



orbx
simulation systems



Europe

Norway

USER GUIDE SEPTEMBER 2016



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Thank you!

Orbx would like to thank you for purchasing FTX EU NOR – Norway. FTX EU NOR has taken a team of developers nearly a year to complete. It is the sixth region in our European series and we hope you'll enjoy its wide range of carefully modelled features.

Product Features

Norway is synonymous with seemingly endless shorelines -- about 16,000 miles of it, not counting those of the 50,000 or so offshore islands -- and its majestic fjords and sheer cliffs. However, the country has much more to offer than just granite and water. Its elongated shape spans an impressive thirteen degrees of latitude, the equivalent of a trip from Juneau, AK (N58) to the very northern edge of Alaska (N71). The interior mountains are dissected by many river systems while the far northern plateaus feature subarctic forests and arctic tundra. By contrast the southeastern section has more gentle topography with a mosaic of forests on the mountains and agricultural areas along the broad valley bottoms. Major urban centers include Oslo, Kristiansand, Bergen, Stavanger, and Trondheim as well as the northern communities of Narvik and Tromsø.

FTX Norway covers ~160,000 square miles (~420,000 sq. km), all of Norway (*) plus narrow boundary regions of adjacent Sweden, Finland, and Russia. Hand-placed custom landclass (=land use type) along with the road and railroad networks, power lines, wind farms, and major vertical obstructions are included for true-to-life VFR flying. Many key points of interests, urban as well as natural, are featured with seasonal photoreal coverage and are fully annotated with autogen buildings and vegetation. The city of Ålesund has received special "Cityscape" treatment and we've also added important structures in Norway's capital, Oslo. Custom models of other landmark structures include two dozen major bridges, 28 of the iconic wooden stave churches, and almost 100 lighthouses. Just like with our other region titles we've given each of the 117 listed airports and 18 unlisted airstrips a major upgrade, with more accurate placements of runways and taxiways as well as buildings, hangars, static aircraft, moving people (and creatures), and lots of "clutter". Last but not least all ground textures are hand-annotated with our custom autogen objects including the spectacular and frame-rate friendly FTX Global-style night lighting.

- Superb ground textures from local sources
- Hand-placed landclass covers every sq. mile
- Custom autogen textures and objects
- FTX Global 3D night lighting effects
- Accurate roads, rivers, lakes, power lines
- 135 airports have been added or upgraded
- Custom models of 25 significant bridges
- 28 stave churches and 97 lighthouses
- Highly detailed Ålesund "Cityscape"
- Enhanced Oslo waterfront and downtown
- 12 photoreal natural and industrial areas
- Customized 10-m resolution terrain mesh

() Please note that the Arctic Ocean islands of Svalbard and Jan Mayen are not included with FTX Norway -- no suitable data were available -- though we've enhanced both ENSB (Svalbard Longyear) and EN67 (Brøggerhalvøya) airports.*

Product requirements

This scenery 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.**

Compatibility notes

Please visit <http://orbxsystems.com/forums/index.php?board=118.0> for the latest compatibility information between FTX NOR and third party addons.

FLIGHT1 - ULTIMATE TERRAIN X EUROPE (UTX)

Ultimate Terrain X Europe is a commercial add-on developed by Scenery Solutions (Allen Kriesman) and distributed by Flight One. It replaces the default water bodies, road/railroad network, and other landscape components with more detailed renditions. FTX EU NOR makes the UTX components redundant within its coverage area and is coded so that local exclude files will suppress the display of all UTX features while leaving UTX undisturbed outside the FTX coverage areas.

The exception is the current UTX 3D night lighting system, which cannot be excluded and we're planning on posting instructions in the FTX Compatibility subforum for manual deactivation of the overlapping UTX files. The alternative is to disable the UTX night lights while flying in Norway.

FLIGHT1 - GROUND ENVIRONMENT X (GEX)

GEX is a default FSX/P3D texture replacement product and their textures will not appear inside FTX EU NOR since we use custom landclass textures which are called from within the FTX folders only. This means you will see GEX outside the FTX EU NOR boundaries and our textures as soon as you cross over into EU NOR. However, you may want to use FTX Central to switch to the 'Default' region when flying outside EU NOR with GEX in different parts of the world.

REAL ENVIRONMENT XTREME (REX)

FTX EU NOR is 100% compatible with REX and you do not need to do anything special to use REX whilst flying over EU NOR. In fact, most of the Orbx developers and beta testers use REX, and it is an Orbx recommended add-on.

Quick Installation Guide

Installing Orbx FTX NOR 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 purchased NOR 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 NOR 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.



Once loaded into Google Earth, you can select all or some of the features included in the scenery, and the corresponding icons will appear inside the map boundary. You can click on each item on the map for a popup balloon which provides details for that airport or POI.

This is a useful tool to begin to explore the features and points of interest included in FTX NOR.



The NOR Control Panel

The NOR 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.



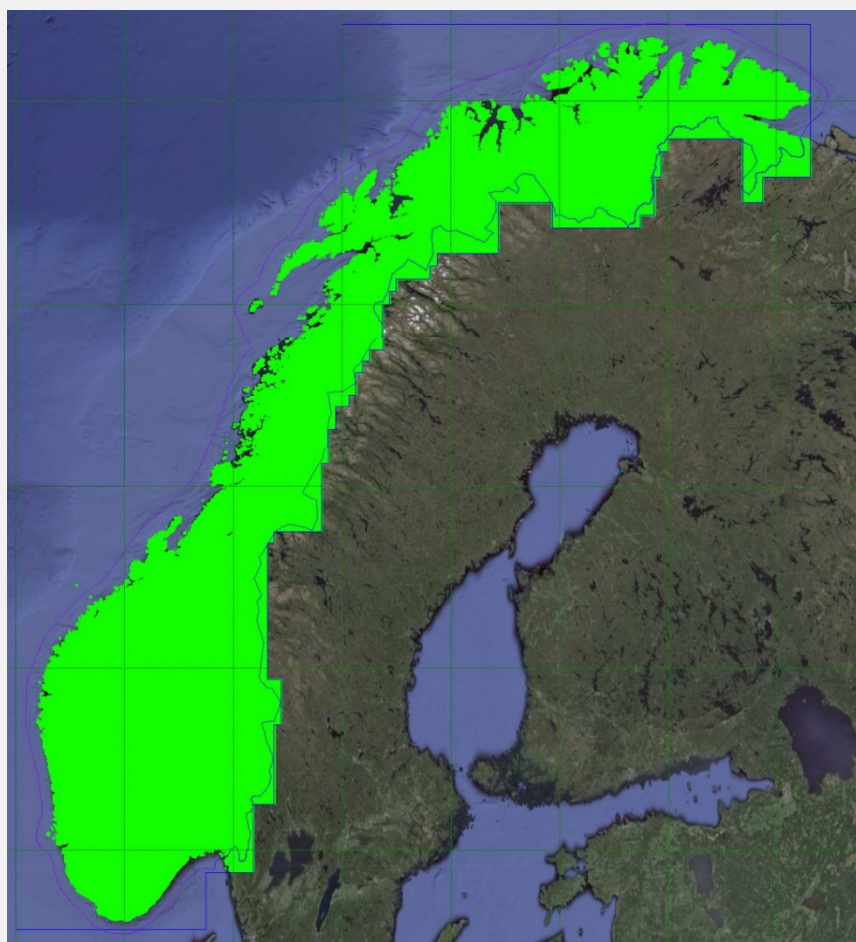
What is Custom Landclass?

Landclass are special files which reside in the scenery layer “pie”, and their role is to tell FSX what Landclass are special files which reside in the scenery layer “pie”, and their role is to tell FSX/P3D what type of ground texture to place in any given square kilometre cell. In other words, landclass files tell the simulator to place a field here, a township there, forest here, and a railway yard there, and so on.

As far as we are aware, FTX is the first flight simulation product to feature totally hand-crafted landclass on such a large scale. Many global or country-specific add-on landclass products for FSX/P3D are created using various data sources and compiled using automated scripts and then manually rectified for obvious errors.

This is not so with FTX. The diagram below gives you an idea of the custom landclass which was shipped with FTX EU NOR. Every single square mile in the green highlighted areas was hand placed by our team, using a combination of many sources, including street maps, aerial photos, and topography charts to name a few.

The result is nothing like you have ever experienced before, with an almost photoreal feel to all areas which have been edited, but with the added benefit of faster loading times, full five seasons’ support and hand-placed custom autogen and library objects in every single kilometre of the region.

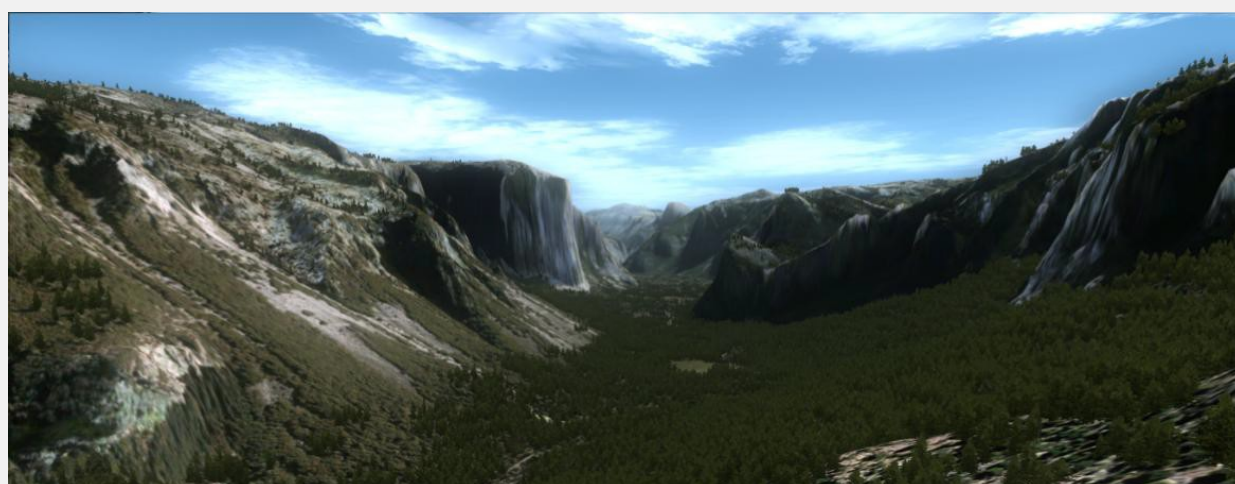


Quick Reference Simulator Settings

The table below lists in a handy reference the minimum recommended settings required in your simulator to enjoy NOR 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.

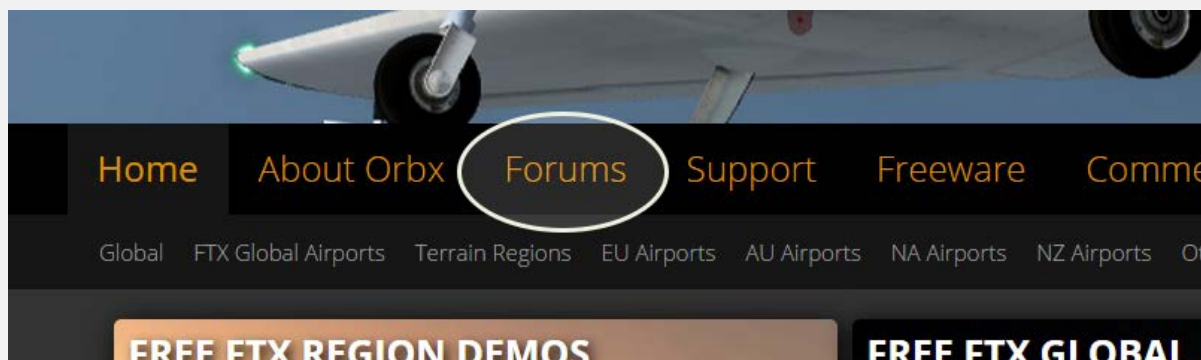
If you use the settings below you will be guaranteed the highest fidelity experience and the best balanced performance.

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 NOR
Texture resolution	7 cm	Sharpest roads and freeways.
Scenery complexity	Extremely Dense	How Orbx designed FTX NOR.
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 NOR or its use, please feel free to register on the forums at 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.

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 NOR. Provided you adhere to the forum terms of use and have a legitimate copy of NOR, 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 ORDER NUMBER from your NOR 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 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!



The FTX NOR Team

Lead Developers

- **Holger Sandmann (Project Manager):** Geospatial data processing including vector roads and railroads, rivers, lakes, and coastlines; vector textures; photoreal areas preparation; custom seasons file; landclass polygon and base files; photoreal glaciers; terrain elevation mesh; moving road traffic; road and railroad extrusion bridges; tunnel portals; Google Earth .kmz file; manual; team management.
- **Eugene Krikunov:** Landclass ground textures including seasonal variations and blendmasks; custom autogen textures; night lighting system on ground textures and road vectors; autogen core files management.
- **Alex Goff:** Photoreal areas processing including seasonal variations, night textures, and autogen placement; custom models for those areas. Vertical obstructions.
- **Neil Hill:** Initial enhancements of airports and airfields; landclass placement; placement of marinas, docks, and fish farms.
- **Jarrad Marshall:** Custom repaints of Dash-8 static aircraft
- **Alex Goff:** Photoreal areas processing, including seasonal variations, night textures, and autogen placement; custom models for those areas. Seasonal variations of landclass ground textures
- **Tore Stranden:** Local data procurement and liaison
- **Misha Cajic:** Object library of terminal buildings and Norwegian flags
- **Neil Hill:** Initial enhancements of all airports, airfields, and seaplane bases; landclass placement.
- **Chris Clack:** Further refinements of all airports and airfields, including scenery objects, terrain shaping, and AI ground movement
- **Edward Boyte:** Initial enhancements of several of the larger airports and airbases
- **Martin Pahnev:** Custom bridge and lighthouse models; object library of "generic" railroad bridges

Additional Orbx Developers

- **Orbx Team:** Orbxlibs objects

Specialist Roles

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

Beta Testing Team

Rob Abernathy, Richard Bui, Sylvain Delepierre, Daniel Fürnkäß, Friedi Gulder, Eberhard Haberkorn, Todd Harrell, John Lovell, Phil Manhart, Martin Reiffer, Frank Schnibben, Tore Stranden, Wolter van der Spoel.

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Photoreal urban and industrial areas sourced and commercially licensed from DigitalGlobe, Inc. Copyright 2014. All rights reserved.

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For the most recent version of the EULA, see orbxdirect.com/eula.

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