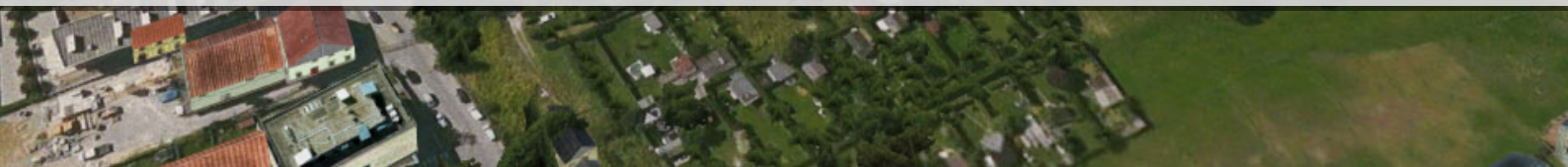




**LOWI**

# Innsbruck Airport

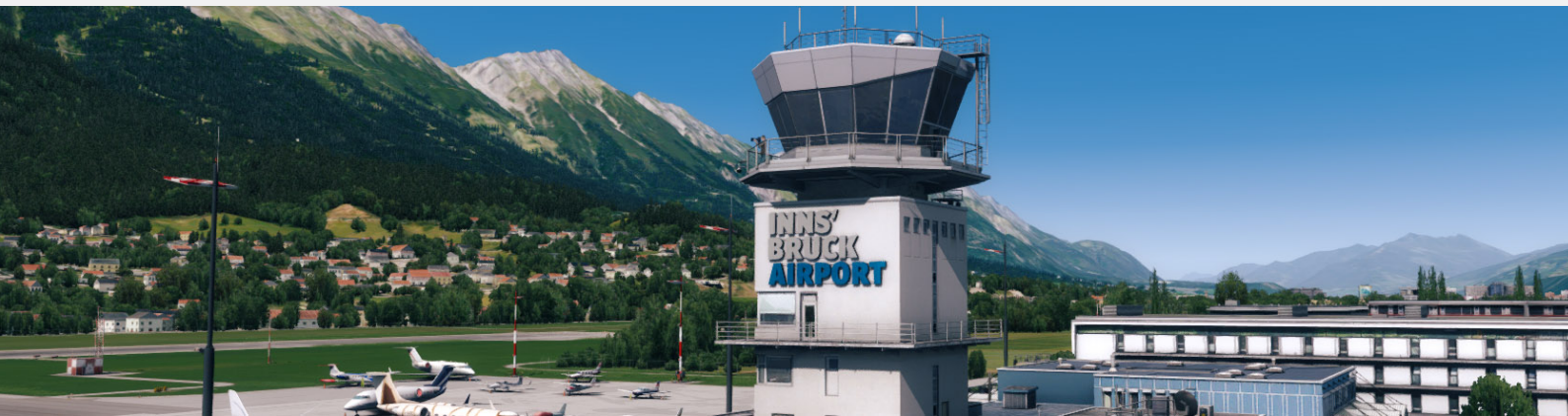
USER GUIDE MARCH 2017



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# Thank you!

Orbx would like to thank you for purchasing **FTX LOWI Innsbruck International Airport**.

A destination that needs no introduction, **Innsbruck** is one of the iconic airports of the world, with a jaw-dropping backdrop, heart-stopping approaches, and a location smack dab in the heart of Europe, only a short flight away to major German, Swiss, Italian and Austrian mega-hubs. Marking his first foray into European designations, developer **Jarrad Marshall's** fourteenth airport is by far his most ambitious project yet. In addition to the airport, an exhaustive coverage area is included (the largest PR area of any ORBX airport to date), many helicopter landing areas, and over 160 detailed landmarks and points of interest. Far beyond the city, explore the peaks of Karwendel, Stubai and Tux Alps, the picturesque Inn, Wipp and Stubai Valleys, a portion of the historic Brenner Pass and even Germany's tallest mountain, Zugspitze. Over a dozen towns and villages dot the Tyrolian landscape, each carefully reproduced with colour-blended scenery and highly-detailed autogen. Keep an eye out for visual cues useful to pilots of all stripes; animated trains, prominent structures (including notable church spires along the flightpath), custom-modelled bridges, hazardous power lines and notable buildings are all lovingly recreated.

**Innsbruck** is the largest city in Western Austria; located in the heart of the intersection of the Inn and Wipp valleys, the city is unofficially known as the **Capital of the Alps**. A major winter sports destination, the city has hosted several Winter Olympics; evidence of which can be found dotted around the city in the form of stadiums, ski facilities and institutions. Aside from this, Innsbruck is a major university city; campuses are located across the metro area, including notable locations adjacent to the airport, and of course, the famous University Hospital Heliport (LOIU). Be sure to also keep an eye out for the distinctive Tyrolean architecture to both churches and major landmarks alike.

**Innsbruck International** Airport itself is Austria's third largest, with major carriers from across Europe serving the popular tourist destination. A true multi-use airport in every sense, Innsbruck caters for aircraft from gliders and helicopters through to Boeing 767's (we won't count the one-off appearance of an A330!). In addition to the busy international terminal, a vibrant general aviation terminal (currently undergoing redevelopment) and heavy maintenance facilities, Innsbruck is home several gliding clubs and flying schools. The adjacent heliport - Innsbruck Air Rescue (LOJO) - is a major base for both Rescue and Federal Police services, both utilising EC135 aircraft. Almost all virtual pilots will be aware of the unusual departure and approach procedures for the airport - one of the very best APX designers in the business has come on board to ensure this is replicated as close to the real world as possible. Lighting, nav aids, hazard lighting - it's all included and closely matched to real-world specifications.

ORBX have endeavoured to capture the atmosphere and palette of the beautiful Tyrol region, whilst also spending a huge amount of effort on the "small details". Even so, a huge effort has gone into optimising this scenery in anticipation of you flying your favourite resource-heavy airliner - the scenery has been extensively tested under hundreds of system/aircraft/scenery combinations. Whether you are a by-the-book airline captain, bizjet guru, helicopter rescue pilot, casual general aviation flyer or even slow-and-silent glider pilot, ORBX FTX Innsbruck will be the scenery for your all your simming adventures. A great deal of love, passion and effort has gone into this project; we genuinely hope you enjoy this scenery as much as we enjoyed making it!

# Product requirements

This scenery airport addon is designed to work in the following simulators: **Microsoft Flight Simulator X, Lockheed Martin Prepar3D v1, Lockheed Martin Prepar3D v2 and Lockheed Martin Prepar3D v3.**

**Either Orbx FTX Global Base or Open LandClass Europe is also required for full functionality.**

## What will you miss out on if you don't have Orbx FTX Global Base or OLC\_EU installed?

- Blending of the airport photoreal into the surrounding terrain

**nb. FTX LOWI is also compatible with FTX Vector, however this is not a requirement.**

Please visit <https://orbxdirect.com/> to purchase your copy of FTX Global or openLC EU if you haven't already done so.

# Quick Installation Guide

Installing Orbx FTX LOWI is all managed by our FTX Central application. This app is responsible for many aspects in maintaining your Orbx installation. Please visit the support forums to learn more.

Once you have added LOWI it will be added to your account and you can have FTX Central download and install it for you. The appropriate scenery library entries will also be managed by FTX Central.

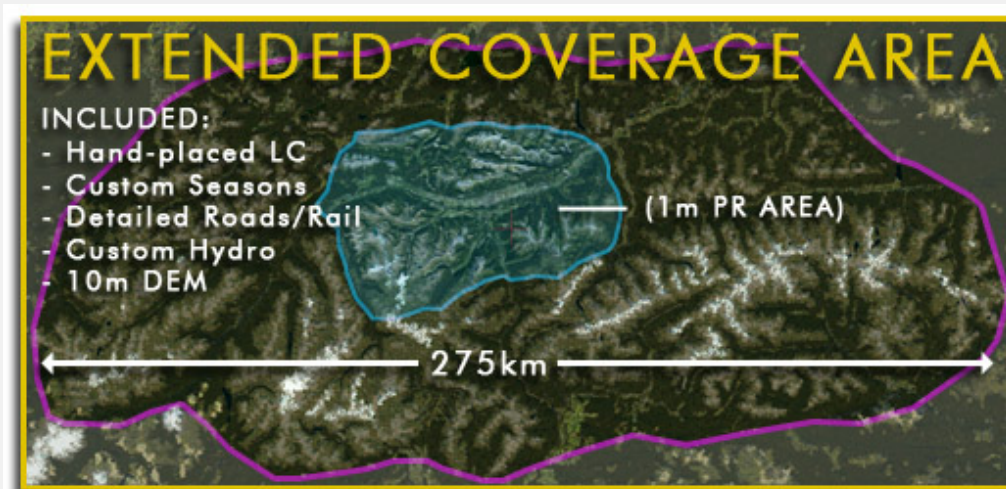
You may also manually download LOWI and then have FTX Central manage the installation for you once downloaded.

**An internet connection is required for FTX Central to validate your license.**

*Please note that the above all refers to FTX Central 3. Earlier versions of FTX Central are no longer supported but will still function as before. The integration of FTX Central with your OrbxDirect account is only available with FTX Central version 3 and above.*

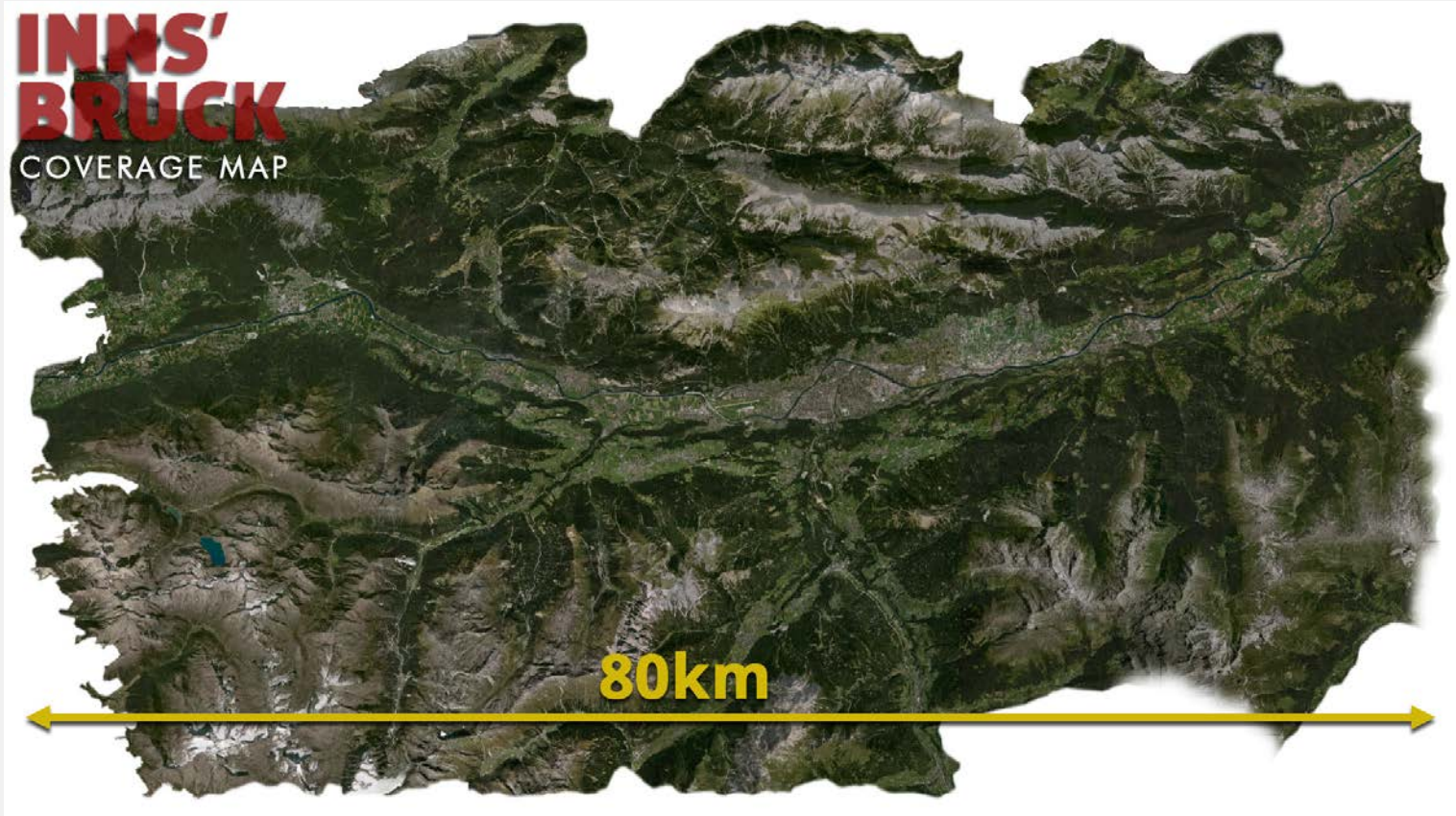


# Scenery Coverage Area





## Scenery Coverage Area (cont.)



**Innsbruck** includes a **massive 2500km<sup>2</sup>** of photoreal coverage area in crisp 1m/60cm/30cm resolution - our largest coverage to date! In addition to this expanse to explore, we have an even larger **Extended Coverage Area** - a buffer zone between the default terrain and LOWI, which mimics most of the components you would find an FTX Region, including:

1. **Hand-placed landclass** (utilising landclass types from either Global Base or OLC\_EU)
2. **Custom seasons** to ensure your tree changes, snowlines and ski season are accurate
3. **Detailed Vector Components** Road, rail, forest cuts, and arterial power line routes
4. **Custom Hydro** rivers, dams and all waterbodies accurately portayed
5. **Crisp 10m Digital Elevation Model (mesh)** to ensure those Alpine peaks look their best!

This is in addition to all the usual trappings you would find in an ORBX photoreal coverage area, which include:

1. **Orthoimagery** Colour-blended, expertly edited and cleaned at 1m, 60cm and 30cm resolutions (all downsampled from sharp 25cm source data).
2. **Extremely dense custom autogen** - including painstaking hand-placed veg and buildings, maxed out for the best balance between complete immersion and performance.
3. Unique **ORBX 3D Lighting**
4. **Complete set of five seasons**, including hand-drawn snowlines (WI) and falling-leaf ground splashes (FA)

# Additional Product Info and Features

## AIRPORT & HELIPORTS:

1. **Innsbruck Airport (LOWI)** The centrepiece of the scenery in full ultra-HD
2. **Innsbruck Air Rescue Helipoint (LOJO)** Major heli base attached to LOWI
3. **University Hospital (LOIU)** - the famous rooftop helipad in the city centre
4. **Hat Tux Helipoint / Alpin 5 (LOJT)** - Forward base for alpine rescues, high up in the alps.
5. **Fire Service College Helipoint (LOIN)** - A fun location, hard to find. Medium-detailed POI
6. **Unnamed Emergency Helipad** - A heli landing area near Buch-in-Tirol. Low detail POI

## SCENERY FEATURES:

1. **Ultra-detailed rendition of Innsbruck Airport**
2. **Enormous coverage area at 1m/60cm/30cm** - see Coverage Area section for details
3. **Custom GSE** Exclusive to Innsbruck
4. **All-new Static Aircraft** - All types/skins unique to Innsbruck!
5. **Advanced Rendering and Ambient Occlusion** for maximum realism in all sims.
6. **Highly detailed and AI-ready APX** designed by resident APX Guru, Graham Eccleston
7. **Over 160+ Landmarks and POI** in coverage area, including detailed CityScape.
8. Animated airside vehicles and **extensive animated train networks**
9. Full suits of ObjectFlow, PeopleFlow, Textureflow, CreatureFlow and more included
10. Airport model based on exhaustive **on-site photography** by Fabian Klamm, Maximilian Gruber and Fabian Stuefer
11. **Advanced night-lighting techniques** for best immersion during after-hours ops.
12. **Five additional heliport landing areas** for exploring the extensive coverage area
13. **Advanced control panel options**
14. **Highly-detailed ground poly** including unique water puddle and oil stain features
15. **Heavily optimised for good performance** with advanced aircraft products across all platforms

## NOTABLE FEATURES, POI & LANDMARKS

- Most major buildings in Innsbruck City Centre including University campus, hospitals, churches and hotels.
- 5x animated trains over 30km of routes, including local, ICE and freight (OBB) types.
- Both major train stations modelled - Innsbruck Central and Innsbruck Westbahnhof, including brand-new Adlers Hotel
- Olympic Park, Tirol Football Stadium and Ramada Olympic Park hotel
- Bergisel Olympic Ski Jump
- Innsbruck University Technical campus (massive complex next door to airport)
- Europa Bridge (one of the tallest in Europe)
- Many major churches including Basilika Wilten, Stift Wilten and others
- Most notable apartment towers
- Important aircraft navigation references and reporting points, including the Church at Axams
- 20+ custom modelled bridges, elevated freeways and overpasses
- Outlet shopping centre
- Standschützen Military Base
- Large sections of detailed powerlines with visible cables
- Zugspitze - the tallest mountain in Germany
- Many other apartments, schools, shopping centres and industrial complexes - over 160+ custom POI in total.

## JUST A SMALL SAMPLE OF SOME OF THE AREAS TO EXPLORE (next page):





Complete seasonal variations for the entire PR



Custom animated train routes - 30km of routes!



Hat Tux Heliport / Aplin 5 (LOJT)



University Hospital Heliport (LOIU)



Innsbruck Air Rescue Heliport (LOJO)



Fire Service College Heliport (LOIN)



Unnamed Emergency Landing Area - Buch-in-Tirol



Water-Salute! Every Saturday, 1300-1400 local



Bergisel Olympic Ski Jump



One of the 20+ custom bridges



# Airport Information and Charts

For copyright reasons, we are not yet able to publish charts for Innsbruck airport. In the meantime, please find all required aerodrome charts, additional airport information, and approach/departure plates from the following links, care of Austro Control:

**Innsbruck Airport Aerodrome Chart:**

[https://eaip.austrocontrol.at/lo/170427/Charts/LOWI/LO\\_AD\\_2\\_LOWI\\_24-1-1\\_en.pdf](https://eaip.austrocontrol.at/lo/170427/Charts/LOWI/LO_AD_2_LOWI_24-1-1_en.pdf)

**Innsbruck Airport Supplemental Aerodrome Information:**

[https://eaip.austrocontrol.at/lo/170427/PART\\_3/AD\\_2/PRI/AD\\_2\\_LOWI/LO\\_AD\\_2\\_LOWI\\_en.pdf](https://eaip.austrocontrol.at/lo/170427/PART_3/AD_2/PRI/AD_2_LOWI/LO_AD_2_LOWI_en.pdf)

**All LOWI approach, departure and obstacle (minimum heights) charts:**

[https://eaip.austrocontrol.at/lo/170427/ad\\_2\\_lowi.htm](https://eaip.austrocontrol.at/lo/170427/ad_2_lowi.htm)

Note: All links to online pdfs and websites require internet access to view.

# Important Information on AI Aircraft

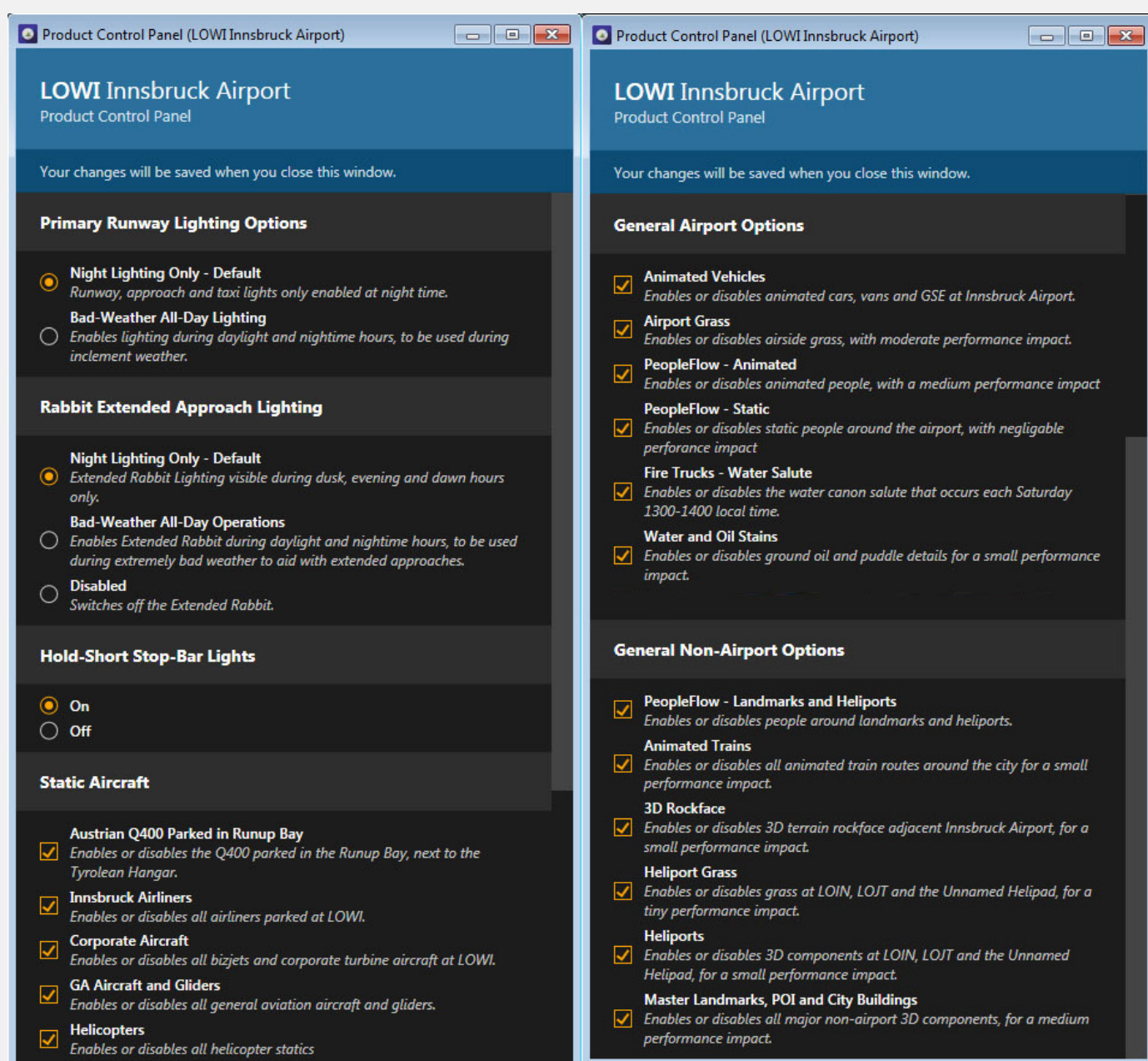
The P3D/FSX AI engine contains many limitations surrounding the approach and arrivals of aircraft, particularly in relation to custom routing and procedures. APX guru Graham Eccleston has pushed the boundaries with his LOWI APX work, and has managed to overcome some limitations. As such, he set up **custom curved approaches to direct AI traffic through the valleys at each end of the LOWI runway**. This will enable AI aircraft to fly in a curved track and avoid the surrounding mountains when approaching the runway end. Unfortunately though, there is no way to produce curved departures, so some aircraft may run into issues with terrain after departure, depending on individual destinations and automated routing. This is a limitation of the FSX/P3D AI engine, and everything has been done to mitigate this from happening.

The custom curved approaches are compatible with major AI packages, so long as the aircraft plans are notated as IFR (almost all Airline traffic routes are). VFR flightplans will use default circuit/approach patterns.

# The LOWI Control Panel

The LOWI Control Panel can be accessed from the main FTX Central interface by clicking the Configure button.

The Control Panel will enable you to disable or enable certain scenery features of the airport to allow it to perform in accordance with the PC hardware you have. By default, all scenery options are enabled by the installer. If you have a high end PC, enable all the CP options. For low to mid-range PCs it is recommended to try disabling some settings.



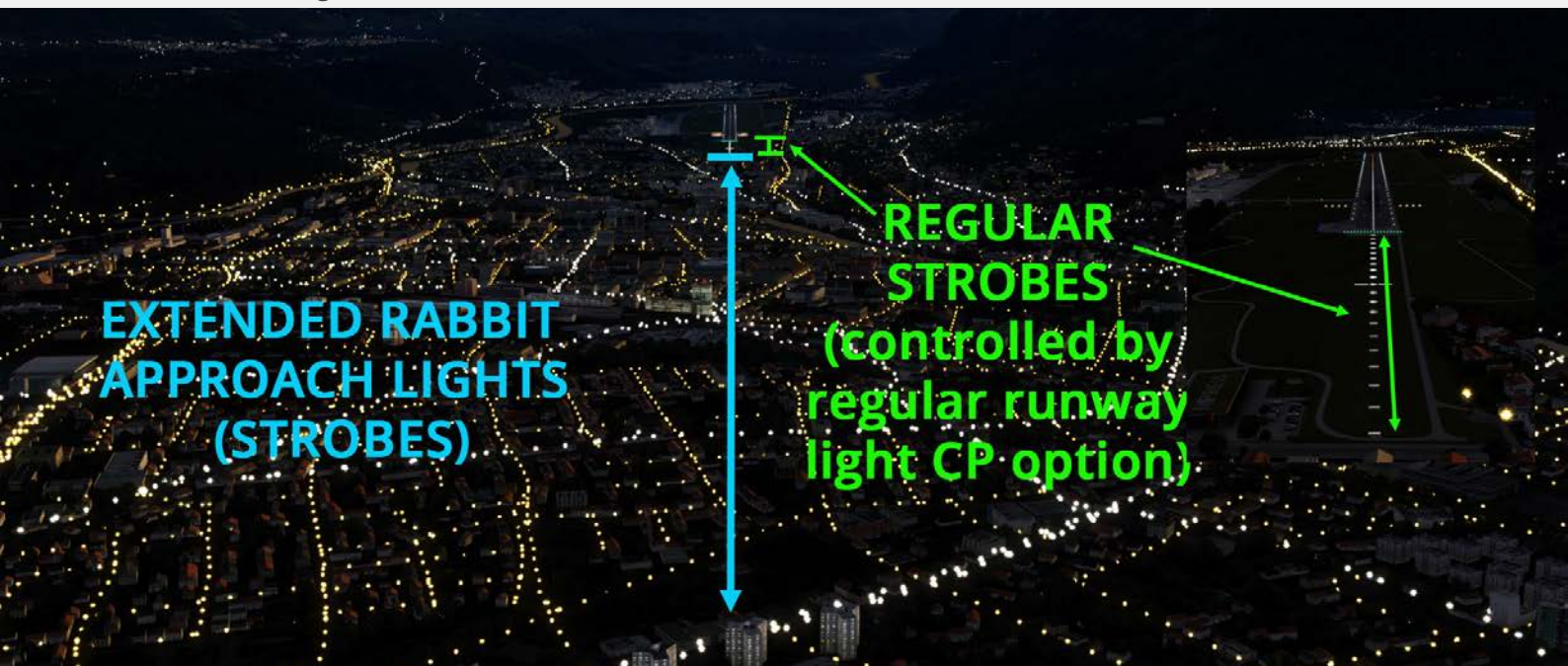


## The LOWI Control Panel (cont.)

Below are descriptions of some main control panel options:

**Primary Night Lighting:** Describes all runway edge, centreline, taxiway and regular approach lighting. Set to night-time (including dawn/dusk) by default, but option possible for daylight (inclement weather) operations.

**"Rabbit" Extended Approach Lighting:** LOWI has a unique "rabbit" extended strobe lighting system for RWY28, which extends 5km beyond the runway threshold, through the centre of the city. This is used as an additional landing aid for pilots during low-visibility conditions, in real life it is activated (day or night) at the discretion of Air Traffic Control. By default, our version of LOWI has it activated at night only, however you can also choose day-and-night ops, or deactivate the rabbit altogether.



**Hold-Short Stop-Bar Lights:** At each taxiway/runway threshold, you will find stop-bar lights, which will display red. Once your user aircraft is close enough to the threshold (awaiting runway clearance), the lights will automatically change to green. In real life, these are controlled by ATC, however this is the closest that we can replicate using ObjectFlow technology!



# Quick Reference Simulator Settings

The table below lists in a handy reference the minimum recommended settings required in your simulator to enjoy LOWI the way Orbx designed it. These settings will run well on most PCs and take particular advantage of the custom mesh and photoreal imagery used in the scenery area.

If you use the settings below you will be guaranteed the highest fidelity experience and the best balanced performance.

## Important Information for FSX (Boxed Edition) users:

### Building texture resolution:

Some priority buildings at Innsbruck use 2048x2048 resolution textures. To run the textures at 2048, it is important that you make the following changes to your fsx.cfg:

**TEXTURE\_MAX\_LOAD=2048**

**This is not done automatically in FSX Boxed Edition, and will need to be edited by the user to ensure the textures display as desired.**

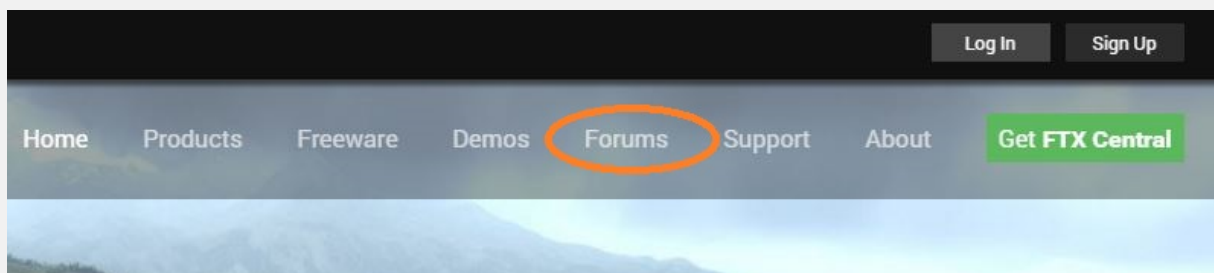
**For FSX: Steam Edition and P3D users, this texture resolution can be changed via the Global Texture Resolution slider in your scenery settings.**

Setting	Value	Why?
Level of detail radius	Large	Reduces blurring of textures.
Global texture resolution	Max	Displays photoreal textures best.
Mesh complexity	100	Better terrain definition.
Mesh resolution	5m	5 m is required for LOWI
Texture resolution	7 cm	Sharpest roads and freeways.
Scenery complexity	Extremely Dense	How Orbx designed FTX LOWI.
Autogen density	Normal	Best FPS vs detail.
GA AI traffic	16-50%	Recommended for this scenery.
Road vehicle traffic	16%	No need to set higher for FTX.



# Product Technical Support

Orbx has a very simple support policy: no question unanswered. That means, should you have any questions about LOWI or its use, please feel free to register on the forums at [orbxdirect.com](http://orbxdirect.com) and then log a support question in the FTX Payware Support Forum section. Orbx FTX experts will be available to review your support questions and you will usually get a reply on the forums within 12 hours, often much sooner than that.



To visit our support forums, click on the “Forums” button shown on the homepage of [orbxdirect.com](http://orbxdirect.com).

## Please do NOT email support requests

Orbx provides world-class support on our forums, and it’s the only way in which you can receive support for LOWI. Provided you adhere to the forum terms of use and have a legitimate copy of LOWI, you will always be offered our support at no cost as we work toward a resolution to your problem each time.

## Use the forum search function

Before you post a question, please try searching for the answer first, using the forum’s built in search function located on the forum menu bar.

## What to include in your support requests

If at all possible, this is what we’d like to see provided for each request you log:

- A separate post on the FTX support forums for each issue (don’t tag new issue reports onto existing threads).
- Include your TRANSACTION ID from your LOWI purchase in your post or forum signature section.
- A screenshot to highlight what you are talking about.
- A descriptive post title which clearly states what the issue is.
- Detailed comments in your post about what you are reporting on.

The Orbx support team is always on standby to assist you with any problems you may have, or will comment on your issue reports. Please remember, our priority is fixing any urgent issues first, and addressing bug reports second. Clearly though, any “show stopper” bugs will be given top priority though.

# FTX Community Forums

FTX already has quite a thriving and active user community on the forums, with over 63,000 members as of September 2016. To visit the forums, just point your web browser to [orbxdirect.com](http://orbxdirect.com) and from the front page click the “Forums” menu item.

You don't need a user account to view other people's posts and information posted by Orbx staff, but if you'd like to join in on the discussion there, simply create an account. It's instant and no validation email is required. We like to keep things simple☺.

We hope to see you there soon!

## Thanks for reading!

You've stuck with us through all these pages of information, and we appreciate you taking the time to read the user guide. We hope it gave you some tips and insights. See you on the forums!

*Jarrad Marshall*

**Lead Developer**





# The FTX LOWI Team

## Lead Developer

- **Jarrad Marshall**

## With Assistance from

- **Graham Eccleston:** APX Guru & customised AI approach programming
- **Edward Boyte:** APX assistance
- **Fabian Klamm, Maximilian Gruber & Fabian Stuefer:** on-site photography & expertise
- **Wolfgang Kopp:** Airport assistance & local expertise
- **Holger Sandmann:** DEM assistance

## Specialist Roles

- **John Venema:** Business management
- **Ed Correia:** Production Management
- **Ben McClintock:** FTX Central and website

## Beta Testing Team

Phil Manhart, Fabian Klamm, Ross Casey, Friedi Gulder, Rob Abernathy, Richard Bui, Jon Murchison, Voyager, John Lovell, Wolter van der Spoel, John Dow and John Tavendale



# End User License Agreement (EULA)

For the most recent version of the EULA, see [orbxdirect.com/eula](http://orbxdirect.com/eula).

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