



STAR EXPLORERS^{5.0}

THE INTERSTELLAR DUNGEON CRAWLER

USER MANUAL

Star Explorers Manual

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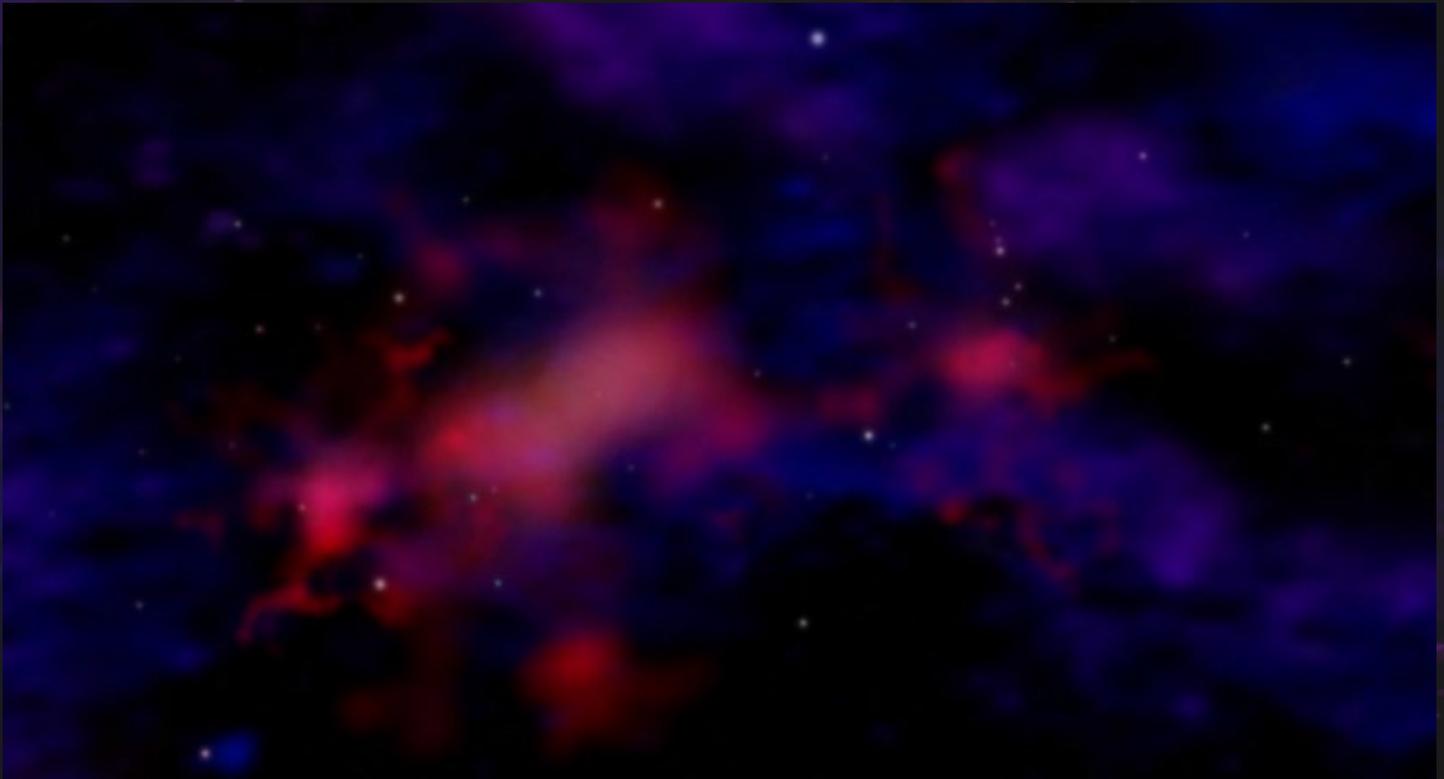
Introduction

Hello and welcome to the world of Star Explorers! Prepare to enter and explore a unique universe of procedurally generated worlds.

Star Explorers puts you in charge of a spaceship, seeking out a new home after Earth is destroyed. The mothership is there to help you and to follow your path through the galaxy.

Finding planets with the right kind of fuel will be your main activity, you will need to confirm the presence of Acknexium crystals before the mothership can risk the long journey from one star sector to another. However, along the way, you are free to discover treasure, explore ancient civilizations, engage in trade with friendly aliens, or combat with not-so-friendly ones, and otherwise experience all the joys and pains of interstellar travel.

Keeping track of your own resources is essential. Fuel, space suit condition, health, ammo, and most important - oxygen - are critical to your success and survival. Some worlds are not suitable for exploration to a beginning star explorer, but after finding some treasure, and upgrading your space suit, you will find more and more worlds to safely - mostly - explore and discover.



Star Explorers generates a new galaxy for each play-through.

Warnings and Suggestions

Star Explorers is the long time project of solo developer Michael Schmidt. It runs on the Acknex engine, made with 3D Game Studio. As such, there may be some compatibility issues with newer operating systems like Windows 10. or 11 During Early Access, several users with Windows 10 were initially unable to run the game, but a work around was discovered. See the “Common Issues” section for more information.

Gameplay Basics

Star Explorers is a fairly straightforward, first person shooter (FPS) game. However, instead of being combat oriented with waves of enemies like many such games, its focus is on exploration and discovery. There are a few features that may require some getting used to for players unfamiliar with its interface.

The Menu and Interface

Before playing Star Explorers, it is a good idea to familiarize yourself with its menu system. Most options are self-explanatory, but here is a basic summary of issues which you should be aware of.

Starting a New Game: Star Explorers creates a new folder for your game. This folder is given the name which you enter into the “New Game” field. Remember to press “enter” after typing your name, or it will not allow you to continue. Before you start a new game, visit the Options Panel to set up your system.



The Main Menu

Loading a Saved Game:

You will need to remember your game’s name when you want to load it. Game names are not case sensitive.

Options: The Options Panel allows you to set up Star Explorers for your system. Remember to visit this before starting a new game, as some options will not be available after a game has been started.

Video Options:

Screen Resolution: Star Explorers was designed to work best in a window 1280 pixels wide. However, since so many users prefer full screen, this has been included as the default setup. For those who prefer, there are options to change the game’s resolution to virtually any dimensions. Some menus and effects may not work correctly when changing from the default, however.

Full Screen and Window: Choose your preference here, and click “Restart.” Full screen offers more immersion, but window mode seems to provide better performance. “Border” allows you to move the game’s position in window mode. (as a compromise use F10 and F11 to toggle a ‘full-screen window’ which also scales in-game menus).

Shadows: Enables real-time shadows, for a more realistic experience. Keeping this on may reduce the frame-rate on older computers.

Bloom, Smooth Pixels, Old School Pixels, Posterize and Dither: These effects can be activated or deactivated at the user’s discretion.

Max Planet Size: Increasing the planet size will increase the time it takes for them to generate, and may also reduce performance, especially on older computers.



The Video Options Menu

Terrain Density: This slider allows you to increase or decrease the amount of rocks, plants and other features found on planet surfaces. Though these objects do not really effect gameplay, having denser environments may make for more unique and unusual landscapes. As will all features, older computers may experience performance drops when more objects appear on-screen, so use with caution.

Audio Options:

Audio Options are fairly self explanatory, but included here for the sake of thoroughness.

Game Volume: This effects the volume of game related sounds – spaceship engines, environmental sounds, laser blasts, etc.



The Controls Menu - assign custom keys here

Music Volume: This only effects the volume of the game’s music. It should be noted that Star Explorers, in addition to generating unique stars, planets and caves on each play-through, also generates its own music in real-time. Each planet will have a different sound track, that is generated based on that planet’s parameters.

Control Options:

The Controls menu allows you to see all the different actions you may perform in the game, and provides a good reference tool that you may choose to access during game-play. It also allows you to rebind certain keys in order to customize the way in which you play Star Explorers. Note: Some keys serve more than one function depending on the context. Customized keys will continue to serve both functions. Note: CUU, CUD, CUR and CUL refer to the up, down, right and left arrow keys.

Invert Y Axis: A player requested this option, so I added it. If you have any recommendations, I am open to hearing them. Check out the contact information at the end of the manual.

Mouse Sensitivity: Make your mouse more or less sensitive with this slider.

Exiting the Game:

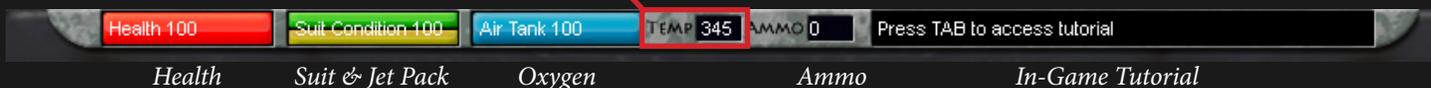
Please use the in-game menu whenever you choose to exit Star Explorers. This allows certain game objects to update their respective files. If you exit the game without using the in-game menu, some features of planets or caves may not reload properly on your next visit.

The In-Game Menu:

Similar to the Main Menu, with certain key differences.

The Status Bar:

Planet Temperature - Note: you should check this against the limits of your space suit (see page 12)



Save Game: Make sure you save early and often. Note, your game will be saved automatically whenever you land on a planet or enter or leave a cave, or return to your spaceship. Saving the game is only available at the ship's console, and only when you are stationary or in orbit of a planet. While on a planet, for instance, you will not be able to save your progress until you return to your ship.

The Status Bar:

The status bar is there to give you a quick overview of your character's basic statistics.

Health: Health is displayed as a red bar. The more red you see, the better. If your health goes below 50%, your character's movement speed will be slowed down proportionally. Buy, find or craft health packs to increase your health. Also, you will heal while aboard your spaceship. It is said that some of the ancient civilizations of the galaxy also had unique ways to help regenerate health.

Suit Condition: The green bar indicating your space suit will take the brunt of any damage you receive while exploring dangerous worlds. Environmental effects like ammonia, acid, heat and cold will effect your suit first, and only effect your health after the suit's condition reaches zero. However, enemy attacks will effect your suit and your health. Jet Pack energy is automatically recharged after jumping - indicated by the yellow bar.

Oxygen: Keep an eye on this, especially when exploring caves. If you run out of oxygen, your health will be effected directly, with no damage to your suit. You can replenish your oxygen in several ways. Returning to your ship will refill oxygen completely, however, standing near the rear entrance of your landing craft (when the hand icon appears) will allow you to replenish oxygen without having to leave a planet. Air tanks are available to craft, buy or find along the way. Again, the ancients have spoken of ways in which oxygen may actually be generated, but the technology has been lost for centuries.

The In-Game Tutorial Panel

A context driven tutorial is available whenever you press the **TAB** key. This key will toggle the tutorial panel on or off. If you are new to the worlds of Star Explorers, press tab often, as it will remind you of your main mission, as well as give you hints on what you can do in a certain situation. These context based hints will change depending on where your character happens to be, and thereby provide an easy reference while playing. For instance, if you are on a planet, the tutorial explains all the different things you can do there. If you are in the ship's computer, it gives basic information about the Star Chart, or flying the ship, etc... Whenever you're not sure what to do, hit **TAB**, and read through the various options.



The ship console allows you to control your spaceship and fire weapons

Ship Movement

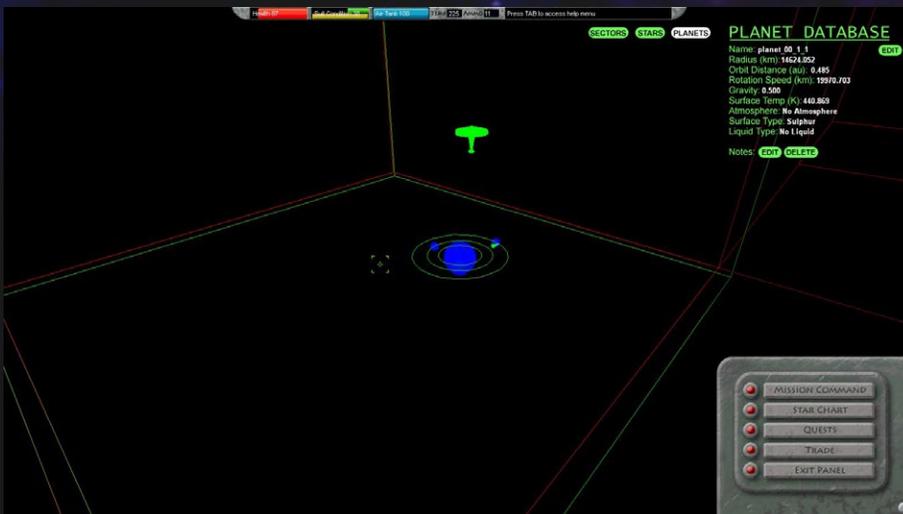
Manual Control: The ship can be controlled in several different ways. The first and most basic is manual control. Use the **WASD keys** as well as the **Arrow keys** to change the direction and position of the ship. Moving manually is possible, but generally not necessary, as there are other faster and more efficient ways to move the ship. However, changing the direction of the ship is necessary when seeking out new star systems to explore.

Combat Mode: Pressing the **Space Bar** will switch from manual to combat mode, and back again. Combat mode allows the mouse to control the direction the ship faces. Using the **left mouse button** will also fire two projectiles from the front of the ship. These are important when the ship is attacked by enemy UFOs. Also, one can destroy asteroids and release valuable minerals from within. These can be captured by flying straight into them. They will appear in your ship's storage unit if there is space available.



Right Click on stars to access the warp command - remember to check fuel levels

Warp: Warping to new star systems is accomplished by **right clicking** on a star (once the cursor turns red) and selecting “Warp to Star” from the context menu. Warping will hurl you through space at vast speeds until you reach your destination. Note: Warping uses up fuel crystals. Take note of how much fuel you have, and how much is required to reach a destination before warping. The ship will not allow you to travel to a star that is too far away. However, it may allow you to reach a star from which you do not have sufficient fuel to return. Be careful out there folks!



The Star Chart allows players to keep track of where they are and where they have already been. Players can change planet and star names, and take detailed notes if they choose to.

Finding the Mothership

Occasionally it is possible to get disoriented in space. One may fail to recognize the positions of the surrounding stars or get confused about the direction of one's craft. Pressing “M” will cause your ship to turn towards the

Orbit: Orbiting planets utilizes the ship's “Solar Engines” which do not use up valuable fuel. This will allow you to explore solar systems freely, without having to return to the mothership for fuel. Note, it is, however, possible to find yourself in a solar system without sufficient fuel to return to the mothership. If this happens, you may find fuel on one of the planets, so don't give up to fast. As a procedurally generated game, however, at this point it is possible to be trapped without fuel. Try to make sure you have sufficient fuel whenever you travel to other star systems.

mothership, wherever it may be. It also orients your craft to be in an 'upward' position when compared to the star chart, as it should help to regain one's bearings.

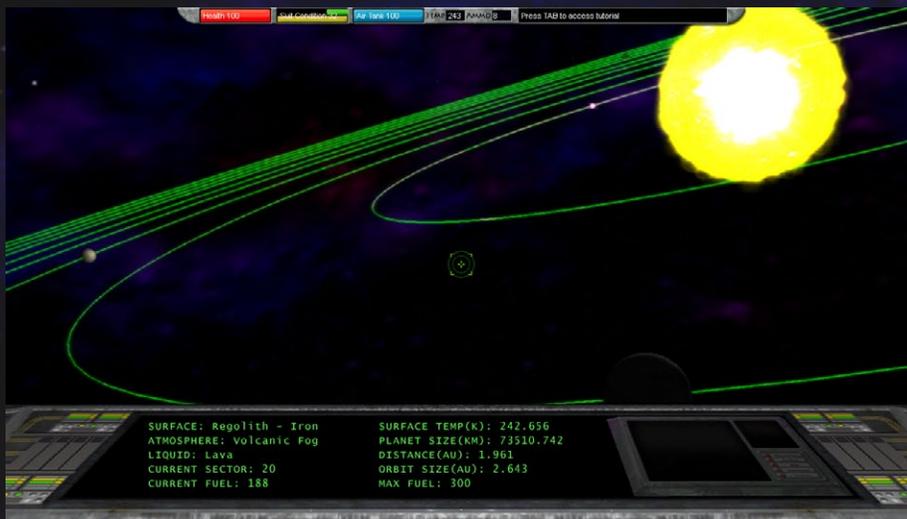
The Ship's Helm

You will begin the game at the ship's helm. This is where you control your spaceship, and also where you access the ship's computer. The small (sometimes flashing) computer panel on the lower right portion of the screen allows you to access the computer, which you will need to do from time to time.

Mission Command: This is where you will receive mission instructions from the mothership. Read these, as they provide the basic knowledge you will need to accomplish the main missions.

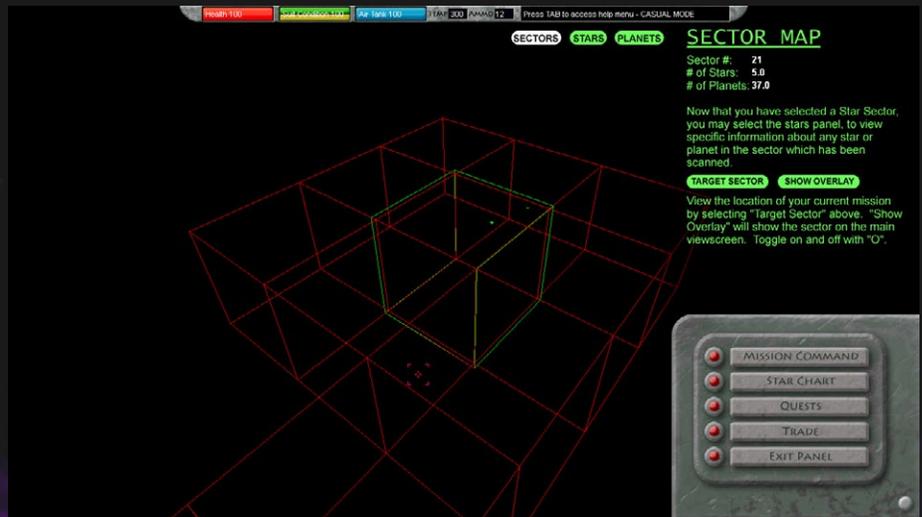
Don't worry, Star Explorers has no cut scenes, or long winded explanations. I tried to be as concise as possible when explaining the requirements of the missions, so make sure you read them. Humanity is depending on you after all!

The Star Chart: This little button allows you to access the Star Chart. It is a database featuring all the stars and planets which you scan throughout the game. Stars will be scanned and added to the database automatically once you warp to them. Planets may be scanned manually, and will automatically be scanned when you choose to orbit them. Note: Stars and planets may be given custom names. Note: You may add special notes to each star system or planet. Use this feature to remind yourself what you have found on a given planet. Perhaps there is a



Press "O" to activate the Overlay - showing sectors, orbits, selected planets and stars

Quests: These quests can only be accessed when near the mothership. Whenever you visit the mothership, make sure you see any quests that are available. If you have the item they are looking for, click on "Submit" and get your reward! Some items will fetch a bigger reward than others. Note: some aliens have quests as well. It is a good policy to see if an alien is aggressive or not before simply attacking them. Friendly aliens may also have items to trade with you.



The Sector Map - in the Star Chart - gives you an overview of sectors visited

cave which you would like to explore further, or a friendly group of aliens who have quests for you to earn money. Keeping detailed notes will help you remember where to go and what you want to do. Notes can be edited and removed as necessary.

The Overlay

From here, you may turn on the overlay, which shows the sector cubes, planet orbits, selected stars and planets as in the image to the left. This overlay helps a lot when trying to navigate all the different star systems. It can also be toggled with the "O" key.

Trade: This section is also available only when near the mothership. Use it to buy and sell items you need. You may also trade with some friendly aliens, so look for them on some life bearing planets.

Exiting the Console:

Some games keep you locked into your spaceship console ... not Star Explorers! Star Explorers is all about exploration, and therefore allows you to leave your ship's console, and indeed the ship itself, when its' time to explore. Press "E" to leave the ship's console and explore your very own spaceship. Use **WASD** and the mouse to direct your character around the ship. When you approach the console, press "E" to engage with the ship controls again.



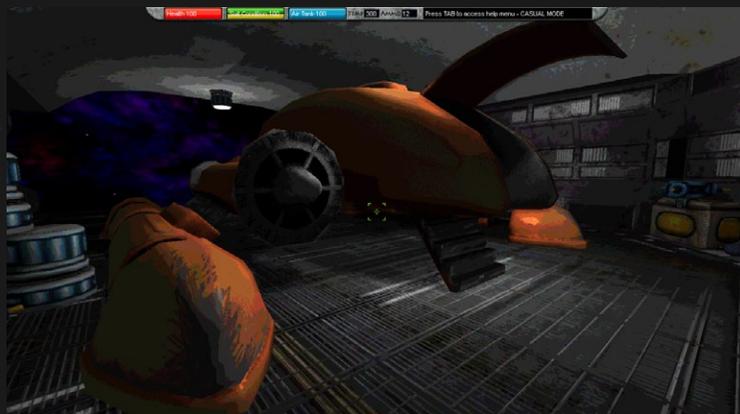
Your spaceship as seen when you are not engaged with the console



The Storage Room in all its glory

Your backpack and ship storage start off with fairly limited room for storage. However, you will be able to find or purchase upgrades for these as you progress in the game. Each can be upgraded twice, to allow up to three times as much storage as you begin with.

Hangar Bay: Towards the back of your ship is the hangar bay. When you are in orbit around a planet, you will head to the hangar in order to actually land on the planet. Note: Many planets have surface hazards which may



The Hangar Bay

damage your space suit or health if you land on them. The ship's computer will warn you when this is the case. The main issue you might face is the planet's temperature. Check your space suit by pressing "I" to access your inventory. Check the space suit in the upper left corner, and look at the high and low temperature limits. You may safely land on most planets with a temperature in between those two values. However, there are other environmental hazards to consider as well. Read about them in the next section about Exploration.



After orbiting a planet, check the data before landing on it, some planets are dangerous

liquid types, Water, Ammonia, Methane, Mercury, Sulphuric Acid and Lava. All but lava may support their own unique forms of life. However, just because there are aliens who can thrive in sulphuric acid, that doesn't mean you can. Your space suit starts with no protection against most of these liquids, and you may take damage if you become in such liquids (especially lava).

However, some worlds, despite containing dangerous amounts of toxic chemicals, may be otherwise safe to explore, depending on the temperature, as long as you do not step into the liquid itself. A lava world, for instance, may be within your suit's temperature range. As long as you do not step into the lava, you are free to explore that world. Water and Methane do not damage your suit, but make sure you double check the temperatures, Methane remains liquid at much lower temperatures than water!



Liquids of all kinds can support different kinds of alien life

Temperature:

As mentioned earlier, temperature is a huge factor in a planet's suitability toward exploration. The suit you start the game with allows for a maximum temperature of 400 K (K stands for Kelvin scale) and down to about 200 K. Landing on planets above or below these amounts will cause your suit and eventually your character, to take damage until your character dies, or gets back to the spaceship.

Exploration

Planets: Landing on planets is what Star Explorers is all about. Not all planets are suitable to be explored right away though. Do your research before landing on a planet, especially if your ship's computer tells you there are surface hazards.

Liquids and Life: Life bearing worlds must have some kind of liquid. In the Star Explorers universe, there are Six main

Vaporous Worlds: Some worlds are too hot to maintain liquids on their surfaces. In these cases, the liquid will vaporize and form a fog around the planet. Much like liquid worlds, vapor worlds can be explored in some cases. Check the temperature first, if it's within range, check what kind of vapor you're dealing with. If it's water vapor or methane, you should be safe. If it's mercury, ammonia or sulphuric acid, be careful. You can find upgrades to your space suit that will eventually allow you to explore these worlds, but it is safer to avoid them when you are getting started.

Frozen Wastes: Some planets orbit small, cold stars, or are simply too far away from their star to stay warm enough to support liquids. These frozen wastes are cold, and may require upgrading your space suit to explore safely. However, as long as your suit can handle the temperature, they should be otherwise safe to land on.

Life Forms: On liquid bearing planets, and some vapor planets, you



Alien life forms are generated when conditions are right

may find various kinds of alien life thriving. Plants, trees, grasses and animal like life forms can be found on these worlds. These alien animals sometimes are aggressive and dangerous, but sometimes weak and frightened by intruders. Be careful of these creatures, as you don't know how they will respond to an alien visitor (you).

Caves and Ruins: Many planets contain cave systems to explore. This is where you should look for Acknexium fuel crystals. However, there are a number of other crystals, ores and other things you might find underground. Sometimes aliens hide

storage caches in these various cave systems, and encountering these can be very helpful. Keep an eye on your oxygen levels whenever you enter a cave, and try to have an extra oxygen tank handy, just in case you get lost.



The map tool helps you to keep track of things

The Map Tool: When you land on a planet, by default you will be holding your mapping tool. This provides a top down overview of your surrounding area. A green circle will appear over your landing craft. If you venture away from your craft, that circle will turn into an arrow, pointing in the direction of the lander, so if you need to get back in a hurry, check your map tool! The map tool will also highlight cave entrances with a red marker. Once you've entered a cave, it's marker will turn blue, so you'll know which caves you've been in and which you have not. You can also place custom markers that are yellow, to highlight any important discoveries.

Planets are fairly small in Star Explorers, but they are circumnavigable, so you may actually walk around the entire planet, in a short period of time. This can get confusing, but the map tool always makes it easy to find your landing shuttle, pointing you in the most direct route possible. Press "B" to activate your shuttle's beacon. This will shine a beam of light that will also help you identify the direction to the shuttle. Remember, you can refill your oxygen tank by approaching the shuttle's doors, and waiting while the hand icon appears. Press "E" to enter the shuttle and return to your ship.

Weapons

There are four different kinds of weapons in Star Explorers. There are many different variations of each weapon type throughout the game, but each has roughly similar properties. Each is dealt with here briefly.



Laser Pistol

Laser Pistol: You start the game with a basic laser pistol. It uses pistol ammo, and has a fixed cartridge size, fire rate, and damage. Other pistols will have different statistics, so if you find a pistol that looks similar to yours, don't assume it's the same. It may do more, or less, damage, and have other differences as well. Usually the price is a good way to determine which weapon is superior.

Laser Rifle: Rifles are larger than pistols and use rifle ammo. They do about the same amount of damage as pistols, but their fire rate is much higher. Find, buy or craft a laser rifle as soon as possible, as they offer protection far superior to the pistol.



Laser Rifle



Rocket Launcher: Rocket launchers are rare, and highly prized. They are effective at taking out multiple targets with one launch, as their damage has a ranged effect. They are also especially useful in removing certain barriers that occasionally block some of the many caves you will encounter. Take note of caves that have these impassible barriers, so you can come back to them after getting a rocket launcher!

Sonic Cannon: The sonic cannon is a deadly and rare weapon. Like the rocket launcher, it can effect more than one enemy at a time. However, due to the unique nature of this weapon's construction, hitting an object will not stop the wave produced by the cannon. It can go through barriers and walls, without any reduction in the damage it causes. Ammunition is rare and limited, so use it sparingly.



Inventory, Trade and Upgrades

Throughout your exploration of the galaxy, you will discover many items and materials to help you on your quest. Pressing "I" will open your inventory. Also, when you encounter a cache, your inventory will open along with it, so you can exchange items. You can buy and sell items at the mothership, and with some of the friendlier aliens you may encounter.

ARMOR	WEAPONS	DETAILS	
BACKPACK		Suit: Basic Space Suit Condition: 73 Deflect: 18 Temp High: 479 Low: 189 Radiation: 7 Base: 33 Mercury: 7 Acid: 22 [UNEQUIP] [DROP ITEM]	
Quants (Q): 2738			

Space Suit: One very important part of the game is your space suit. On many occasions, your suit is the only thing that stands between you and a painful death. You can upgrade your suit when you find or purchase one of the many armor upgrades scattered throughout the galaxy, symbolized by a shield design. Opening your inventory will allow you to see the items you've collected. "Use" the armor upgrade to apply it to your currently equipped space suit. There is no way to remove an upgrade once it has been applied. This is also the same method used to add ammunition to your belt, refill your oxygen tank, and add fuel to your spaceship.

IMPORTANT: Check the high and low temperatures on your space suit, and compare to planet before landing! Star Explorers uses the Kelvin (K) temperature scale.

On the left you can see the inventory panel with the player's space suit selected. Note the various parameters of the suit. **Condition** is the percentage of protection it has remaining, in this case the suit is almost fully depleted. **Deflect** is the amount of damage the suit will absorb from physical attacks. **Temp High/Low** is the range in which you will not take any damage from temperature - keep an eye on this, and make sure your suit is in the right range before landing on a planet! **Radiation, Base, Mercury and Acid** are all environmental hazards you will face. Your suit will take damage from these, but if you upgrade, you will take less dam-

age than normal. For instance, the suit depicted has 33 in the Base category. This means that the suit will only take 77% of the damage caused by ammonia. (Ammonia is a base, as opposed to an acid ... see you're learning science!) As you upgrade your suit more, it will take less and less damage from these hazards, to the point that it has 100% protection. This helps when exploring certain worlds, especially those with toxic vapors like Sulphuric Acid or Ammonia. It will also allow you to fully submerge in these liquids, expanding your range of exploration.

Crafting

Blueprints can be found or purchased throughout the Star Explorers universe. Getting a blueprint is the first step in crafting items.

Materials: Once you've found a blueprint, click on "use" in the inventory panel in order to see what it makes and what you'll need to make it. It will provide a list of required materials and the amount of each needed to craft the item. Some materials like ores and crystals are relatively easy to find. Others, like alien technology, are more challenging. It is said that some ancient structures, scattered through the galaxy, contain blueprints to rare and wonderful items.



The Crafting Process: Seek out the required materials, and gather them in your inventory. Once you have all the requirements, you may craft an item by clicking "build." Make sure you have room in your



The Blueprint Menu

The Mothership

You can board the Mothership Altair once you have completed the first quest. Prior to this, you can still interact with the mothership, buying, selling and accepting quests via your ship's helm computer. However, once you complete the first quest for Acknexium, you may dock your ship and enter the mothership via the airlock. Onboard the mothership you will find a large number of other humans to interact with, buy and sell and accept even more quests!

There are three shops that sell weapons, space suits and ship parts/fuel.

Sirius Space Suits: Suit Repair kits can be found here as well as armor upgrades and upgrades for your backpack. This is one of the most important shops in the game so make sure you visit frequently.

Orion Weapons and Ammo: Get new and better weapons, and stock up on ammo here.

Polaris Space Ship Parts: Upgrade your ship's star chart, buy repair kits and increase your storage once you've saved up enough quants.

Also, don't forget to stock up on coffee while you're there!



The Mothership Altair interior

Common Issues

Windows 10 Issues: Windows 10 has introduced new security features which may prevent Star Explorers from running properly. There are a few known potential fixes for this issue which will be outlined here.

Installation Folder: If the game installs to your Program Files directory, that may prevent the game from writing saved games to disk. When installing the game, you can direct it to install it into a different directory.

Data Execution Prevention: In some cases, the problem was with how the game interacted with the users system. The most common example being the computer's DEP settings.

Here is the way to fix this issue:

Check how the DEP (data execution prevention) is set in your Windows configuration. Go to My Computer / Properties / Advanced / Performance / Settings / Data Execution Prevention, and make sure that it's in its default setting ("For essential Windows programs and services only"). A wrong DEP setting prevents on-the-fly compiling lite-C or C-Script source code.

I cannot guarantee that this will work in every situation or configuration, but if you do experience trouble running the game, please feel free to reach out to me with your problem. I will do everything in my power to help you get things running.

Custom Folder: Once you have installed Star Explorers, you can opt to create a custom save folder. Normally you should not have to do this. However, you may want to have your game save to a custom folder of your choosing instead of the default AppData folder. To choose a custom folder, go to your game's installation folder and find the "Custom Path" folder. Inside there is a text file with instructions on how to set up a custom save folder.

Crashes and Bugs: Any piece of software may have unknown bugs. These may be rare occurrences that never came up during testing, or may be due to interacting with untested hardware. As a solo developer with a procedurally generated game, the number of different conditions and changing variables offers a uniquely vast array of opportunities for bugs to hide and remain undetected for long periods of time. I hope you will report any bugs or crashes you do encounter. See the Contact section below for more details. It may be that your report could help fix an issue that many players are experiencing, each new piece of information helps the developer track down, reproduce and ultimately fix a bug.

Thank You!

Thank you for playing Star Explorers! I truly hope you have enjoyed the experience. If so, please consider writing a review of the game on the store page, and share it with your friends. If not, I hope you will use the contact information provided to explain why your experience was less than ideal. I plan to continue working on the game, fixing any bugs that are encountered, and perhaps adding new features as time and resources permit. Perhaps, if you provide specific feedback, I can use it to improve the game for everyone.

Contact Information

For feedback, questions or concerns, please contact Michael Schmidt at michael@schmidtworkshops.com

