

Spiritus Astrum ALPHA Version [B8] vs. 1.0.1

Phoenix Game Development

Documentation

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Introduction:

Spiritus Astrum is a persistent, open world exploration and survival/crafting game.

Players can explore planets, asteroids, and star systems.

From the ground at your feet to the furthest stellar depths, everything is free to explore.

Spiritus Astrum can be played as a single player adventure, or players can cooperate and explore together online.

Startup Scene:

Choose “Multiplayer” to connect to the Master server for a multiplayer game.

Multiplayer games allow players to interact and explore, craft, etc, with other players in a persistent, open world. This is the way Spiritus Astrum is intended to be played.

Choose “Singleplayer” to start a local server and play a single player game.

This can also be used for LAN games.

Choose “Custom” to enter the Server IP and Port settings manually.

This can be used to connect to a custom internet server.

Start:

Enter your Avatar name and password, and click start to start a new game, or quit to quit. View password removes the asterisks from the password field.

In order to start a game, a character must first be created.

In Spiritus Astrum, a player may have as many characters as they wish, however the game features permadeath, so once a character dies, they are gone for good!

In order to start a new game of Spiritus Astrum, the “Avatar” and “Character” options must be configured.

Avatar:

Enter an Avatar name and a password in the first two fields.

View password removes the asterisks from the password field.

Use the “<” and “>” buttons to change the model. There are six preset models that can be chosen.

The skin tone slider allows the skin tone of the selected model to be adjusted.

Once the desired character settings are chosen, click “Create” to create the character on the server.

“Edit” will allow changes to be made to the character model and skin tone.

“Delete” will permanently delete the character.

Character:

After creating the character, their starting traits and backstory need to be chosen.

Choose the desired options and traits from the drop down lists, or choose “Randomise” at the bottom of the screen, then click “Save” to save your choices.

These choices can affect gameplay, so choose wisely!

Server:

This menu is used to set and test the server options.

If the player has chosen “Single player” or “Multiplayer” at the previous screen, these options should be set automatically, no alterations should be needed.

IP: The IP address of the server to connect to. Enter 127.0.0.1 to connect to a local server (Running on the same machine).

Port: The port to connect to. Spiritus Astrum uses port 7734. This may need to be forwarded on your router if you are having connection issues.

The test button allows the Server IP and port to be tested. The display will show the results of a successful or unsuccessful test.

“Save” allows any changes to be saved, however, if the user selects “Single player” or “multiplayer” the IP and port will be overwritten. Choose “Custom” to load the previously saved settings.

“Start Local Server/Stop Local Server”: Allows the local server to be started and stopped manually.

The local server is a separate console application that runs a Spiritus Astrum server on a players local machine.

For licensing reasons, the local server uses sqllite instead of mySQL for database storage, and so it cannot handle the same number of concurrent users or data traffic, however the player server is intended to be used for small numbers of players.

Graphics:

Allows the games basic graphics settings to be chosen.

The options that can be customised here include resolution, window mode, and desired framerate.

Quit:

Quits the game

Controls:

Avatar:

Left Click: Use Current Object

Right Click: Combine/Use Selected object

Middle Click: Highlight Usable items/Reset Zoom

Middle Scroll: Zoom In/Out

“ESC”: Display MPC

"F1": Toggle Movement when in MPC

"F3": Toggle Ansel

“F5”: Save

"F5": Toggle Console Window

"F6": Toggle Display Output
"F7": Toggle Console Window

"1-6": Select/Deselect Items from Inventory
“-” Reload
"0": Toggle Weapon/Item Mode
"T": Toggle Flashlight
"I": Toggle Inventory
"O": Drop Item
"U": Select / Deselect Item from Inventory
"C": Toggle Wrist Computer
"X": Chat to user
"@": Toggle Console
"P" (Obsolete: "Y"): Respond to AI dialog
"V": Switch to VR Mode
"G": Display Proximity Radar
"N": Enter/Leave Vehicle
"M": Place Marker
"L": Place Claim Marker
"B": Toggle Gravity Boots
"J": Toggle JetPack (Press "R" to move UP and "F" to move DOWN)
"K": Toggle Rebreather.
"/": Toggle AI Command Menu

Shuttle:

Press "N" when close to a shuttle or other vehicle to enter it, press again to leave.

"R"/"Keypad1": MOVE UP
"F"/"Keypad3": MOVE DOWN
"T"/"Keypad+": MOVE FORWARD
"G"/"Keypad-" MOVE BACK
"Y"/"Keypad ENTER": Fire Main Engine
"B"/"Keypad0": Decelerate
"W"/"Keypad8": ROTATE FORWARD
"S"/"Keypad2": ROTATE BACK
"A"/"Keypad4": ROTATE LEFT
"D"/"Keypad6": ROTATE RIGHT
"Q"/"Keypad7": PIVOT LEFT
"E"/"Keypad9": PIVOT RIGHT
"C"/"Keypad PERIOD": Center Camera
"Keypad5": Reset Rotation
"RETURN": Fire a Missile

"Insert": Raise/Lower Wings

"PageUp": Open/Close Canopy

"PageDown": Open/Close Rear Door

"Home": When close to a hanger/docking port, press to dock.

"End": Enable/Disable Precision Flight mode (Automatically compensates for gravity and reduces power of thrusters, useful for landing, docking, etc).

"Delete": Turn ON/OFF Shuttle Headlights

Rover:

Press "N" when close to a rover or other vehicle to enter it, press again to leave.

"W" accelerates

"S" Decelerates

"A" Steer left

"D" Steer right

"SPACE" applies the brake

"DELETE" Turns ON/OFF the vehicles headlights.

Main Screen:

MPC (Multi-Purpose Computer)

MAIN

Spawn Shuttle:

Spawn the Vanguard's shuttle close to the player.

This is a debug only feature, expect it to be removed in future.

Spawn Rover:

Spawn the Vanguard's rover close to the player.

This is a debug only feature, expect it to be removed in future.

Spawn Companion:

Spawn the players Companion (Follower) close to the player.

This is a debug only feature, expect it to be removed in future.

Report a bug:

Use this menu to report a bug in Spiritus Astrum.

The Title must not be blank.

Please try to be as descriptive as possible.

Display:

This enables and disables the information display at the right of the screen.

This can be disabled for immersion.

This information is also available in the "INFO" screen of the MPC.

The display can also be enabled/disabled by pressing F6.

Console:

This enables and disables the Console display at the top left of the screen.

This can be disabled for immersion.

This information is also available in the "DATA>CONSOLE" screen of the MPC.

The display can also be enabled/disabled by pressing F7.

GFX Options:

Vegetation:

Vegetation Density: determines the density of ground cover on alien and earthlike worlds in Spiritus Astrum. This has a significant affect on framerate, even a very slight reduction in density can substantially increase performance.

Falloff Distance: This determines the distance that the falloff begins.

Falloff power: This determines how aggressively the vegetation density is reduced over

distance.

Fade Distance: This determines the distance at which the density fades from view.

Other:

Cubemap Resolution: This is the resolution of the cubemap, or skybox, that is baked into the atmosphere background when the player lands on planets with an atmosphere.

Shadow Distance: The distance that shadows are rendered.

Ground Cover Distance: The distance that procedural objects, including trees, plants, debris, etc, are rendered.

Low, Med, High: These are presets to be used for quickly adjusting the performance of Spiritus Astrum for Different Systems.

Back: Returns to the Main Menu.

Save: Save and apply the current configuration.

SIM Options:

Mute All Audio: Mutes all audio in Spiritus Astrum.

Background Highlight: Displays a grey background around all

Move MPC Automatically: When enabled, automatically moves the MPC on the screen. during certain actions (Such as hacking, or crafting). When disabled, the MPC will not be moved.

Enable AI Voices: This enables a text to speech option for all AI dialog (Such as Crew Dialog, Companion Dialog, etc). This requires TTS voices to be downloaded and installed on your system.

Save:

Saves the game without quitting.

This is a debug only feature, expect it to be removed in future.

Spiritus Astrum is designed to be played without the ability to manually save.

Quit:

Quits the game without saving.

This is a debug only feature, expect it to be removed in future.

Spiritus Astrum is designed to be played with an autosave on quit.

Save And Quit:

Saves the game and quits.

INVTRY (Inventory)

Displays all items that the player has equipped (In one of their six available slots) and all items that the player has in their bulk inventory.

The players item slots are visible at the top of the display.

The first two slots (Marked with an "L") are "Large" slots, any item (Large or Small) can be equipped here.

The remaining four slots (Marked with an "S" are "Small" slots, only small items can be equipped here.

Clicking on an item slot displays information on that item in the window next to the equipped item display.

Below the equipped item display is the bulk inventory display.

This lists all of the items that the player has in their inventory, including their quantity (“QTY”) cost (CST) and weight (“WGT”).

The player can scroll through this select, and select items from here by LEFT CLICKING.

At the bottom of the bulk inventory display, there are several buttons:

EQUIP: Allows an item to be moved from the bulk inventory to the equipped items slots.

SELECT the item by left clicking it in the inventory menu, and then select a slot by left clicking on a slot, then click EQUIP to equip the item.

Make sure that the item can fit in the selected slot (Small or Large).

DEEQUIP: Allows an item to be moved from the equipped items slots to the bulk inventory.

SELECT the item by left clicking it in the equipped items slots and then click DEEQUIP to deequip the item.

COMB: (Combine) allows items to be combined within the inventory itself (Such as ammunition with a weapon, etc).

SELECT the first item by left clicking, then select the second item, and click COMB.

Note that when combining Ammo with a weapon, the ammo must be selected first, then the weapon second.

DROP: Allows an item to be dropped on the ground.

SELECT the item in the bulk inventory and click DROP to drop it. The item will be visible in the world at the players feet.

CRAFT:

When a crafting dummy is placed in the world, the CRAFT button allows items in the bulk inventory to be combined with the crafting dummy without first equipping them or adding them to the players hands.

SELECT the item in the bulk storage by left clicking, then click CRAFT.

The players total carry weight and their current max carry weight is shown at the bottom right of the inventory display.

Exceeding this weight will cause the player to become “Encumbered”, which will slow the player, prevent them from sprinting or jumping, and has a chance of causing injury.

The players max carry weight can be increased or decreased by acquiring certain traits or skills.

“Stackable” objects (Such as ammo, etc) will be automatically combined together in the inventory.

CRFT (Crafting)

Crafting allows the player to create anything from tools and weapons to medical items and shelters and even more complex buildings.

New craftable items can be unlocked by discovering or purchasing those items (Or a blueprint for the item) in the world.

Once the player has added a new item to their inventory, it will be available for crafting.

Main: Displays the main crafting menu.

Back: Moves back on step in the crafting menu.

- “Craft”: Sets “Crafting” mode, used to create objects.
- “Edit”: Sets “Edit” mode, used to view and edit individual objects.
- “Delete”: Sets delete mode, used to delete individual objects.
- “Clear”: Clears all crafting dummies.

Clicking on a heading advances to the next level, clicking on an object displays that objects details in the display window, which includes the components required to craft it.

SELECT an item from the crafting list, and RIGHT CLICK in the world to place a crafting dummy.

RIGHT-CLICKING and HOLDING the crafting dummy will allow it to be moved and rotated (Provided that the item can be moved/rotated, not all can).

It may be helpful to close the MPC when moving/rotating items.

MOVE the item by pointing the mouse toward the desired new location.

ROTATE the item by using the mousewheel.

Release RIGHT-CLICK to end move/rotate mode.

Interact with the crafting dummy by selecting an item from the inventory or from the world, and placing it into the players hands.

Then RIGHT CLICK on the crafting dummy to combine the object.

Continue doing this until all of the requisite items for the object have been met, the crafting dummy will then be replaced with the finished object, which can then be used, picked up, moved, etc.

When a TOOL is a requisite item, the TOOL needs to be in the players inventory (One of the six inventory slots), it does not need to be in the players hand.

If all requisite items have been combined with a crafting dummy but a required tool is not in the players inventory, simply add the tool to the players hand and RIGHT-CLICK on the crafting dummy.

SCAN

Scan is a very useful ability that allows the player to detect nearby objects, resources, and buildings, using a variety of different options and settings.

“Prox.” (Proximity) is used to detect all objects within 2500 meters of the player, regardless of direction.

“Direct.” (Directional) is used to detect objects within 5000 meters directly in front of the player.

“Shuttle” and “Rover” are used to specifically scan for the shuttle and rover.

“Special” is used to scan for specific quest items during certain quests.

Filter Mode:

“All”: Scans for all objects

“ENV”: Scans for objects in the environment (Structures, buildings, etc).

“BIO”: Scans for life signs (Crew Members, etc).

“MKR”: Scans for marker objects. These are mostly quest items, such as beacons, etc.

A list of targets matching the selected filters appears, with the target name, distance, and relative (To the player) bearing displayed.

When the “Bearing” is 0, the player is directly facing the target (A bearing of 180 is facing directly away, etc).

The MPC will update the targets in real time, and the MPC can be minimised to allow the player to navigate through the world easily while scanning.

Alternatively, press “G” to display the radar, and turn to face the target (Bearing is 0), then take note of the compass bearing on the radar (This is the absolute bearing, not the relative bearing).

The MPC can then be hidden, and the player can use the compass bearing to navigate toward the target within needing the MPC to be displayed.

HACK

The “Hacking” screen is a powerful ability that players can use to take control of some machinery and items in the game, including turrets, cameras, automated gates, etc.

Players can control cameras and view the camera feed in the MPC, as well as take manual control of turrets and fire the turrets weapons remotely, or order the turret to attack enemies automatically.

To use the hacking screen, first click “Scan”. This will display any controllable objects within range.

Select the object in the list, and click “select” to select it.

“Enable/Disable” will turn the object on and off, without alerting nearby enemies (Work on cameras, turrets, etc, and can also open doors and gates).

“TGT” Ally works only on turrets. This will cause the turret to automatically engage it’s own ally’s.

“Manual” works on turrets and cameras. Allows the player to take manual control of the object. The player can move and rotate the object, and view it’s camera feed, as well as fire the turrets guns, from within the MPC.

CHAR (Character)

Displays the CHAR (Character) Sub-buttons.

Details

Displays the Player Characters Backstory, personality, reputation, and other details.

Stats

Displays the Player character status effects, stats, inventory, total journey time (Playtime), and other details.

Skills

Allows the player to assign skill points, choose skills, and view current active traits.

Clicking on the “+” icon will allow the player to view all skills in that category. If the plus icon is green, there are unspent skill points in that category.

Clicking on the skill will provide a description, and clicking on “Learn” will allow the player to learn that skill (Provided the player has the required skill level).

Clicking “Back” takes the player back to the skill menu.

DATA

Displays the CONSOLE Sub-buttons.

Console

Displays the console. This is the same console that can be displayed on screen with F5 or the MAIN>DISPLAY options, but integrated into the MPC.

Database

Displays an in-game database providing information on controls, items, crafting, status effects, and everything in between. A must-read!

Log

Displays the status of any current and completed quests that the player is involved in.

INFO

Opens the INFO Sub-buttons.

NAV: (Navigation)

Displays the players current zone, position, planet (If landed), etc.

ENV: (Environment)

Displays local planet conditions. Time, weather, environmental conditions, etc.

SHIP:

Displays the capital ships stores, ammo, fuel, and current thrust/velocity, etc.

RES: (Resources)

Displays the number of research, minerals, and ore, that the player has collected.

COMMS

Radio: Not Yet implemented.

Send Message: Send a message to another character.

Enter the Characters name in the “To” field, and the message in the message body, and click send.

Player name must be exact.

Please note that messages are NOT encrypted, meaning that Server Administrators can read player messages. This is deliberate, and is done to ensure a positive and safe community for all of our players.

The in-game messaging system should NOT be used for sending confidential or personal information, it should be used for game related communication only.

Received Messages: Displays all messages received from other characters.

Click “Check” to update the message list.

Received messages will be displayed at the left side of the screen.
Reply will open the send message screen to allow a reply to be sent.
Delete permanently deletes a message. This action cannot be undone.

MISC

Build: Allow building and moving/rotating of complex in game objects. This GUI will be merged with the crafting gui eventually.

Build/Destroy: Enters build/destroy mode. Build or Destroy the currently selected object.

Move/Rotate: Enters move/rotate mode. Move or Rotate the currently selected object.

Clicking “Homestead” builds a Homestead at the position the player is currently looking at.

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Avatar:

The Avatar is the players presence in the world of Spiritus Astrum.

In general, in Spiritus Astrum, Right clicking in the world SELECTS objects and left click USES them.

The Avatar is customised in the startup menu.

The Keyboard commands for controlling the Avatar are displayed above.

Inventory:

In addition to the Inventory management accessible from the MPC (Detailed above) the player can also access their equipped items using the “I” key.

This will allow the player to view the currently equipped items that they are carrying.

Right Clicking on an object will select it.

Pressing “U” will add that item to the hand.

Pressing “U” again will return it to the inventory.

Right clicking and holding on an object will enable combination mode.

Moving the mouse and releasing it over another object will combine the two items, if an item combination is possible.

Companions:

During the course of Spiritus Astrum, the player may find Companions to travel the world with.

Depending on how strong the players “relationship” is to these companions, they can heal the player, assist them in combat, or discover useful items in the world.

The relationship can be improved by interacting with the AI, selecting them as a Companion, going exploring, etc.

The player can interact with their companion by right-clicking.

They can also use the AI Command menu at any time to issue commands to the AI.

AI Command Menu:

The AI Command menu can be toggled by pressing “/”.

At the top of the screen, the name of the AI that is correctly set as the player companion is shown.

To set/unset a character as a companion, right click on them and select “I need your help” to choose or “Thanks for your help!” to dismiss the companion.

Only one character can be set as a companion at once.

Commands:

“Thanks, That’s ALL”: Dismisses the companion, if on board the vanguard, they will return to their usual duties.

“Heal Me”: The companion will attempt to heal the players wounds. Only available if the player is “Allies” or above.

“Reload Me”: The companion will search for ammo for the players current weapon. Only available if the player is “Allies” or above.

“Stay Here”: The companion will stop and remain in their current position.

“Let’s stop here for a bit”: The companion will stop and act autonomously near the current position. Their actions will vary depending on the environment and any nearby objects.

“Come Here”: The companion will make their way to the players position.

“Follow Me”: The companion will follow the player, or resume following the player after being ordered to stop.

“Relax”: The companion will lie down.

“Sit”: The AI will sit down on the nearest chair.

“Open That Door”: The AI will attempt to unlock the nearest locked door in the direction that the player is looking. Only available if the player is “Allies” or above.

“Pick That Up”: Pick up the nearest compatible object in the direction that the player is looking.

“Put that Down”: Drop the object that the companion is holding on the ground.

“Close”: Closes the AI command menu.

Not all options are available for all AI in all circumstances.

Vanguard:

The Vanguard is the players home amongst the stars.

The ship possesses powerful weapons, and can travel across star systems at tremendous speed.

Your ship may also be home to various crew members, with whom you can explore planets and go adventuring.

From Fore to Aft, the vanguard compartments are:

Living Quarters:

This is where the player and their companions live and sleep. The player will always start the game here when they load a game on board the vanguard.

Right-clicking on the bed allows the player to sleep, gradually reducing their “Sleep” stat.

Sleep is persistent: The sleep stat will continue to reduce if the player is asleep when they exit the game.

Sleeping on board the Vanguard also heals the players wounds (This is temporary, later, a medical bay will be added to the Vanguard for this purpose).

Players can also customise the pictures on the wall by adding images to the P0-SPIRITUSASTRUM_Data\StreamingAssets\images\portrait OR P0-SPIRITUSASTRUM_Data\StreamingAssets\images\ landscape directory.

Then right clicking on the picture objects on the wall until the desired image is displayed.

These customisation choices are also persistent.

Rec Deck:

The Vanguard's Recreation Deck, or Rec Deck, where players socialise, eat, train, and relax.

The rec deck contains a shooting range, a galley, a gym, and other amenities.

The player can sit at the table with the meal placed in front of it. Right clicking the meal will fully replenish the players food and drink stats.

The player can interact with the web browser on the wall of the lounge area. This allows them to visit any website from within the game! It is possible, for example, to visit youtube and watch video, listen to music, etc, entirely from within Spiritus Astrum!

The player can play card games with an AI companion if their relationship stat is high enough. Simply right-click on the AI companion while on board the vanguard and ask them to play a game.

Then accompany them to the rec deck, take a seat on the large lounge chair, and begin the game.

The player can also sit in front of the laptop on the desk and use it to save and load text notes and perform various other basic functions.

The player can use the shooting range to improve their combat skill, and the gym to improve their fitness skill.

Engineering:

The heart of the ship, where the vessels fusion core is located.

The player may manually control the power settings of the ship by using the control panel in front of the fusion core.

There is also a panel next to the Main Reactor panel that allows the player to access the Vanguard's Database.

The “Damage Control” station allows the player to view any damaged compartments on the vanguard.

The Vanguard carries four escape pods, two of them are located in the Engineering section.

Forward and Aft Gun Batteries:

Guns. These are used to house the ammunition and internal machinery of the Vanguard's Main Guns.

Missile Bay:
Missiles. These are used to house the missiles and associated machinery for the Vanguard Missiles.

Medical bay:
Not accessible yet.

Science Lab:
Not accessible yet.

Docking ports (Port and starboard):
These allow entering and leaving the ship while in orbit.

To use the docking ports:

Exiting:

Close the Inner door first, then close then open the Outer door.

Entering:

Close the outer door first, then open the inner door.

Deploy/Retract the ramp if the vanguard is landed.

Cargo Bay 1:
This is the main cargo bay, where ships food stores and equipment are kept.
It is also possible to manufacture new equipment from here using the resource printer.
The ships food stocks are the green crates at the right corner of the room. The number of crates represent the amount of stocks that the ship currently has left.
The storage racks on the left of the room hold items that the player has manufactured.
The Rover can be added to the shuttle as cargo by right clicking the rover, and right clicking the shuttle.
It can be removed by right clicking the rover n board the shuttle.

Manufacturing:
Use the appropriate "Restock" button to restock the Vanguard Missiles, Cannon Rounds, CIWS Rounds, and stores.

"Restock shuttle" will restock the shuttle with the default items.

The energy to restock these items comes from the main reactor, which is a finite resource. The current reactor fuel level is also displayed here.

Restocking the main reactor can be done either by using the Solar Collector or Harvesting Deuterium from a Star (See the Control Room Documentation).

"Reset Shuttle" resets the shuttle control object to the default Vanguard shuttle, and places it in Hanger 1.

This is useful if the player has changed their shuttle control object type to another shuttle, or if the shuttle is not in the Hanger.

Creating Items:
Items can be crafted using the Resource printer.

In addition to the default items, new items can be unlocked by either finding the item in the world, or a blueprint for that item. Once an item has been added to the inventory, it will be available for crafting.

Select the item from the list on the left, this will display the item information.
Click “Create” to create an item and add it to the cargo bay stores.
Click “Destroy” to delete an item from the cargo bay stores.
Click “Store items” to automatically add any items in the player inventory to the cargo

bay.

This is useful when returning from exploring with a full inventory.

Cargo Bay 2:

Used for general storage of items.

Hanger 1:

This is where the vanguard's shuttle is kept.

Press “N” to enter, and “R” to accelerate straight up out of the hanger.

When re-entering the vanguard, “Home” when close to hanger 1 to enter.

Hanger 2:

Currently empty.

Control Room:

If the engineering section is the heart of the vanguard, the control room is its brain.

To access the control room, enter the elevator in the engineering bay, and right click on the switch in front.

To get back down to the engineering section again, stand on the platform and use the switch in the control room.

The control room contains many interface panels and interactivity options.

Combat Information Center (CIC):

The large, round, holographic display in front of the elevator is the CIC radar display.

This display is used to visualise any ship, planet, or object, surrounding the vanguard, as well as perform various navigation and scanning functions.

The player can zoom into the CIC using the mousewheel. Press the middle mouse button to reset the view.

Starting from the left and proceeding in a clockwise direction, then various consoles are:

Sensors:

Probably the most important panel on the CIC.

This allows the player to display all of the ships, players, and stellar objects within range of the Vanguard's sensors.

The object's object ID is displayed. This ID can be used to manually plot a course to that object using the HELM Menu.

The object's distance is also displayed. Hostile targets will change to yellow when close to a player, and red when very close.

It also shows the Vanguard's current observability and detect radius.

The Observability is the chances that the vanguard can be detected, and the detect radius is the distance at which the ship can be detected.

These factors can be influenced by the Vanguard's speed, whether or not its weapons are powered up, or whether or not it is in silent running.

“Mode 1: Hostile”: Displays only hostile ships, projectiles, and other objects.

“Mode 2 Stellar Objects”: Displays all stellar objects in the system, from planets, to ringworlds. It also displays starbases, stations, jump gates, etc.

“Mode 3: NAV Objects”: Displays all nav objects in the system.

“Mode 4: Starmap”: Displays all major stellar objects in the current zone and the surrounding zones. Very useful for planning FTL trips.

The CIC display can be scaled by using the icons to the left and center of the menu.

“Auto” sets the display automatically, this is the most useful option.

10k/100k/1E12k: Sets the range scale to 10,000 meters, 100,000 meters, or 1000000000000 meters respectively.

The buttons “-10/-2/+2/+10” are used to make fine adjustments to the range scale. -2 and -10 reduce the scale by 2 times or 10 times, and +2 and +10 increase the scale by 2 or 10 times.

The buttons at the bottom are used to filter objects from the display.

“All” displays all objects, while the other buttons are used to display either Only Stars, Asteroids (Useful for mining) planets, or stations.

Navigation:

The navigation menus are used to display information on objects in the CIC, and plot a course to navigable objects (Only Mode 2 objects, ie, stellar objects, starbases, etc, are navigable).

Click “Information” to enable the system.

Then, click on any object on the CIC to show it’s information.

Click “Set course” to plot a course automatically to that object. Use the HELM to begin travelling to that stellar object.

Stellar objects can also be selected, and courses plotted, using a 2D nav map.

To the left of the navigation display, there is another interface menu.

Click “Scan” to get a 2D list of all stellar objects in the system.

Click on an item on that list, and click “SETC” to plot a course to that object.

This can be easier than clicking on the CIC radar display if there are many objects in the current system, etc.

Resource OPS:

When the vanguard is orbiting a star, asteroid, or another resource-rich stellar object, this console allows the vanguard to mine it for resources.

Certain types of stars produce deuterium fuel, asteroids can produce metals, etc.

Click “Scan” to display the resource type that can be harvested.

Then click “Collect” To begin the harvest process.

You will need sufficient space in the cargo bay first.

“Claim” is used to claim (An unclaimed) world. This allows you to permanently name the world after yourself!

Click the claim button and wait for the planet to be scanned.

Then, you must visit the planet and place a Planetary Claim marker by using “L”.

You may then name the planet and add a short message about your discovery!
This planet will then be permanently named after you in the database.

To the left (Port) side of the Vanguard, there are several more interface panels.

One is an information display, showing important information about the vanguard, such as fuel and ammunition remaining, resources gathered, etc.

Behind this panel is another interface that displays the console, and the other displays the Vanguard's Database.

To the right (Starboard) side of the Vanguard, is the Long Range Radar Scanner and course plotter.

This menu is intended to compliment the 3D CIC Radar scanner. Long Range Radar scanner and course plotter can more easily plot courses and track fast moving targets at long ranges or in cluttered environments.

Left click on an object to select it.

The display on the left shows the name, position, distance, and other information about the selected object.

The four mode select buttons work in the same way as the CIC Radar display, use these to filter which targets are visible.

Only Mode 1 (Hostile) and Mode 2 (Stellar Objects) are current available.

Click "Scan" to populate the display.

Clicking on a stellar object on the display and clicking "SetC" (Set Course) will plot a course to that object.

Use the HELM menu to start the course.

"SHIP CNTR" (Ship Center) centers the map on the players ship (Ownship).

"OGN CNTR" (Origin Center) centers the map on the origin of the coordinate system used to plot the objects (0,0,0).

"OBJ CNTR" (Object Center) centers the map on the selected object.

The buttons X/Y, X/Z and Y/Z allow the sector maps 2D axes to be chosen.

For example, if X/Y is chosen, the 3D world is plotted onto an X/Y graph, with the Z axis set to 0.

Depending on the layout of each star system, different axes may make the map more easily readable.

"100+/10+/1+": These buttons scale the map up (Zoom in) by the specified value.

"RESET": Resets the Map scale.

"100-/10-/1-": These buttons scale the map down (Zoom out) by the specified value.

"Track": Automatically centers the map around a moving target, keeping that target in the center of the display.

"Trace": Displays a breadcrumb trail behind a moving target, very useful for visualising the targets course.

"SCAN RNGE": (Scan Range): Display a ring showing the scanning range of the Vanguard.

"DTCT RNGE": (Detect Range): Display a ring around enemy vessels showing their

detection range.

Waypoints are used to manually specify points on the navigation map, that the Vanguard can then travel to.

“Create Waypoints”:

Click this to enable waypoint creation mode.

Then left click on the sectormap to place a waypoint.

“Clear Waypoint”:

Click this to immediately clear all waypoints.

“Travel To WP”: (Travel to Waypoint):

Automatically plots and initiates a course to a specified waypoint, without using the HELM menu.

Moving further forward into the control room, the center of the compartment is occupied by the Captains chair.

The Captains chair has a small interface console.

“Secure from General Quarters/Rig for General Quarters”: Manually enables and disables the ships alarm.

When in General quarters, All crew members will immediately move to their action stations and stay there.

When in normal condition, All crew members will be released from action stations, and will resume other tasks.

“Rig for Silent Running/Secure from Silent Running”:

Sets/Unsets “Silent running” mode.

When in silent running, the Vanguard is much harder to detect (Is less observable), however the ships weapons are disabled and its maximum speed is substantially reduced.

To the right of the Captains chair, is a small Radar map used to display critical information at-a-glance.

In front of this radar display, is the HELM station.

HELM:

The main helm menu allows the player to move and rotate the ship at sublight speeds or faster than light speeds, as well as intercept specific objects, and land on planets.

The display at the top of the helm menu shows the ships position, velocity, remaining fuel, remaining travel time, etc.

At the right, the Attitude indicator provides a visual representation of the ships rotation.

The HELM also contains a nav HUD that shows ships, beacons, and other useful objects and their position in relation to the player, as well as their distance from the player.

This HUD is identical to the one on board the shuttle, see the shuttle documentation for more information on this system.

The Capital ship is controlled at sublight speeds by using the following keyboard commands:

Keypad0: Fire Main Engine (Accelerate).
Keypad PERIOD: Fire Reverse Thrusters (Decelerate).
Keypad 5: Switch between ROTATE and TRANSLATE Modes.

Keypad4: Rotate/Translate LEFT
Keypad6: Rotate/Translate RIGHT
Keypad8: Rotate/Translate DOWN
Keypad2: Rotate/Translate UP
Keypad1: TWIST LEFT
Keypad3: TWIST RIGHT

“Activate”: This activates and deactivates the HELM panel. All control inputs will be disabled unless the HELM panel is activated.

“Translate”: Sets the ship to TRANSLATE (Move) mode (Sublight Only).

“Rotate”: Sets the ship to ROTATE Mode (Sublight only).

“Cruise”: Sets/Unsets Cruise Mode. When in cruise mode, the ship will maintain its velocity, not accelerating or decelerating.

When controlling the vanguard manually, the ship will make sure of a thruster “battery” that will limit the burn time of the thrusters. This thruster battery will replenish over time, taking fuel from the main reactor. This means that the player will need to plan their movements carefully to avoid running out of thruster fuel during combat or critical manouvers!

“Dock”: If the Vanguard is close to a dockable object, dock the ship.

“Land”: Enables landing mode. This mode must be set when attempting to land on a planet. Note that landing on planets (With Capital Ships) is currently experimental.

“Limit”: Limits the Vanguards speed. Useful when fine movements are required, such as during landing or docking operations.

The large red slider in the center of the HELM display is the velocity slider. This controls the ships acceleration and maximum velocity.

On the right of the helm menu:

The large input box is for inputting coords.

Click “Show current zone” to automatically populate the input box with the current zone.

To initiate an FTL Trip:

Input the coords in the main input box (in the form: 1,2,3 The comma is important).

Click “Zone” on the right.

As long as the vanguard has sufficient fuel, the FTL trip will begin.

The trip time remaining will be displayed on the panel above.

To travel very long distances, the “long range targeting” button below the input box must be enabled.

To travel to a set of coords (Autopilot):

Input the coords in the main input box (in the form: 1,2,3 The comma is important).

Click “Coord” on the right;

As long as the vanguard has sufficient fuel, the trip will begin.

No input is required from the player, this system is automatic.

Below the Coordinates input box, is the stellar object input box.

This is used to travel to objects (planets, ships, stations, etc) in the system.

To travel to a static object:

Enter its ID into the input box (If the player has used one of the nav maps to plot a course, the objects ID will already be input here).

Click “ENT” (Enter) to start the trip.

To travel to a moving object, and match its course:

Enter its ID into the input box (If the player has used one of the nav maps to plot a course, the objects ID will already be input here).

Click “INT” (Intercept) to start the trip.

“Abort FTL” aborts an in-progress FTL trip, however this will drop the ship out of FTL into whatever system it was flying through when the trip was aborted. This can be dangerous!

“Abort Sub” aborts a sublight trip and stops the vanguard.

On the right of the HELM menu is the ASTRODYNAMICS menu.

This is used to establish and maintain orbits around planets.

This system is experimental.

The display shows whether the ship is currently orbiting a planet

“BREAK” Breaks orbit, and disables the Astrodynamics system.

“STRD”: (Standard): Enter a standard orbit around a planet. The Vanguard will orbit the planet.

“GEO”: (Geostationary): Enter a geostationary orbit around a planet. The Vanguard will remain at its relative position above the planet.

“HIGH”: Enter a High orbit. Not yet implemented.

“LOW:” Enter a Low orbit. Not yet implemented.

To the right of the Astrodynamics menu is the TRADE menu.

This menu is used to trade with eligible starbases and trade stations.

Trading with other players is not yet implemented.

The display at the top shows the players current credits, and whether or not they are currently docked.

The screen on the left shows the players current inventory, the screen on the right shows the trading partners inventory.

To sell an item:

Select it from the list on the LEFT and click “sell”.

To buy an item:

Select it from the list on the RIGHT and click “buy”.

TACTICAL:

The tactical menu is where the vanguards weapons are loaded, aimed, and fired. This is also where stealth ships or “Wraiths” can be detected.

“FCS Radar”:

The FCS or Fire Control System Radar, is a specific type of radar used to detect and “Mark” enemy contacts so that weapons can be fired at them.

Any hostile contact detected by the CIC’s radar will be automatically added to the FCS radar’s contact list, which is displayed in the large window on the FCS system.

To manually control the FCS rader, select “Master Arm” to enable to interface.

Some vessels are invisible to standard radar.

These vessels are extremely hard to detect, and require the advanced capabilities of the FCS radar.

Click “FCS” to set the radar to the correct mode.

Use the bearing wheel on the left of the FCS radar to scan the area around the vanguard in a 360 degree arc.

Then click “XMIT” (Transmit) to transmit an active radar ping in the selected bearing.

If a stealth vessel is located on that bearing, the signal response graph above will show noticeable spikes.

To lock on to that object, select the 3 largest spikes, and click “MARK”. If the spikes correspond to a stealth vessel, that vessel will be detected and added to the Target list, where it can then be engaged.

If the object is not added to the target list, then the spikes detected did not correspond to a stealthed vessel, try changing the bearing and retransmitting active radar pings.

When a capital ship is detected by the CIC, the FCS radar can be used to target specific sub-locations on the ship (Such as the control room, engines, etc).

This gives the player the ability to inflict localised damage to the enemy ship.

To do this:

Click “TLST” to set the radar to the correct mode.

Select the target in the target list, and select “DSCN” (Deep Scan). This will display the available sub locations for that target.

“CIWS”:

CIWS is the ships “Close-In Weapons System”, or point-defence system.

On the vanguard, this takes the form of 16 autocannons located in 8 turrets surrounding the vessel, with up to 1000 rounds carried.

It’s purpose is to shoot down enemy missiles before they strike the ship.

Click “Master Arm” to arm the CIWS guns.

Select “AUTO” to set the CIWS guns to “Automatic” targeting.

Select “Fire” to arm the system.

The ships tactical officer will do this automatically if they are at their battle station.

Most of the time, the CIWS guns should be used in AUTO mode.

To control the CIWS system manually:

Select “MAN” (Manual).

Select “Missiles” “Fighters” or “cap ships” under “priority”.

Note that the CIWS guns can current only engage missiles.

Select “Fire” to start or stop targeting.

Select “AUTO” at any time to set the system back to automatic.

The CIWS guns use up ammunition at a fast rate, make sure to keep the CIWS guns loaded by using the resource printer in Cargo bay 1.

Main Battery:

For short and medium range anti-ship duties, the vanguard is armed with 8 rapid-fire main guns in 4 turrets surrounding the ship, with up to 100 rounds carried.

To use the Main Battery in AUTO mode, first select “Master Arm” to enable the system.

Select “AUTO” to set the system to Auto fire.

Set the priority to missiles, fighters, or capships.

The main battery is currently only effective against capships.

Select “Fire” to arm the system.

To use the Main Battery in MANUAL mode, first select “Master Arm” to enable the system.

Then, select a target (or a target sublocation) from the target list.

Then select “Fire” to arm the system.

Missiles:

For medium and long range engagements, the vanguard carries up to 40 missiles in 8 silos.

The vanguard's missiles are the preferred method of engaging distant targets.

The Missile interface menu can also be used to launch probes to observe distant targets.

To launch a missile at an enemy:

Select “Master Arm” to arm the system.

Select a target (or a target sublocation) from the targetlist.

Choose a missile silo for the missile attack. Multiple missiles can be launched at the same target.

Select a missile type.

“Jackhammer” missiles are used for short, medium, and long range attacks.

This is the standard missile that should be used in almost all cases.

“Astra” missiles are a special type of missile used only for long and very long range attacks.

“Probes” are not a missile, but a sensor probe with a remote camera, used to observe distant targets.

Once the desired missile has been selected:

Choose “Lock” to lock the missile onto the target.

Choose “Arm” to arm the missile.

Choose “Door” to open the muzzle door.

When all indicator lights show yellow (and are not blinking or red) choose “FIRE” to fire the missile at the specified target.

The CIC radar shows all missiles, both enemy and friendly.

Friendly missiles show up in blue, enemy missiles show up in red.

To reload a silo :

Click “Door” to close the silo door.

Choose a new missile type.

To the left of the tactical display is the comms display.

COMMS:

This system is used to send and receive messages from other players and NPC's.

The COMMS system displays a list of targets in the center.

The player can use the Frequency settings on the left to enter or select a specific transmitting frequency.

The player can use the sliders at the top of the display on the right to adjust the QLTY (Quality) and PWR (Power) of the radio signals.

The player can send a message by typing it into the input field on the right, and pressing enter.

If a target is selected, the message will be sent to that target, otherwise it will be sent to any target in the system.

Several commands can be used with the COMMs system.

Type `"/POS"` to enter the players position in a message.

Type `"/ZONE"` to enter the players zone in a message.

Type `"TRADE"` to initiate a trade request (after first selecting a target).

Type `"THREATEN"` to attempt to threaten a target.

Type `"BRIBE"` to attempt to bribe a target (Will cost credits if successful).

Type `"NEGOTIATE"` to attempt to negotiate with a target.

Type `"SURRENDER"` to attempt to surrender to a target.

To the left of the COMMS menu is the POWER Menu.

POWER:

The power menu is currently used only to harvest a small amount of deuterium (Reactor fuel) from stars, in the event that the ship completely runs out of fuel and is stranded.

To do this, click "Activate" to activate the system.

Click "D2 Array" (Deuterium Array) to engage the deuterium collector.

Note that the ship will not be able to move while the D2 array is enabled.

Misc:

The Red and Green cube objects that are visible in most compartments are for manually enabling, and disabling, the ships alarm.

Right-clicking on the Red cube sets the ship to "General Quarters": All crew members will immediately move to their action stations and stay there.

Right-clicking on the Green cube sets the ship to "Normal Condition": All crew members will be released from action stations, and will resume other tasks.

Compartment Access Panels: Dealing with emergencies

Each compartment on board the Vanguard has it's own damage control interface.

This interface is designed to be used to deal with emergencies such as gravity failures, power failures, etc.

It is not sufficient to repair extensive battle damage (See the below section).

When a compartment has suffered an emergency, one of the lights on the main panel (FIRE, RAD, etc) will light up.

Right click on the gui, and press "ESC" to access the MPC.

Click DATA>DATABASE>SHIP>DAMAGE CONTROL to access the damage control checklist.

Select the tab for the specific emergency, and follow the steps.

Use the buttons at the bottom of the damage interface panel to follow the steps given in the database.

Repairing Damaged Compartments (Extinguishing fires)

When a compartment is damaged, it will be filled with sparks and flames.

The Damage Control officer will repair all damaged compartments automatically (If they are at action stations), however, the player can also do it manually.

Select a fire extinguisher from any of the wall-mounted slots, walk to one of the fires, and right click and hold until the fire goes out.

Repeat this for all fires, once the red emergency lights go out, that compartment has been repaired.

Use the damage control display in the engineering section or in the control room to see which compartments have been damaged.

Repairing Hull Breaches (EVA)

Sometimes, during combat or another emergency, the ships hull can be breached, requiring an EVA (Extra-vehicular Activity) to repair.

In this instance, use the docking ports to leave the ship, find the damaged area of the hull (It will be producing a visible trail of sparks) and right click near the sparks to seal the hull breach.

Wrist Computer:

The wrist computer (Toggled by using the "C" key) is connected to the Vanguard internal computer system.

This computer is used to respond to various issues and events that may occur during the operation of the ship.

"New Event!" will be displayed in the console when a new event has occurred.

Shuttle:

The shuttle is the main way for the player to travel between their ship and the planet.

It cannot travel at FTL speeds, unless it passes through a jumpgate.

The Vanguard shuttle contains 4 short range missiles, however civilian shuttles also exist which are unarmed.

See "Controls" for the basic operation of the shuttle.

This section will deal with the guis and other important information related to the shuttle.

The main screen that the player sees in front of them when piloting the shuttle is the NAV HUD.

This displays information on the players velocity, altitude, and position (zone and coords) as well as informs the player if they are near a dockable object or if their speed is being limited because they are too close to another object or planet.

The HUD also features a navigation display that shows ships, beacons, and other useful objects and their position in relation to the player, as well as their distance from the player.

To navigate toward an object, turn the shuttle in the direction of the objects icon until the icon is centered in the screen.

Bear in mind that some objects may be on the opposite side of a planet or even the other side of the system! Take note of the distance from the object before starting a journey!

Clicking on a specific object on the left of the nav menu will display only that object.

Clicking on “Display All” will display all objects.

The top of the nav HUD features a number of filters that can also be used to control which icons are visible on the display.

“All”: Displays all objects (No filter).

“+/-”: Display invert. Any objects that are currently shown are hidden, any objects that are hidden are shown.

“NEAR”: Displays only objects within 50,000 meters of the player.

“OWN”: Displays objects that the player owns, such as the Vanguard and some crafted objects, as well as planetary beacons.

“ALLY”: Displays only the Vanguard and other friendly ships or objects (excluding the Crew).

“CREW”: Displays the players crew. Useful if crew members are lost, or stationed, on distant planets.

“MARK”: Displays Beacons and other Marker objects.

Below the Nav HUD are the main interface panels for the shuttle.

From left to right:

Tactical:

The Vanguard shuttle has very limited armament, but does feature four short range missiles.

To fire these weapons:

Select a target from the target list.

Click the number indicating which missile should be fired (From 1-4).

Click “Lock” and wait for the “Lock” indicate to turn green.

Click “Fire” to fire a missile.

These missiles cannot be reloaded and have very limited range and accuracy.

Intercept:

In contrast to it’s limited armament, the Vanguard shuttle possesses a more complex suite of countermeasures, both active and passive.

“ECM” (Electronic Countermeasures) are a “passive” counter measure, a means of

jamming the warheads of approaching missiles, making them more likely to miss the ship.

“ACTV” (“Active”) ECM is more effective at jamming missile warheads, but makes the shuttle more likely to be detected by primary radar, so it should only be used if a missile has already been fired at the shuttle.

“PSVE” (“Passive”) ECM is only effective at jamming missiles at long range, but has a lower chance of giving away the shuttles position.

“DECOYS”: Decoys are an “active” countermeasure. The Shuttle contains 2 decoy launchers, one port, one starboard, with 3 decoys in each. These cannot be reloaded.

Clicking the “port” or “starboard” decoy buttons releases a port or starboard decoy.

Enemy missiles will target the decoy, not the shuttle, allow the shuttle to successfully evade a missile attack.

The “Threats” display shows the status of enemy missiles and tracking radars in the area.

If all four panels are green, no detectable threats exist.

“LAUNCH” lit: A missile has been launched toward the shuttle (at any range). It may not be tracking the player.

“WARN” lit: An enemy missile is tracking the shuttle. Engage Passive ECM now.

“LOCK” lit: An enemy missile has locked onto the shuttle. Engage Active ECM now.

“PRXMTY” (Proximity) lit: An enemy missile is less than 800 meters from the shuttle. Deploy decoys now.

Ops:

This is a passive display that shows the status of all of the systems on board the shuttle. Green lights mean that a system is functioning normally.

If the shuttle is damaged, the damaged systems will be visible here.

Overhead camera:

The final panel on the right contains an overhead camera that shows the exterior of the shuttle and the ground beneath it.

This can be useful for landing, docking, etc.

Radar Display:

Behind the lower nav panel is the radar display.

This is very similar to the CIC radar display on the Vanguard, but much more basic, and does not allow interaction.

It shows the location and range of various objects, enemies, beacons, etc, in the world.

The final three panels are above the HUD menu.

From left to right:

NAV/HELM:

AUTO RETRN: (Auto Return): Automatically returns the shuttle to the vanguard without player input. This feature is not yet fully implemented.

AUTO NAV: Not yet implemented.

“DISP ALL”: (Display All): Displays all objects (No filter). Duplicate to the HUD interface.

“DISP Near”: (Display Near): Displays only objects within 50,000 meters of the player. Duplicate to the HUD interface.

“DISP ALLY”: Displays only the Vanguard and other friendly ships or objects (excluding the Crew). Duplicate to the HUD interface.

“DISP MARK”: Displays Beacons and other Marker objects. Duplicate to the HUD interface.

“WING” Extends and retracts the shuttles wings.

“DOOR” Opens and closes the shuttles rear door.

“CNPY” (Canopy) Opens and closes the shuttles canopy.

Thruster Status:

This menu is not yet implemented.

COMMS:

This menu is not yet implemented.

Cargo:

The shuttle contains an extensive array of tools, weapons, and items that can be used to make survival, mining, and homesteading much easier.

The shuttle can also contain a rover, which can be used to quickly move around on planets.

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