



North America

Northern Rockies

USER GUIDE SEPTEMBER 2016

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Thank you!

Orbx would like to thank you for purchasing FTX NA BLUE USA Canada Northern Rockies (FTX NRM). FTX NRM has taken over ten months to produce and builds on the techniques and success of the Pacific Northwest region released in early 2010. FTX NRM also adds some unique features such as seaplanes bases, windfarms, and some of the famous Canadian Rockies landmarks.

The Majestic Northern Rockies

With this third region in our North American series we continue eastward all the way across the Northern Rocky Mountains to the western prairies of Alberta and Montana. NRM seamlessly attaches to the southeastern edge of Pacific Fjords and northeastern boundary of Pacific Northwest. It includes a wide variety of natural landscapes, large urban and agricultural areas, as well as our trademark airport enhancements.

This region covers about 220,000 square miles of western North America comprised of the main stem of the Northern Rocky Mountains but also large areas to the east and west. It spans ~750 miles from Prince George, British Columbia southeast to Butte, Montana, and ~550 miles from Wenatchee, Washington, northeast to Edmonton, Alberta. Major settlements in the region are Prince George, Kamloops, Kelowna, Cranbrook, Banff, Edmonton, Calgary, Missoula, Butte, Coeur d'Alene, and Spokane. More than 430 airports, airstrips, and seaplane bases have been enhanced with terrain edits and placement of custom and generic objects to closely match their real-world counterparts. The following pages will provide more detail of the actual coverage area.

Geography

Some very different types of landscape make up the Northern Rockies coverage area:

1. The majestic Rocky Mountains form the centerpiece of this region and include the world-famous Jasper, Banff, Waterton Lakes, and Glacier National Parks. Large glaciers and icefields, turquoise lakes, unbroken forests, and major tourist destinations abound.
2. West of the Canadian Rockies lie the jagged ridges of the Selkirk, Monashee, Purcell, and Kootenay Mountains, separated by deep valleys that leave little room for settlements, whose airfields "offer" some of the most dangerous approaches in North America.
3. Between Williams Lake and Prince George lies the southeast portion of the vast Interior Plateaus, densely forested with lodepole pine and dotted with countless lakes.
4. East of the Rockies, beyond the Foothills, lie the Prairies, vast agricultural areas with the large urban centers of Edmonton and Calgary.
5. Northeastern Washington State is dominated by the dry Columbia Plateau, horizontal layers of basalt cut into deep channels and tabletop mountains by ancient "megafloods". Some of the dry valley bottom areas reach into southern British Columbia offering the right climate and soils for the vineyards and orchards of the Okanagan Region.
6. Highlights of northern Idaho and Montana within NRM are the Bitterroot Ranges west of Missoula and the lakes and peaks of Glacier National Park and the Flathead Valley.

Climate

The Northern Rockies lie in the rain shadow of the Cascade and Coastal Ranges and thus are generally drier than the coastal areas. Their "continental" climate means both colder winters and hotter summers. Agricultural areas on the Columbia Plateau and on the southern prairies rely on center-pivot irrigation with its typical circular fields. There is, however, also a pocket of "interior rainforest", a wetter region west of the Rockies that reaches from Castlegar north almost to Prince George. Some areas east of the Rockies, including Calgary, are known for their wildly fluctuating winter temperatures due to "Foehn" winds locally known as Chinook. Furthermore, the constant strong winds blowing through the Crowsnest Pass area of southern Alberta has led to the establishment of several large windfarms near Pincher Creek, which we included as custom models complete with their mesmerizing rotating blades.



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 NRM and third party addons.

FLIGHT1 - ULTIMATE TERRAIN X (UTX)

FTX NRM uses a new form of FSX 'Exclude-All' to hide UTX from under the FTX NRM scenery. This means that the transition from UTX to NRM should be seamless as you cross the boundaries.

However, the UTX night lighting cannot be excluded using the FTX 'Exclude-All', so we will prepare some instructions on the FTX Support forums link shown above. For now, disable the UTX night lights when in NRM.

FSADDON - VANCOUVER+

Orbx and FSAddon have signed a cooperative agreement whereby a special version of Vancouver+ called Vancouver+ for FTX will be released soon after FTX NRM is released. FSAddon are kind enough to offer discounts to encourage people to purchase this excellent addon by Holger Sandmann and Jon Patch, which enhances the greater Vancouver area quite substantially. Jon Patch has been a part of the Orbx beta team to ensure compatibility. For more information visit <http://forums.fsaddon.eu/viewforum.php?f=15>

If the Vancouver+ for FTX product update is not yet released when you read this, we recommend you disable your current installed version of V+, since it will conflict with FTX NRM. We envisage that the enhanced FTX-compatible version should be available soon, if not already.

FLIGHT1 - GROUND ENVIRONMENT X (GEX)

GEX is a default FSX texture replacement product and their textures won't appear inside FTX NRM since we use custom landclass textures which are called from within the ORBX folders only. This means you will see GEX outside the FTX NRM boundaries, and our textures as soon as you cross over into NRM. There is nothing to do when flying inside FTX NRM. However, you may want to use FTX Central to switch to the 'Default' region when flying outside NRM with GEX in different parts of North America.

REAL ENVIRONMENT XTREME (REX)

FTX NRM is 100% compatible with REX and you don't need to do anything special to use REX whilst flying over NRM. In fact, most of the Orbx developers and beta testers use REX, and it's an Orbx recommended addon.

THIRD PARTY TERRAIN MESH

Third-party add-on terrain mesh files are compatible as long as they don't provide a higher resolution than 10m and their scenery library position is of lower priority than FTX NRM. The NRM Canadian mesh is compiled as 20m and the US portions as 10m (source data are 24-m GeoBase for Canada and 10-m USGS for the US).

Quick Installation Guide

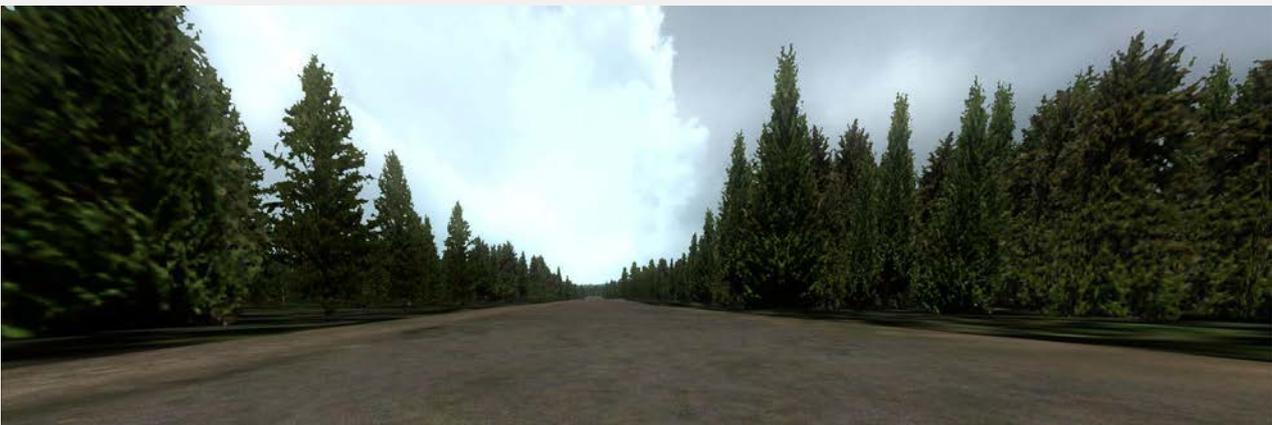
Installing Orbx FTX NRM is all managed by our FTX Central application. This app is responsible for many aspects in maintaining your Orbx installation. Please visit the support forums to learn more.

Once you have purchased NRM 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 NRM and then have FTX Central manage the installation for you once downloaded.

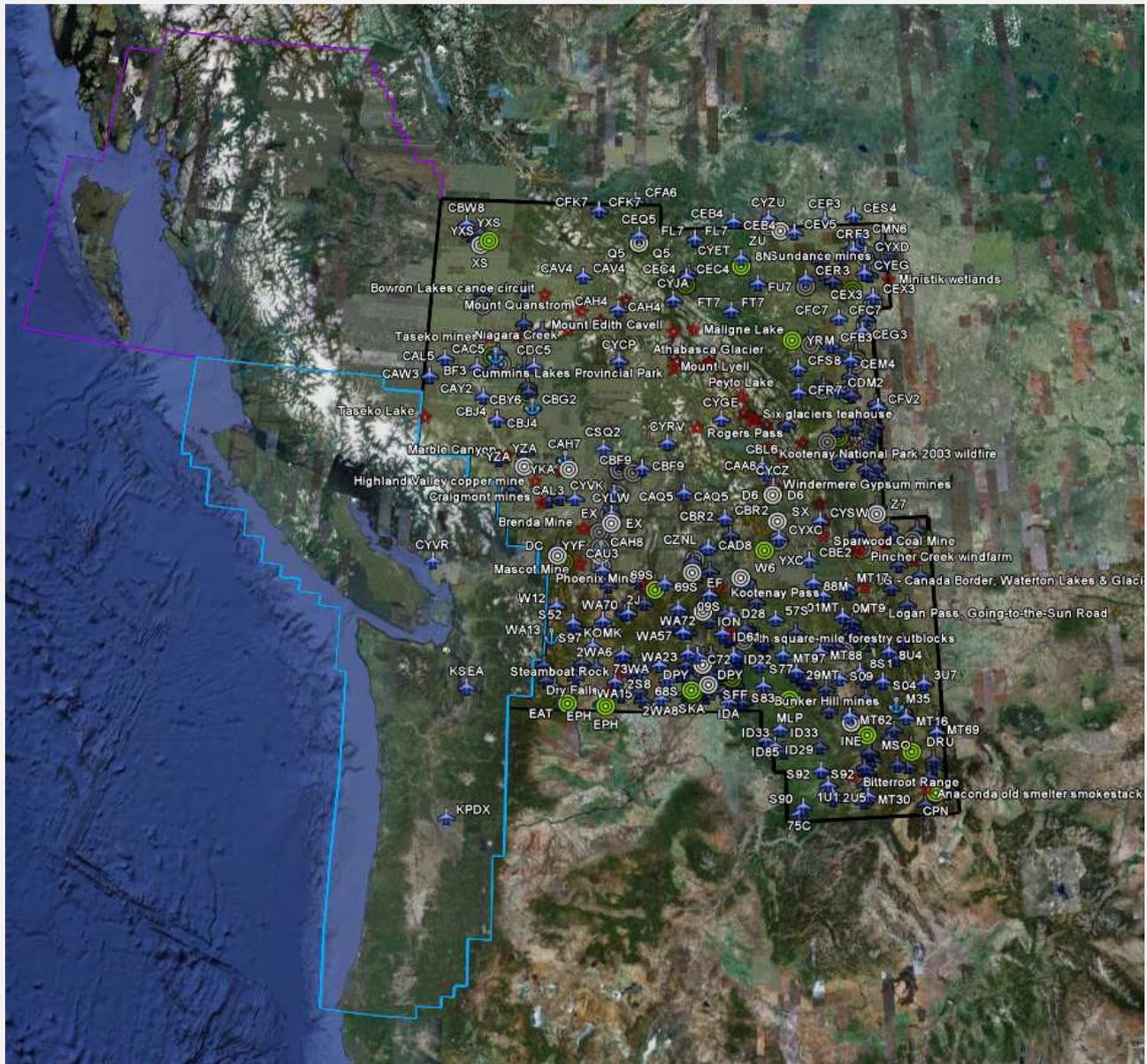
An internet connection is required for FTX Central to validate your license.

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

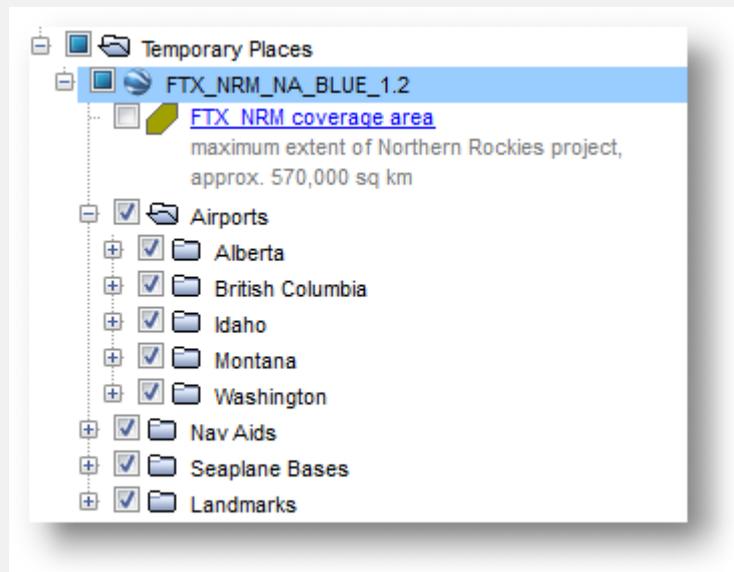
The diagram below shows the extent of the FTX Northern Rockies (NRM) region scenery coverage area. We've also highlighted the outlines of the Orbx FTX Pacific Northwest (PNW) and Pacific Fjords (PFJ) regions which adjoin the east of the NRM region. When these three regions are combined, they offer a staggering 464,322 square miles (or 1.2 million square kilometres) of extremely diverse hand-crafted scenery for North America.



You can view the coverage and features map interactively in Google Earth by loading the FTX NRM Coverage and Features Map.kmz which you'll find in your ORBXUser Documents folder in your FSX/P3D root folder.

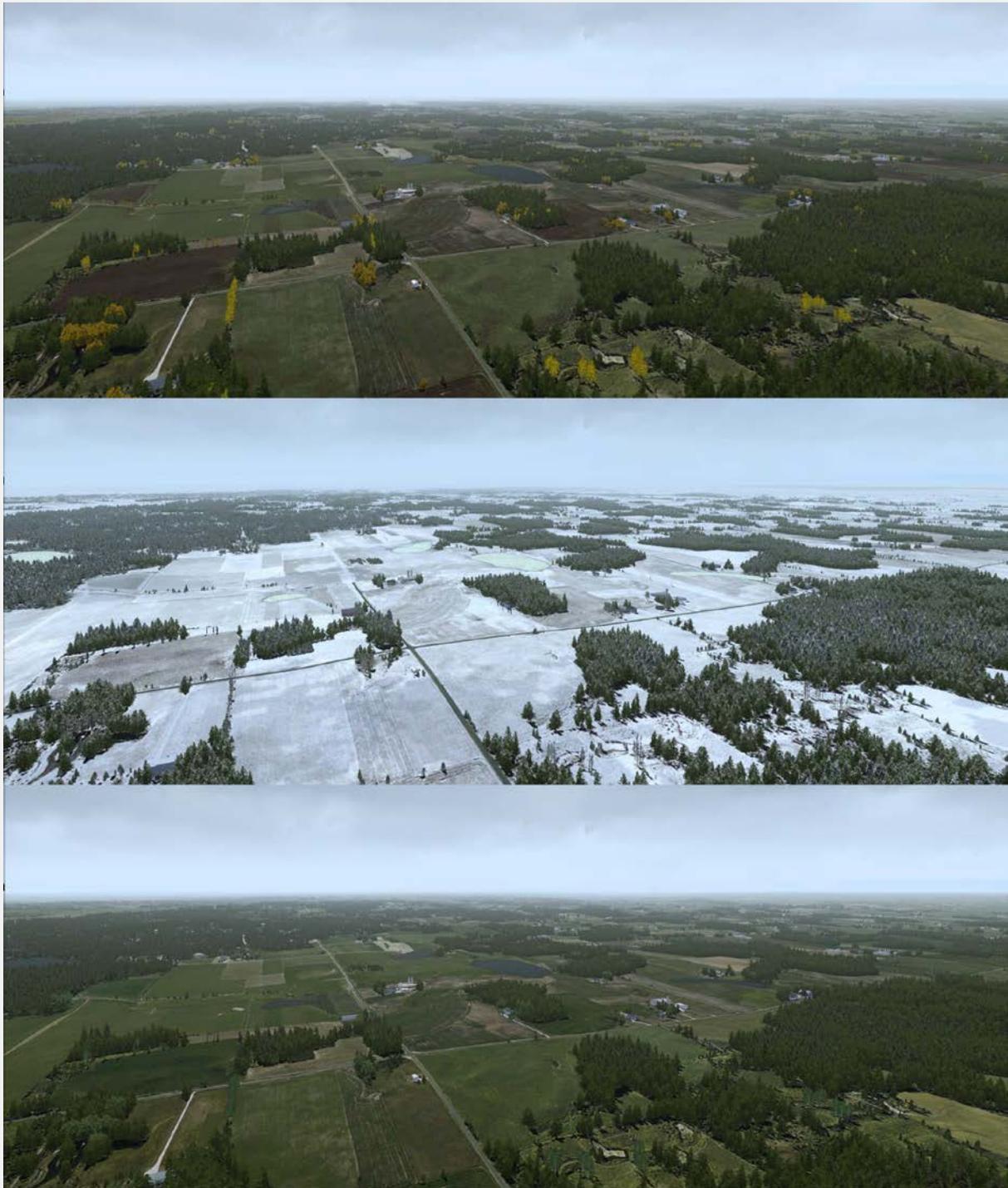
Once loaded into Google Earth, you can select all or some of the features included in the scenery, and the corresponding icons will appear inside the map boundary. You can click on each item on the map for a popup balloon which provides details for that airport or POI.

This is a useful tool to begin to explore the features and points of interest included in FTX NRM.



Seasonal Variations and Lighting

With FTX, we don't just do an area once, we do it eight times, with unique texture coloring across five seasons and distinct unique FTX lighting which comes into its own at dawn, dusk and night. Here's an example of one scene across these variations.





Very few scenery products go to this level of depth in a small area, let alone 220,000 square miles! We are confident you will be absolutely thrilled with the diversity and depth of FTX NRM across all seasons and times of day.

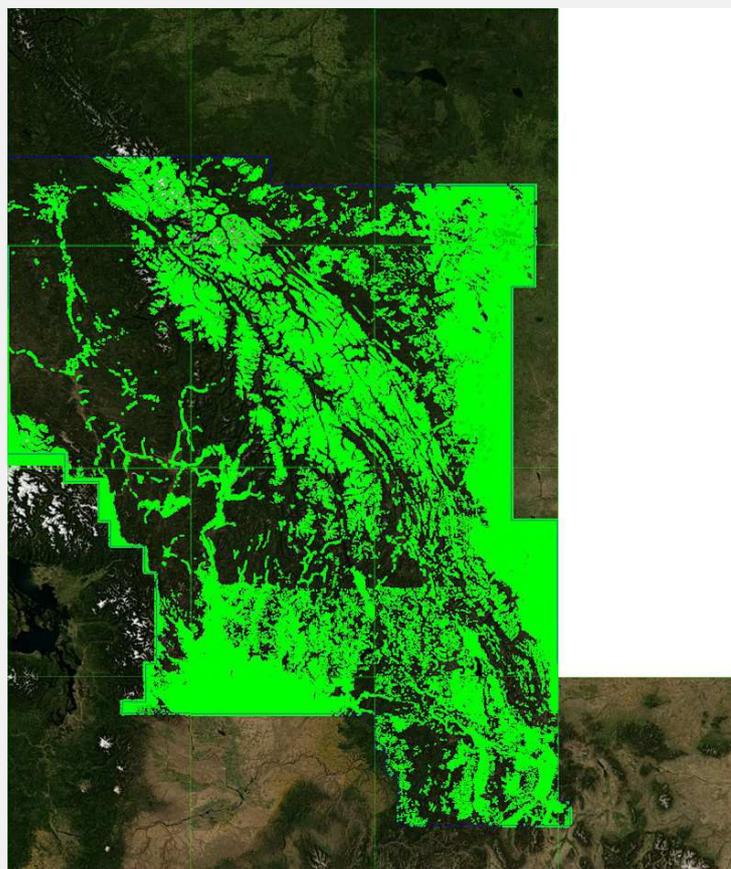
What is Custom Landclass?

Landclass are special files which reside in the scenery layer “pie”, and their role is to tell FSX what type of ground texture to place in any given square kilometer 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 addon landclass products for FSX are created using various data sources and compiled using automated scripts and then manually rectified for obvious errors.

Not so with FTX. The diagram below gives you an idea of the custom landclass which was shipped with FTX NRM. Every single square mile in the green highlighted areas was hand placed by expert landclass developers, 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 kilometer of the region. Eventually entire countries will be covered completely with the FTX custom landclass, and photoreal scenery products consuming thousands of GBs of your hard drives will be a thing of the past.



Quick Reference Simulator Settings

The table below lists in a handy reference the minimum recommended settings required in your simulator to enjoy NRM 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.

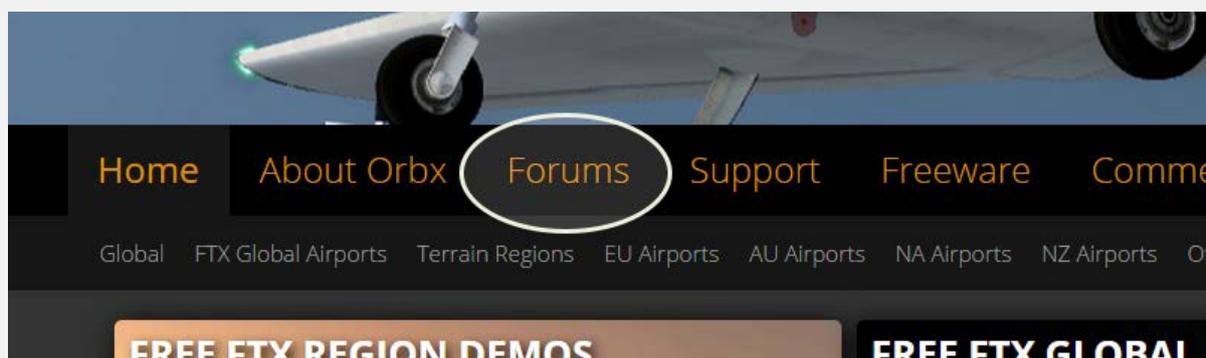
If you use the settings below you will be guaranteed the highest fidelity experience and the best balanced performance.

| 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 NRM |
| Texture resolution | 7 cm | Sharpest roads and freeways. |
| Scenery complexity | Extremely Dense | How Orbx designed FTX NRM. |
| 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 NRM 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 NRM. Provided you adhere to the forum terms of use and have a legitimate copy of NRM, 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 NRM 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 NRM Team

Lead Developers

- **Tim Harris (Project Manager):** All autogen annotation, night lighting and object placement, POIs development, POI scenery object modeling, M-Tiles, team meetings and beta build management
- **Dr Matt Tomkins:** Lead texture artist including all landclass ground textures, some vegetation textures, M-Tiles, lcllookup.bgl mods and overall landclass texture architecture
- **Holger Sandmann:** Geospatial data processing, including vector roads, rivers, coastlines and railways, photoreal mountains and POIs, seasonal boundaries, landclass meshing tiles, elevation mesh, vertical obstructions, terrain.cfg mods, base forest landclass and some autogen annotation
- **Martin Lott** Custom hand-crafted landclass covering nearly the entire region
- **Neil Hill:** Enhancement and correction of all FTX NRM airports and airfields, placement of scenery objects at all airports

Additional Orbx Developers

- **Orbx Team:** Orbxlibs objects
- **Bill Womack:** Custom autogen tree textures
- **Rob Byrne:** Custom landclass
- **Chris Clack:** GA AI traffic for most hard surfaced airports
- **Paul Baumanis:** Autogen Annotation

Specialist Roles

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

Beta Testing Team

Dave Kester, Wolter van der Spoel, Butch Mendoza, Martin Henare, Scott Armstrong, Eberhard Haberkorn, Patrick Scharnowski, Alexander Metzger, Neil Hill, Mike Johnson, Dontay Martin, Paul Baumanis, Ian Routley, Hugh Johnston, Phil Hartman.

End User License Agreement (EULA)

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

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