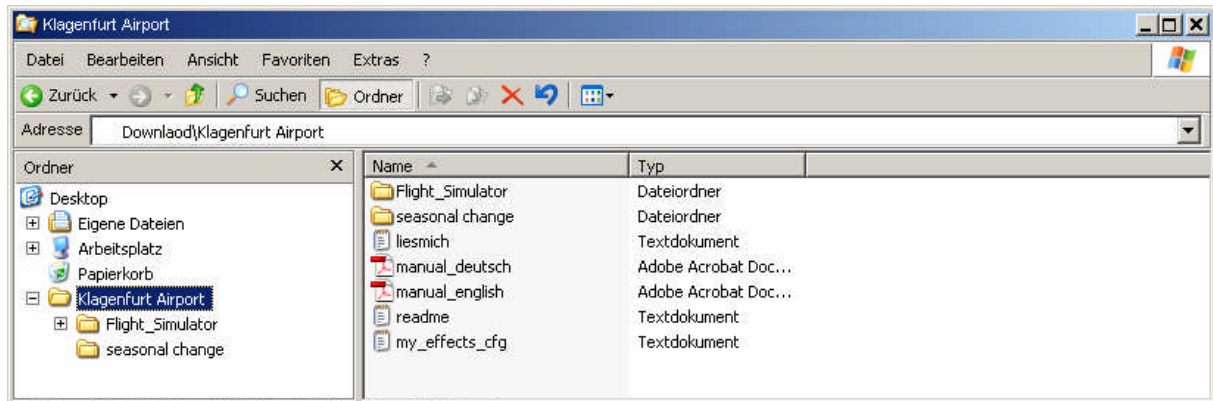
Donationware for ©Microsoft Flight Simulator 2004

## 3. Installation Notes

### 3.1. File-Structure of the Download

First of all, I would like to make you familiar with the basic structure of the download. It is very important to understand more about it to avoid problems during the installation process.

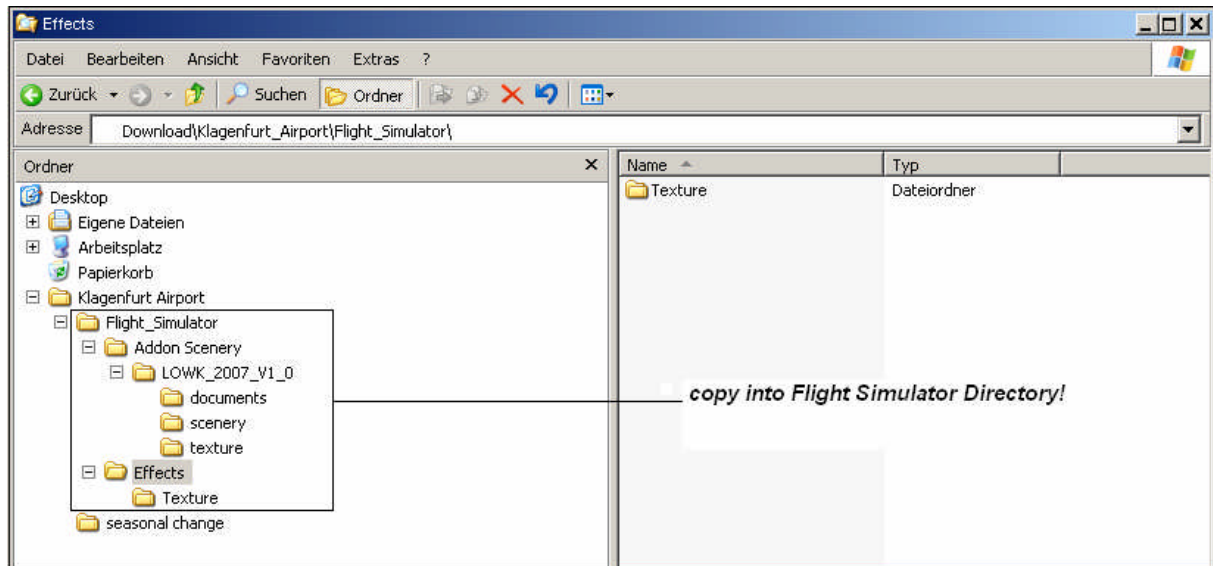
So I recommend to take a closer look at the next pages before you are starting the installation.



#### 3.1.1. Directory „Flight-Simulator“

This directory contains all sub-directories and files which may be copied without any additional manual process directly to the main flight simulator directory.

- It is very unlikely that during this process existing files will be overwritten – however, if this is announced by Windows, I recommend to cancel the procedure and to backup the existing files on a secure place!



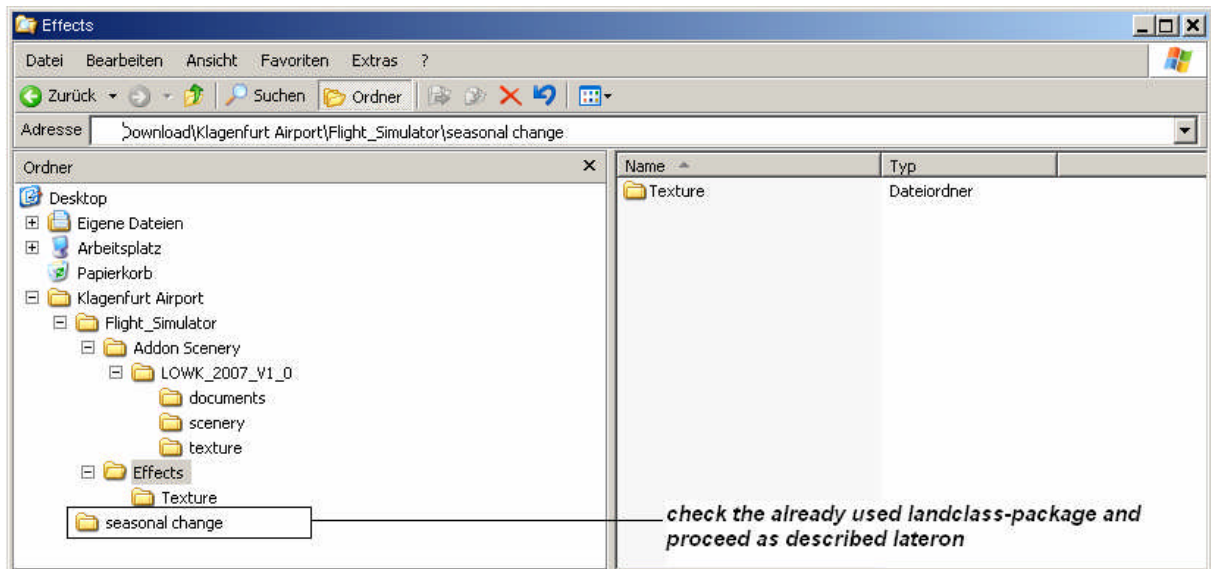
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### 3.1.2. Directory „Seasonal Change“

- This directory contains all relevant data which have to be chosen according to the yet existing and used third-party addon – details will follow.



### 3.1.3. File „my\_effects\_cfg.txt“

It will be necessary to check your existing flight simulator installation manually. Therefore this file is not included in the directory “Flight\_Simulator” – details will follow.

## 3.2. Installation „Step by Step“

### 3.2.1. Copy into your Flight Simulator

As mentioned above the content of the directory „Flight\_Simulator“ may be copied into the main flight simulator directory on your PC (for better understanding let’s assume that the path for your flight simulator is named “MYFLUSI”).

- Highlight the subdirectory „Addon Scenery“ in the downloaded package
- Right- click the mouse and choose „Copy“
- Highlight the main directory of your flight simulator (remember: we named it „MYFLUSI“) in Windows-Explorer
- Right-click the mouse and choose „Paste“

(now Windows will announce that there already exist directories with the same name: this is OK and may accepted by pressing “Yes”)

#### Desired Result

If copy-and-paste processed successfully you will find a new directory (in path „MYFLUSI“\Addon Scenery) named “LOWK\_2007\_V1\_0” (off course without quotes).

But some files you must place manually yet:

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### 3.2.2. Seasonal Change

Many users have merged several third party addons for the regional appearance. I decided to offer **two versions** of files which are controlling the textures; nevertheless, the date of change of the seasonal textures may vary from user to user.

In my personal setup the structure of dates for seasonal changes (triggered by „Austrian Professional 2004“ – ATP 2004) eliminates fall (it is already snowy in October). As far as I know the majority of used texture-packages are controlled in an alternative way (see below).

Thus, it is crucial for each user to decide which texture controlled files suits best to the yet existing installation. You will find two options for the proper installation within the downloaded package:

- The **first option** (Subdirectory „bgl\_with\_ATP“) contains the data for “pure“ ATP 2004 – users (like me)
- The **second option** (Subdirectory „bgl\_with\_others“) contains data for users of other addons (or a mixture of them). According to my information the most common periods of seasons are:
  - Early Spring: March 19 to May 8
  - Spring: May 9 to June 18
  - Summer: June 19 to September 18
  - Fall: Sept. 20 to December 21
  - Winter: Dec. 22 to March 18

The directory „seasonal\_change“ is containing two sub-directories. Depending on the addons that you already installed you will have to use the corresponding content:

Subdirectory in the downloaded package->	bgl_with_ATP	bgl_with_others
Photoreal Ground Aerodrome	photo_atp.bgl	photo_others.bgl
Photoreal Ground Supermarket (near RW28)	metro_ground_atp.bgl	metro_ground_others.bgl
3D-Objects with seasonal textures	mesh_atp.bgl	mesh_others.bgl

Have a look into your existing flight simulator **and check the date on which the seasonal textures are switched**. Now choose the appropriate subdirectory and move it into the yet existing directory of the airport scenery (remember: we named it “MYFLUSI\Addon Scenery\LOWK\_2007\_V1\_0\scenery”).

### 3.2.3. Control of Effects

For the file “my\_effects\_cfg.txt” your attention is required!

This file enables you to see the used effects if you were approaching the airport after having departed from another airport located in a certain distance (this file must be seen as a workaround for a bug in Microsoft Flight Simulator). To achieve this result a file “effects.cfg” **must** be located in the “Effects“-Directory of your Flight Simulator (in line with our assumptions this file would be named “MYFLUSI\Effects”).

As indicated: the problem itself is well-known in the designer-community. Therefore it might be that you already have installed such a file on the correct place (some installers might have managed this for you automatically). But this does not mean that the relevant content already exists within the file itself.

This is the reason why we have to do some handwork and brainwork now.

See the details on the following page:

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Please check the following:

- i. Does there already exist a file named „effects.cfg“ in the main directory “Effects” of your flight simulator installation?
  - If „yes“, please compare the content of the file my\_effects\_cfg.txt with the content of the existing file effects.cfg (to read the content please open both files with a text editor like notepad)
    - given that the file effects.cfg already contains the parameters stored in the file my\_effects\_cfg.txt no further actions are necessary (e.g. if you already have installed my former project – LOWS\_2006 – correctly this file would already exist)
    - given that the parameters stored in the file my\_effects\_cfg.txt are not contained in the file effects.cfg you will have to manually add this parameters (cut&paste) into file effects.cfg. Please do not forget to save the file effects.cfg afterwards!
  - If „no“, please rename the file my\_effects\_cfg.txt into effects.cfg and save it in your existing flight simulator directory (e.g. „MYFLUSI\Effects\“)

Quite easy – isn't it?

### 3.2.4. Trees

The used trees textures are freeware of other designers. I am not allowed to add the requested files into this download-package due to license terms. So the user will have to additionally download the required files and will have to install them according to the instructions.

But please check first if you already have installed the required files (they are frequently used in the freeware-community). If not you can find the files at:

- **Gerrish's Trees Library for FS2000/2 - Release 3** (Updated Version) – available at <http://www.avsim.com> (look for file “trees\_v3.zip”)
- **Agex\_XTrees\_lib9** by „GianP“ – available at <http://home.tele2.it/gianp/FSArea/BuildBlks.htm>

It is recommended to install these files in the main flight simulator directory named „Scenery\Generic\scenery“ – otherwise the trees will not be visible!

### 3.2.5. Priority for the Scenery

Please make sure that LOWK\_2007 is installed **ABOVE** other third party sceneries for the region in the Microsoft Flight Simulator Scenery-Library.

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### 3.2.6. Using Austrian Airports 2004 (AAP)

Klagenfurt is also contained in “Austrian Airports 2004” by ©FSQuality. A simultaneous use of both addons will cause conflicts in the appearance.

If you prefer to use the remaining airports of AAP some existing files have to be disabled manually. Usually the relevant files are stored in “C:\MYFLUSI\fsquality\austrianairports2\scenery”.

The following procedure is recommended:

- a) Create a new folder named “backup” in “C:\MYFLUSI\fsquality\austrianairports2\scenery”
- b) Move the below listed files into this new directory

#### Information:

It is crucial that really all listed files are moved as described! Due to prior installations of other addons (like “All Streets of Europe”) some of these files may already be renamed (the file suffix then is not “bgl”). What is listed below is the current file structure in my personal installation – some files have already be renamed. Generally speaking only files with the suffix “bgl” are relevant!

The relevant files in “C:\MYFLUSI\fsquality\austrianairports2\scenery”:

Relevant to be renamed	Already renamed by prior installation
AF2_LOWK.bgl klagi_3.BGL kлагstfl.BGL klalin4.bgl klalin4_DEM.bgl klalin4.exc.bgl	kлаг4_3_Bck kлаг4_5.Bck kлаг4_5_01.bck kлагgeb.Bck Klagi_3.bck klagi_3m.bck klagi_5_01.bck klalin2.bck klalin3.back klalin3_DEM.back

Given that in your personal installation a file listed in the second row still has a suffix “bgl” please rename it like mentioned above!



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### 3.6. Tweaks

For optimization of the performance some features have been implemented:

- Drawing of objects related to the distance to the user (e.g. parking vehicles, lightpoles, lamps)
- General waiving of the „crash-detection“ of objects (despite of activated „crash-detection“ in your flight simulator you may pass objects without crash) – only the northern hill with the farm houses and the highway-tunnel has „crash-detection“
- Drawing of objects related to the general settings for density (some objects or object-groups are only drawn if the density-settings in flight simulator are set to “Very Dense” and “Extremely dense”

Aside from this you may manually tweak the appearance in parts:

- You may deactivate single objects or object-groups (for instance: if you are not willing to see the parking vehicles in front of the main terminal building, you can deactivate the file “static\_parking.bgl” in directory “C:\MYFLUSI\Addon Scenery\LOWK\_2007\_V1\_0\scenery” by renaming it “static\_parking.bak” or similar).

### 3.7. Additional Features

Finally I would like to announce two “candies”:

#### 3.7.1. Tank Station

Nearby the southern hangar you will find a small fuel station which is normally used for the fuelling of the service vehicles.

I decided to “abuse” this station a little bit. So if you want to fuel your aircraft you may taxi to the station. Please switch off the engines. Have a look now on the fuel gauge – you will see that the needle is climbing up. But you will have no control neither about the fuel quality nor the quantity.

#### 3.7.2 Helipads

Additionally you will find two mobile helipads (the emergency helicopter “Christophorus II” is operated by OeAMTC and a helicopter of the Austrian Ministry of Internals; both are based at Klagenfurt). For both helicopters a mobile helipad is available (yellow for “Christophorus II”; blue for the helicopter of the Austrian Ministry of Internals) which in reality can be towed into the southern hangar for maintenance.

In the scenery the helipads are equipped with a hardened surface. So try to land onto these platforms (in reality they are a little bit smaller). Enjoy!

## **4. Final Words**

### **4.1. „Acknowledgements“**

As mentioned on the very start of this document, a lot of “comrade in arms” has supported me during the entire project – not only these enthusiasts for flight simulation are meant; I expressively would like enlarge this circle to my family. Without this kind of help and understanding a project like this cannot be successful.

#### **My wife Doris and my kids Verena and Patrick**

- The understanding of many hours (nearly 1.300) of sitting alone somewhere in front of the PC is one of the most important factors which contribute to the finalization of a project like this

#### **Dieter Salzl and the „Beta-Test-Team“**

- As usual Dieter had a stringent look on the design and was a perfect „Chief“ for the Beta-Testers. The ideas and critics of the whole test staff really motivated me to try again and again. Dieter was accompanied by:
  - Werner Springet, Roman Reiner, Alexander Prokop, Philip Mittelstaedt, Christian Pichler, Herbert Schuscha, Michael Swoboda, Gerhard Blaim

#### **Werner Springet**

- Due to his real life profession as a jet-pilot Werner is supporting me with important information with regard to procedures and ground-handling.

#### **Alexander Prokop**

- Alexander is a real pilot, flies online and is a talented photograph. In addition he lives in Klagenfurt. This very rare combination helped me to start and to finalize the project. The huge amount of pictures that he made for me with his digital camera during the last eleven months and his local research made it possible for me to design the airport without any personal survey.  
If you are interested in Alexander’s photos please use the following link: <http://www.lowk-spotting.at>

#### **Roman Reiner**

- Roman not only supported the test team. Acting as an “Art Director” he developed the homepage and manages our forum. Many thanks for this time consuming work.  
See the following link: <http://www.giannisworld.at.vu>.

### **4.2. Used Software und Data Sources**

- All objects are designed entirely with GMAX 1.2 by ©discreet (gamepacks for FS2002 and FS2004) – fort he placement and the tweaks described in this document I used freeware-applications from Arno Gerretsen
- Ramp lighting effects: based on the work of “Horst18519” (nickname) – many thanks for providing the community with this marvellous ground lights
- Graphical design: Photoshop CS2 von ©Adobe
- The ground textures are based upon photos which can be seen on the homepage of „Kaerntner Landesregierung “. I hold the written permission to use these pictures as the reference for the manually reworked textures.

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#### **4.3. Terms of Use - Disclaimer**

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#### **4.3. Versions**

1. LOWK\_2007\_V1\_0      Release-Version

„Always three greens!“

Trumau/Austria  
November 11, 2007  
gianni