

100,000 mi² of Atlantic Ocean
Over 700 islands and cays

Brought to you for Microsoft Flight simulator
by Freeflow

We present: FREEFLOW BAHAMAS





I. About Freeflow Bahamas:

Freeflow Bahamas is a FREE scenery addon for Microsoft Flight Simulator: A Century of Flight (FS9) which will transform the Islands of the Bahamas.

Features include:

- A complete replacement of the entire region of the Bahamas and the Turks and Caicos islands!
- Land class scenery which accurately reflects vegetation and population of the region.
- Water class scenery which properly reflects vibrant tropical waters of the Bahamas.
- Completely new ocean coasts, bays, and ponds accurately placed using SRTM water body data and Google Earth.
- Many new highly detailed airports with accurate AFCADs.
- All major roads, highways and bridges.
- Many custom GMax objects such as hotels and airport structures.
- A configuration utility to tailor this scenery to your system and personal preferences.
- Full compatibility with many payware addons (see list at the end).



II. Requirements

In general, if your PC can satisfactorily run Flight Simulator 9, this scenery will work fine. Freeflow Bahamas is not compatible with Flight Simulator X at this time.

The configuration application also requires Microsoft .NET 2.0 runtime available from the [MS download site](#).

Required Downloads:

Some other files are required and need to be downloaded separately:

[Gerrish Grey's Trees library v3](#) While this library says it's for FS2002, it works perfectly in FS2004. Unzip the textures into your main FS9\Texture folder, and the scenery.zip containing trees_0.bgl into your FS9\Scenery\World\Scenery folder (some suggest FS9\Scenery\BASE\Scenery). However, it is important that you have only a single copy of this library installed -please do a search of your FS9 folders for trees_0.bgl and make sure only a single copy is present in either of the two directories described above.

Recommended addons:

While not explicitly required, you'll enjoy this scenery much more with the following addons:

Replacement water textures

The water class included in this package was not designed with the default water textures, thus one of these replacement texture sets should be installed for the water to look it's best: ---[OceanFX 2.0](#) by Johan de Vries is a front-end to install [Ed Truthan's water effects and textures](#) in FS2004. These textures are second to none, and highly recommended. Several packages are derived from these textures which you might find more appealing, and include "morewatr.zip" by various authors compiled by Kevin Rangel or "Water Zone" textures which are slightly darker. An excellent commercially available package called Flight Environment is available from Flight1, and includes much more than just water textures - be sure to check it out!

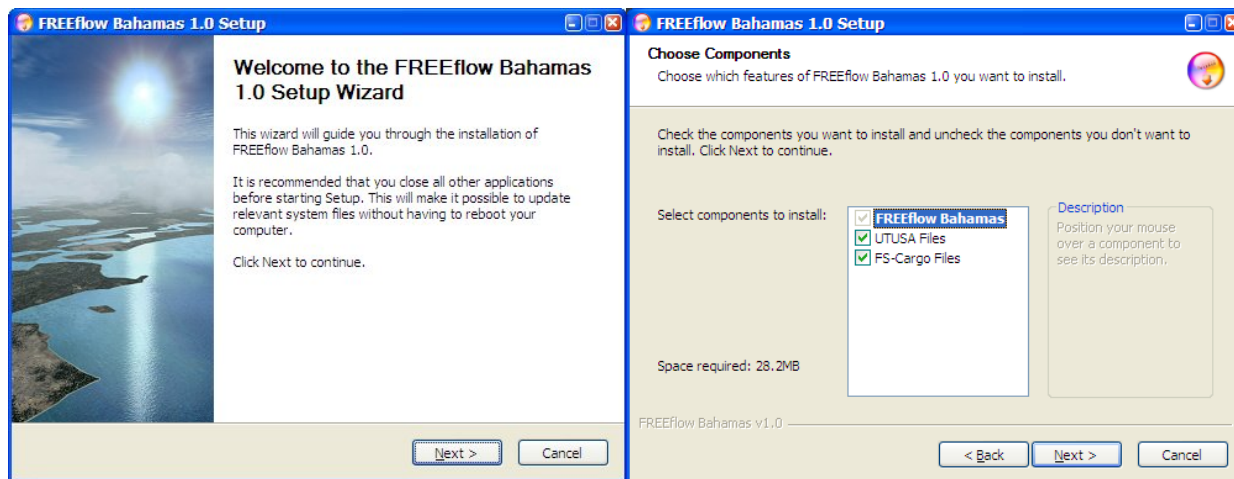
Enhanced water reflection effects

Water reflections are a different set of textures than the water itself. There are many, but the hands-down best (in my opinion of course) is Vilk's Water or "[vater.zip](#)" available at our web site courtesy of the author.



III. Installation

After clicking the installer executable (FFBAv1.0_Install.exe) you will be presented with the screen below. Click next, and after reading and accepting the end user license agreement, you will be prompted with a components selection screen (below right). Owners of Flight1's (Scenery Solutions') Ultimate Terrain USA ***must*** select the UTUSA option for compatibility (you will be prompted to verify ownership). Owners of FSAddon's FS-Cargo can select to install cargo areas for each of our new airports.



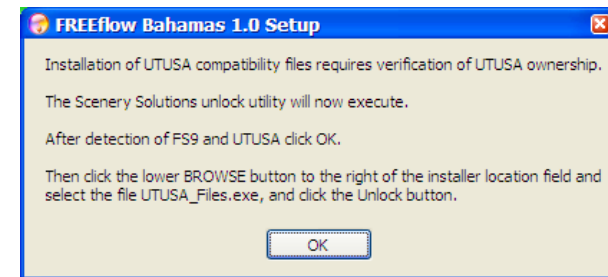
Clicking next will present you with a dialog to choose the installation directory. The installer will attempt to automatically detect your FS9 folder, but you may change this path to reflect your desired install location. Click next to choose a start menu group to install shortcut to, and next again to begin copying files.



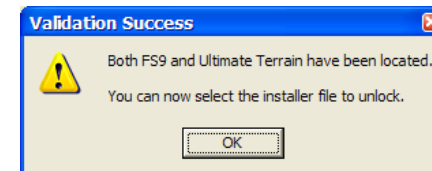
If you selected to install the UTUSA files, you will be prompted with several additional dialogs:

The installer will launch the Scenery Solutions Unlock utility.

Click the OK button.

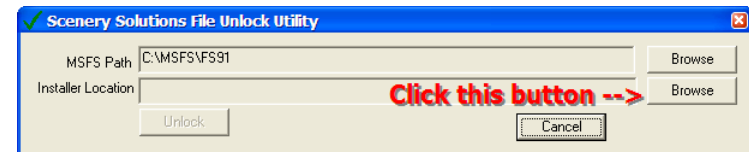


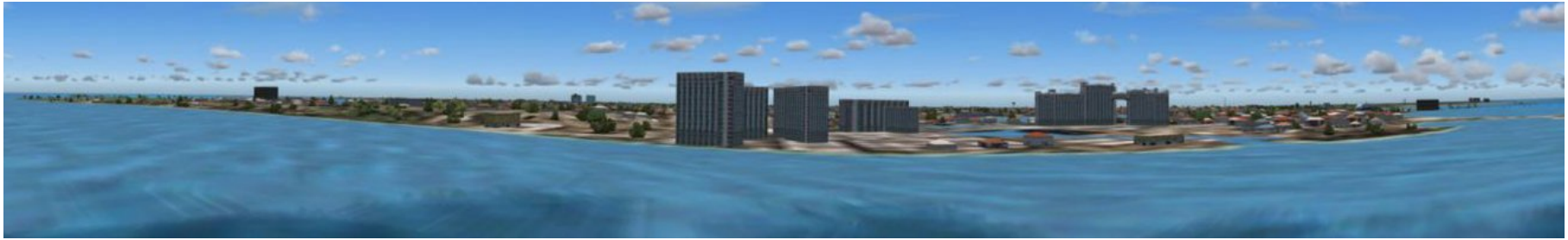
You will receive confirmation if your UTUSA install is valid.



Your path to MSFS should be indicated in the top field.

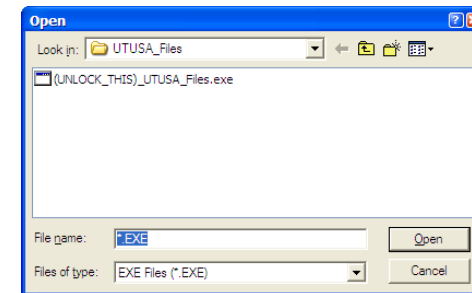
Click the lower Browse button.



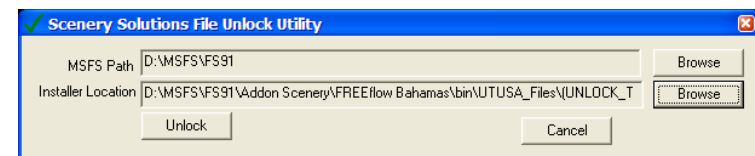


In the dialog box that appear, there should be only one file, with "UNLOCK_THIS" in the file name.

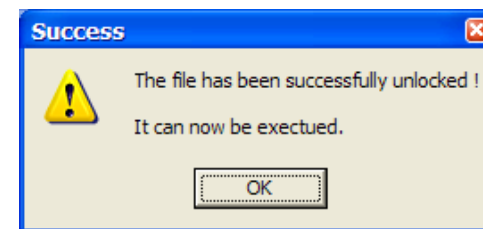
Select that file and click the Open button.



If you own and have properly installed UTUSA, the unlock button will be enabled, click it.

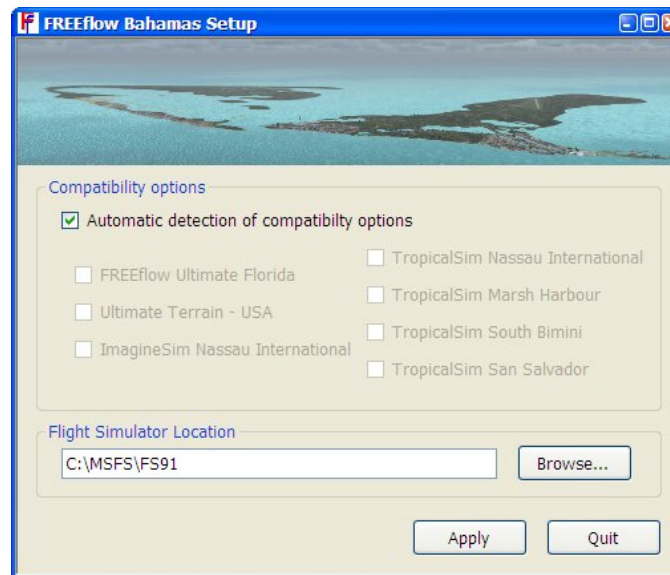


The file will be unlocked and installation will proceed.



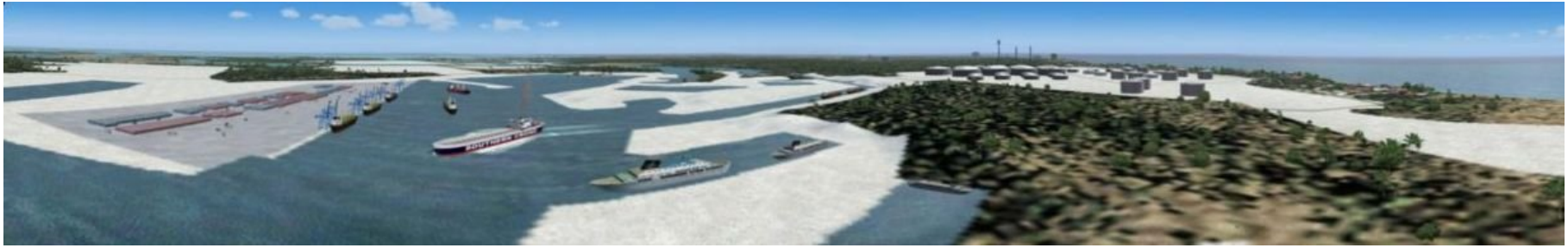


After a successful installation, the Freeflow Bahamas Setup Utility will automatically run. This utility can also be run at any time should you install a new addon - a shortcut has been created in the Freeflow Bahamas group in the start menu.



This utility serves several functions. First, it will inactivate the default FS9 scenery for the Bahamas. Next, it will attempt to automatically detect other payware addons which you may have installed and configure the scenery for compatibility. The detection routine is not very sophisticated, and only looks for registry entries, or for default installations. Should autodetection fail, you can uncheck the automatic detection option, and manually browse to the folders which contain your addons.

Once the scenery has been installed, you need to add two scenery areas to the Flight Simulator scenery library. If you add the Freeflow Bahamas Class and Mesh folder first, followed by the Freeflow Bahamas folder, they will be in the correct prioritization with Bahamas above Class and Mesh. For more information on how to add scenery areas to FS9's library, please visit the [Flying'sCool website](#) for an [excellent tutorial](#). ***You are now ready to explore Freeflow Bahamas!***



IV. Geography of the Bahamas, Turks and Caicos

From [Wikipedia](#), the free encyclopedia:

The Bahamas are a group of about 700 [atolls](#) and [cays](#) in the western [Atlantic Ocean](#), of which only between 30 and 40 are inhabited. The largest of the islands is [Andros Island](#), located 120 miles south-east of Florida. The [Bimini islands](#) are to its northwest. To the North is the island of [Grand Bahama](#), home to the second largest city in the country, [Freeport, Bahamas](#). The island of [Great Abaco](#) is to its east. In the very south is the island of [Great Inagua](#), the second largest island in the country. Other notable islands include [Eleuthera Island](#), [Cat Island, Bahamas](#), [San Salvador Island](#), [Acklins Island](#), [Crooked Island, Bahamas](#), and [Mayaguana](#). [Nassau](#) is the capital and largest city, located on [New Providence](#). The islands have a subtropical climate, moderated by the [Gulf Stream](#).

The islands are surface projections of three oceanic banks, the Little Bahama Bank, the Great Bahama Bank and the westernmost Cay Sal Bank. The highest point is only sixty-three meters above sea level on Cat Island; the island of New Providence, where the capital city of Nassau is located, reaches a maximum elevation of only thirty-seven meters. The land on the Bahamas has a foundation of fossil coral, but much of the rock is oolitic limestone; the stone is derived from the disintegration of coral reefs and seashells. The land is primarily either rocky or mangrove swamp. Low scrub covers much of the surface area. Timber is found in abundance on four of the northern islands: Grand Bahama, Great Abaco, New Providence, and Andros. On some of the southern islands, low-growing tropical hardwood flourishes. Although some soil is very fertile, it is also very thin. Only a few freshwater lakes and just one river, located on Andros Island, are found in the Bahamas.

The Bahamas are an independent nation having gained their independence from Britain. Interestingly, the Queen of England is still the ceremonial head of state.



This project also includes the **Turks and Caicos Islands**.

The two island groups are in the North Atlantic Ocean, southeast of the [Bahamas](#), north of [Hispaniola](#), and 914 km from [Miami](#), at [21°45'N 71°35'W](#). The territory is [geographically](#) part of the [Bahamas](#), but is [politically](#) a separate entity. The Caicos Islands are separated by the Caicos Passage from the closest Bahaman islands, [Mayaguana](#) and [Great Inagua](#).

The eight main islands and more than 20 smaller islands have a total land area of 616.3 km², primarily of low, flat [limestone](#) with extensive [marshes](#) and [mangrove swamps](#). The weather is usually sunny and relatively dry, but suffers frequent [hurricanes](#). The islands have limited natural [fresh water](#) resources; private cisterns collect rainwater for drinking. The primary natural resources are [spiny lobster](#), [conch](#) and other shellfish. The [United Nations](#) Committee on Decolonisation includes the Turks and Caicos Islands on the [United Nations list of Non-Self-Governing Territories](#).

The two distinct island groups are separated by the Turks Passage.

The Turks and Caicos have had a complex political history. They are not part of the Bahamas politically but rather an independently governed body since 1976.



V. General Aviation in the Bahamas

Flying in the Bahamas is typically VFR. A GPS is the most reliable and accurate way to navigate the islands. Landfall in the Bahamas is approximately 60 nautical miles due east of Palm Beach International, KPB, at Grand Bahama Island or if departing Fort Lauderdale one finds Bimini Island approximately 50 nautical miles to the east. With the exception of the few major airports most of the island airports are uncontrolled airspace using the Common Traffic Advisory Frequency, CTAF of 122.8 to announce position and intentions. There are no taxiways so outbound aircraft announce before taking to the runway. Pattern altitude is 1,000 feet above ground level. All traffic patterns are left handed with departing traffic turning left or departing straight out. There are fly-in programs offered at some of the major Florida airports with tutorials on procedures and paperwork. An experienced pilot will lead on these fly-ins to the islands.

Interactive Airport Map at <http://www.bahamas.com/>

<http://www.bahamas.com/bahamas/custompopup.aspx?sectionid=72432>



VI. Credits

Team Freeflow are:

Scott Gridley, Bob Brown, Joe Watson, Harry Gordon, Jim "hornit" Campisi and Toni Hiltunen.

Look for more Freeflow Bahamas addons from new team member Jimmy R. Martin, and our AI shipping addon from Jimmy and Dexter Thomas, in the near future!

The Giants whose shoulders we've stood upon:

Jim Keir for creating and freely sharing Slartibartfast, and Luis Sa for Sbuilder.

Bill Learning for his RWY12 libraries.

The USGS for the SRTM Water Body Data and Google for reference imagery.

Many special thanks to Bahamas resident and pilot Harrington Mallory for invaluable images and consultation.

Last, but never least, our dedicated testers (and [Tradewind Caribbean Airlines](#)):

Rob Abernathy

Rob Diebold

Davino (unkle bino) Edwards

Will Gasser (Uitikon, Switzerland)

Merl Kraemer

JC Martin (TCA 9305)

Jimmy R Martin

W.L. Marks

David "Opa" Marshall

Don Moser

Richard "dolphin" Nathan (TCA2519)

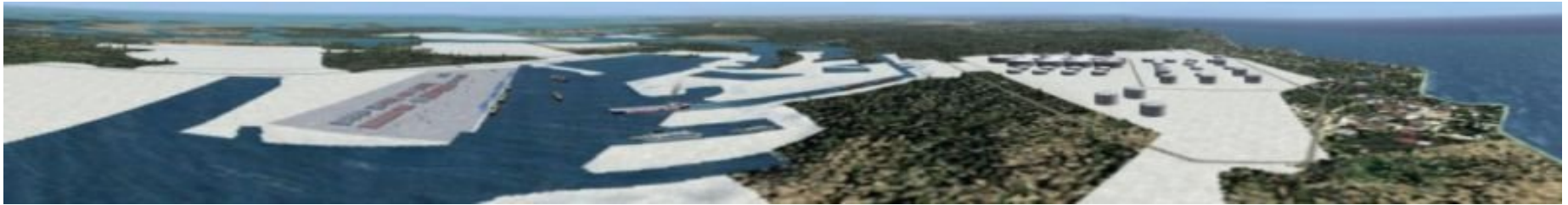
Mike Nowinski

Thomas Perry

Dennis M. Spragg

Ernest L. Taliaferro, Jr.

Richard "Tanganda" Wynn



Appendix A: Freeflow's methodology

We first start by completely inactivating the default FS9 scenery – in most cases it is easier to start from scratch than trying to edit the default. Using a variety of source imagery we create simple black and white bitmaps representing water and land respectively. Then we employ Slartibartfast written by Jim Keir to convert the images to FS9 scenery of just water and shorelines. This scenery is imported into Sbuilder, the excellent scenery design package developed by Luis Sa, and heavily edited. We use calibrated satellite imagery to validate and enhance the scenery. Google maps and Google Earth have become important tools in this respect. Once the land masses are positioned, we generate an accurate land class of the area, and add roads or other important features. We also remove misplaced default objects, and accurately locate airports. This is the base of our scenery package, and we really consider it to be a canvas upon which details can be added. We strongly encourage others to make Freeflow compatible addon scenery – our Bahamas package will be the first released with several addons already ready to go.

We do add some details ourselves, often through collaboration with other designers, and we've been very fortunate to have very talented people join our team during the development of each of these packages. Details we have added include custom models of landmarks, airport buildings and AFCADs, and even animated AI air and sea traffic. Our scenery is often made such that these detailed parts can be easily inactivated for compatibility with more detailed addons or payware.



Appendix B: Compatible addons:

[Flight1 – Ultimate Terrain USA](#)

Ultimate terrain USA by scenery solutions, brought to you by Flight1, contains the Bimini Islands as they are very close to Florida. We worked with Allen Kreisman to ensure our Bahamas scenery would be 100% compatible with UTUSA.

[TropicalSim](#)

Originally FlightSimBrazil, TropicalSim is the designer of the very popular “Fly to Caribe” series of airport sceneries. Through collaboration with Carlos and other TropicalSim members, we have made provisions for compatibility with all of the regional airports offered by TropicalSim.

[Imagine Simulations MYNN](#)

ImagineSim's recently released a fabulous version of Nassau International Airport (MYNN). Cal Lewin was kind enough to provide a developers' copy of this scenery, and we have ensured that our Bahamas Package is 100% compatible with the Imagine Sim's offering.