

UX Analysis of *Star Control: Origins*

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Purpose

The purpose of this document is to identify issues with the user experience (UX) of playing the game *Star Control: Origins* and offer suggestions for improvement. UX here differs from gameplay in that the focus is not on concepts such as world/level design, content design, or story. There is a strong focus on user interface (UI) design, but also a general critique of how the player is made able to draw information from the game to understand their situation in-game and go about gameplay in an informed manner.

The following points are issues in the user experience of playing the game with a Microsoft Xbox controller. Some issues translate over to play with keyboard and mouse and many points stand regardless of controls used. The issues are categorized according to some of the ten usability heuristics originally devised by Jakob Nielsen, selected and modified for their relevance to video game UX, along with additional heuristics that were informed by gameplay across multiple games, for a total of eight heuristics. Suggestions provided are quick, unpolished options for possibly solving the problems presented, and should inspire rather than define one's own solutions to these problems.

Heuristics

Visibility of system status: The system should always keep users informed about what is going on, through appropriate feedback within reasonable time.

Match between interface and game world: The interface system should speak the world's language, with words, phrases and concepts native to that universe, rather than modern colloquial terms. Show how the game's language relates to controls and status indicators.

Consistency and standards: Users should not have to wonder whether different words, situations, or actions mean the same thing. Follow platform and game world conventions.

Informed failure: Games must allow for mistakes and failure to make risks and loss meaningful, but such errors must be due to poor planning or bad strategy, rather than ignorance due to the game's failure to provide necessary information. Exceptions include scenarios wherein ignorance or powerlessness on the character's or player's part is desired.

Reference:

<https://www.nngroup.com/articles/ten-usability-heuristics/>

Heuristics Continued

Recognition rather than recall: Minimize the user's memory load by making objects, actions, and options visible. The user should not have to remember information from one part of the dialogue to another. Instructions for use of the system should be visible or easily retrievable whenever appropriate.

Efficiency of play: In just about any game, certain actions are universally the most frequently taken. Examples include taking all of a weightless valuable into one's inventory, accepting quick and free help, confirming a choice to engage in default gameplay, etc. For customizable games and variant control schemes, allow users to tailor frequent actions. Don't waste players' time.

Help and documentation: Even though it is better if the system can be used without documentation, it may be necessary to provide help and documentation. Any such information should be easy to search, focused on the user's task, list concrete steps to be carried out, and not be too large.

Suspension of play: Gameplay can be beneficially suspended in situations such as pause menus, inventories, dialogues, and cutscenes. Ensure that such suspensions don't detract from enjoyment of the game, and that the transition between suspended and active play allows for players to reassume control.

Reference:

<https://www.nngroup.com/articles/ten-usability-heuristics/>

Heuristics - Severity

Each heuristic will be graded on a scale of 0-4 to determine the severity of the game's usability issues.

0 = I don't believe this is a usability problem

1 = Cosmetic problem only: need not be fixed unless extra time is available

2 = Minor usability problem: fixing this should be given low priority. I also include missed UX opportunities under this rating.

3 = Major usability problem: important to fix, so should be given high priority

4 = Usability catastrophe: imperative to fix this before game can be released

OK/Excellent	Cosmetic	Minor	Major	Catastrophe
0	1	2	3	4

Reference:

<https://www.nngroup.com/articles/how-to-rate-the-severity-of-usability-problems/>

Evaluation

Suspension of Play



Severity

OK/Excellent	Cosmetic	Minor	Major	Catastrophe
0	1	2	3	4

In dialogue screens, the same key/button that is used for advancing the dialogue is used for entering/exiting the dialogue screen. When these commands are the same, especially the ones for entering and exiting dialogue, it often results in players button-mashing their way out of dialogue and right back in, or skipping through lengths of dialogue and accidentally selecting a decision choice they weren't prepared for.

There is no universal cancel/exit button, so the player is forced to cycle to the exit/back dialogue option when in the Communication window, made worse by the fact that cycling through menu and dialogue options is currently a little clumsy on a controller.



Suggestion:

Designate a universal 'exit/back' command, like the 'ESC' key or 'B' button.

Evaluation

Consistency and Standards



Severity

OK/Excellent	Cosmetic	Missed Opportunity	Major	Catastrophe
0	1	2	3	4

Wait a minute! You've already designated a 'back' command! Why isn't this ubiquitous throughout the game? Make it so.



Evaluation

Visibility of System Status

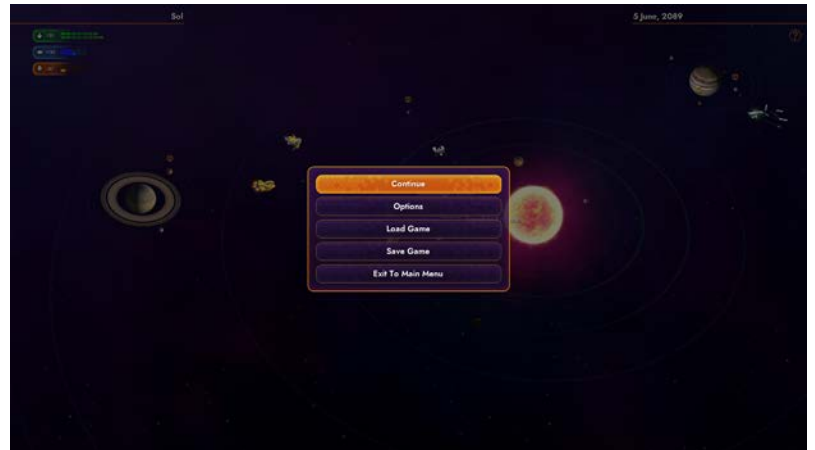


Severity

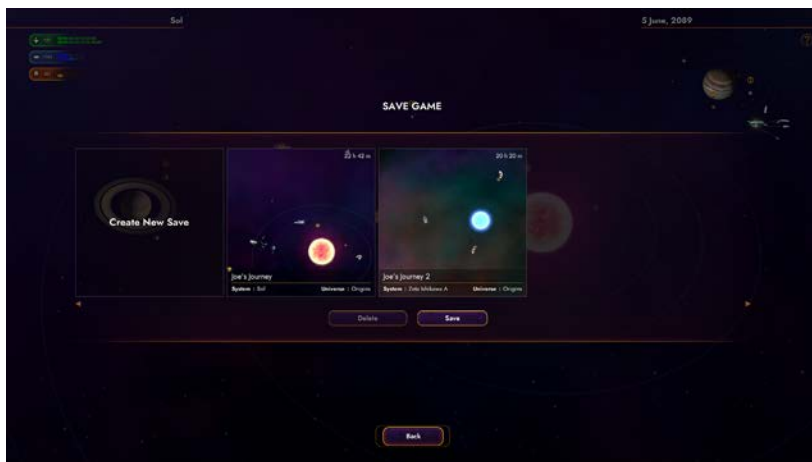
OK/Excellent	Cosmetic	Minor	Major	Catastrophe
0	1	2	3	4

When opening some menus—notably the save menu—there is no menu option that is highlighted at the start, requiring the player to either guess which option will be highlighted upon moving the control stick, or to wiggle the stick to reveal where they are in the menu. This is not an issue for mouse controls.

Good



Bad



Suggestion:

When controllers are connected, pre-select an option to be highlighted so players know where their next input will take them.

Evaluation

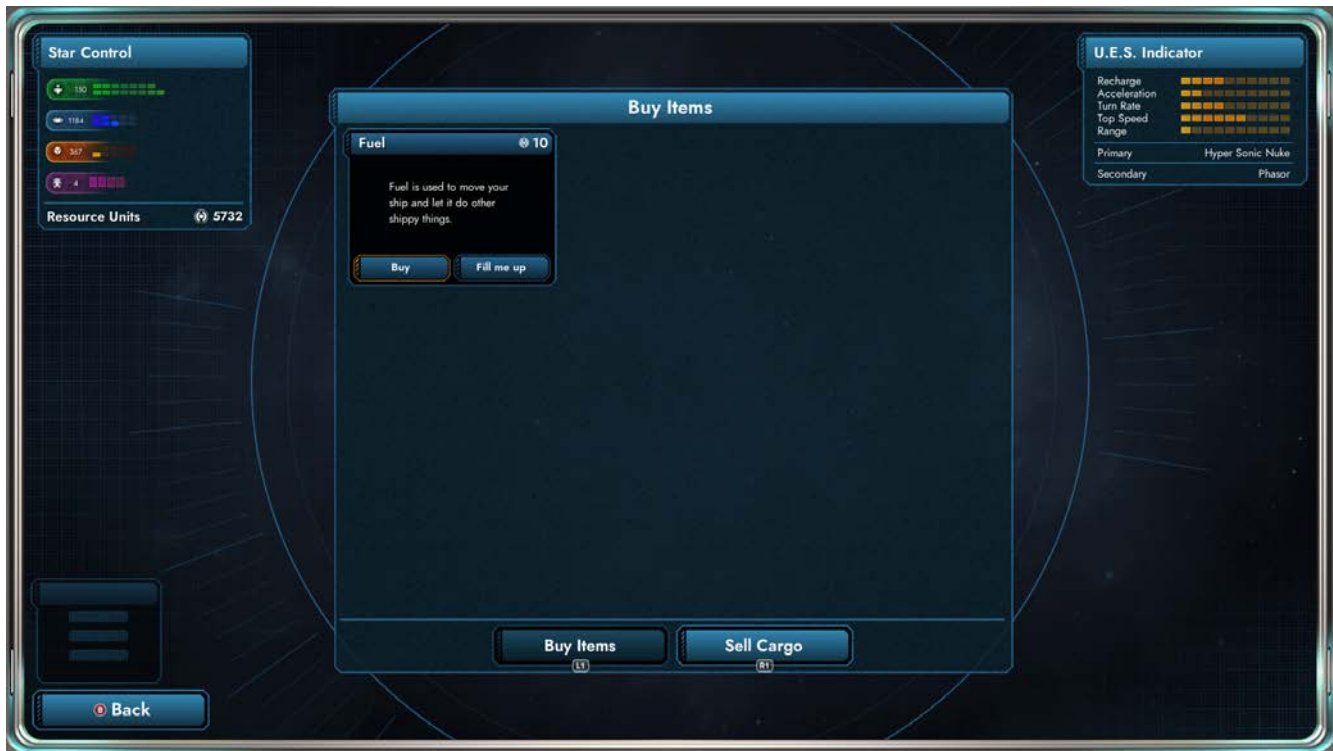
Efficiency of Play



Severity

OK/Excellent	Cosmetic	Minor	Major	Catastrophe
0	1	2	3	4

When refueling, no one buys fuel by individual 10-RU amounts, yet that is the first option to be highlighted upon entering that screen with a controller. This isn't a problem for mouse controls, but the fact remains that the per-unit buying option is largely unnecessary.



Suggestions:

Make "Fill Me Up" the default option to first be highlighted when navigating into the fuel purchase screen.

You might consider adding an easily accessible refuel button on the main Starbase screen, alongside the trade, outfit, fleet, and warp buttons.

Evaluation

Efficiency of Play



Severity

OK/Excellent	Cosmetic	Minor	Major	Catastrophe
0	1	2	3	4

When selling cargo, “Sell All Goods” is selected the most often, yet reaching it with the controller requires cycling through the entire height of the cargo screen to reach it, a long process when your hold is full. I eventually gave up and now use the mouse to click it.



Suggestions:

Consider moving “Sell All Goods” to the top to be the first thing highlighted when navigating with the controller or at least nearby, and/or adding a hotkey/button that automatically sells all items.

Evaluation

Visibility of System Status, Recognition vs. Recall



Severity

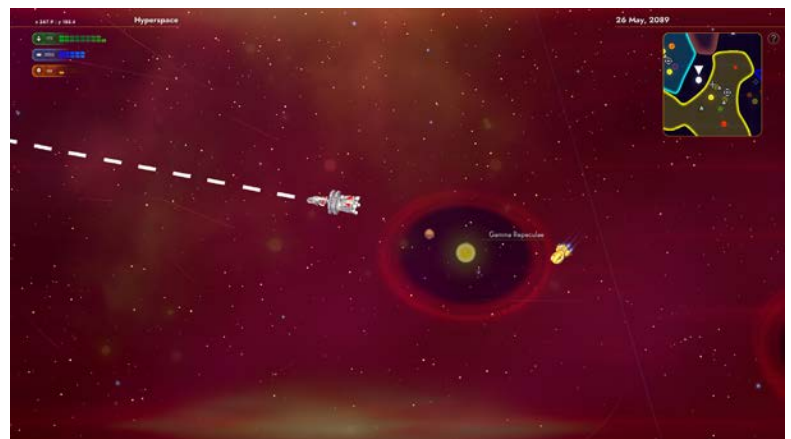
OK/Excellent	Cosmetic	Minor	Major	Catastrophe
0	1	2	3	4

You can't set any system as a waypoint visible on the hyperspace screen. Currently autopilot is the only way to reliably maintain your bearings in hyperspace. For a game that bills exploration as a selling point, this makes productive exploration towards anywhere outside minimap range impossible without frequent visits to the System Map, disrupting gameplay.



Current

Suggestion



Suggestion:

It would be helpful to allow the player to set waypoints that vanish once they reach their destination; this would allow players to select a given destination and explore their way towards it, without staring at the minimap.

Evaluation

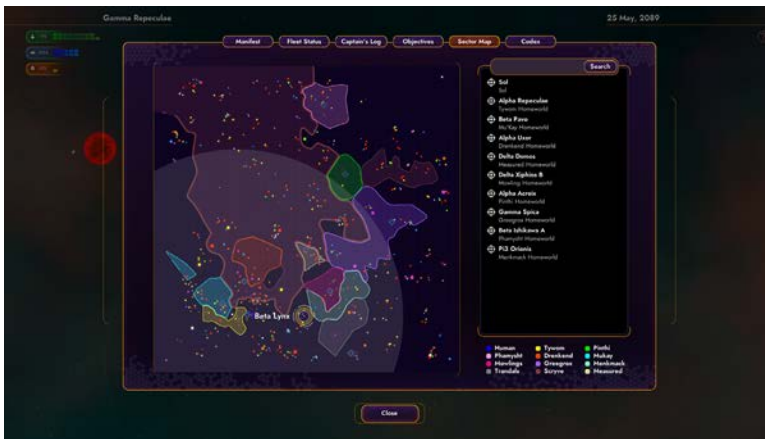
Visibility of System Status, Informed failure



Severity

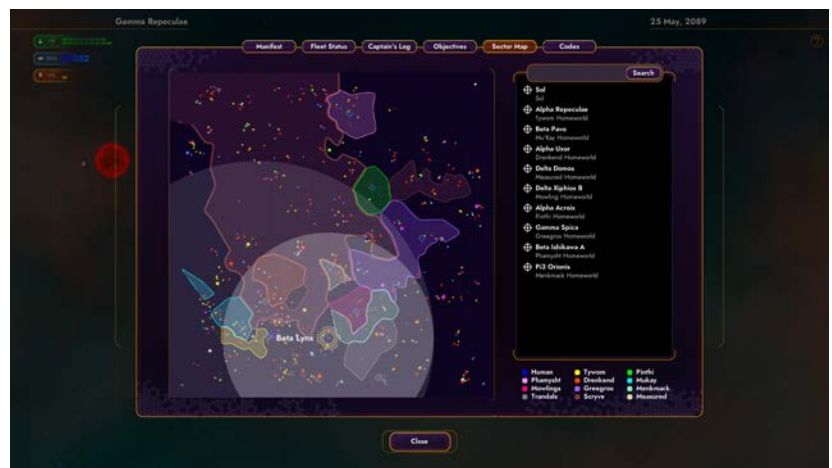
OK/Excellent	Cosmetic	Minor	Major	Catastrophe
0	1	2	3	4

In the System Map, the transparent circle is a useful way to determine max range, but it is not possible to accurately determine the possibility of returning to one's original position.



Current

Suggestion



Suggestion:

Implement a second circle, one that appears centered on any system the mouse/selection cursor hovers over, that illustrates the remaining range after reaching the selected system, allowing players to determine whether a two-way trip or a detour is possible without refueling.

Evaluation

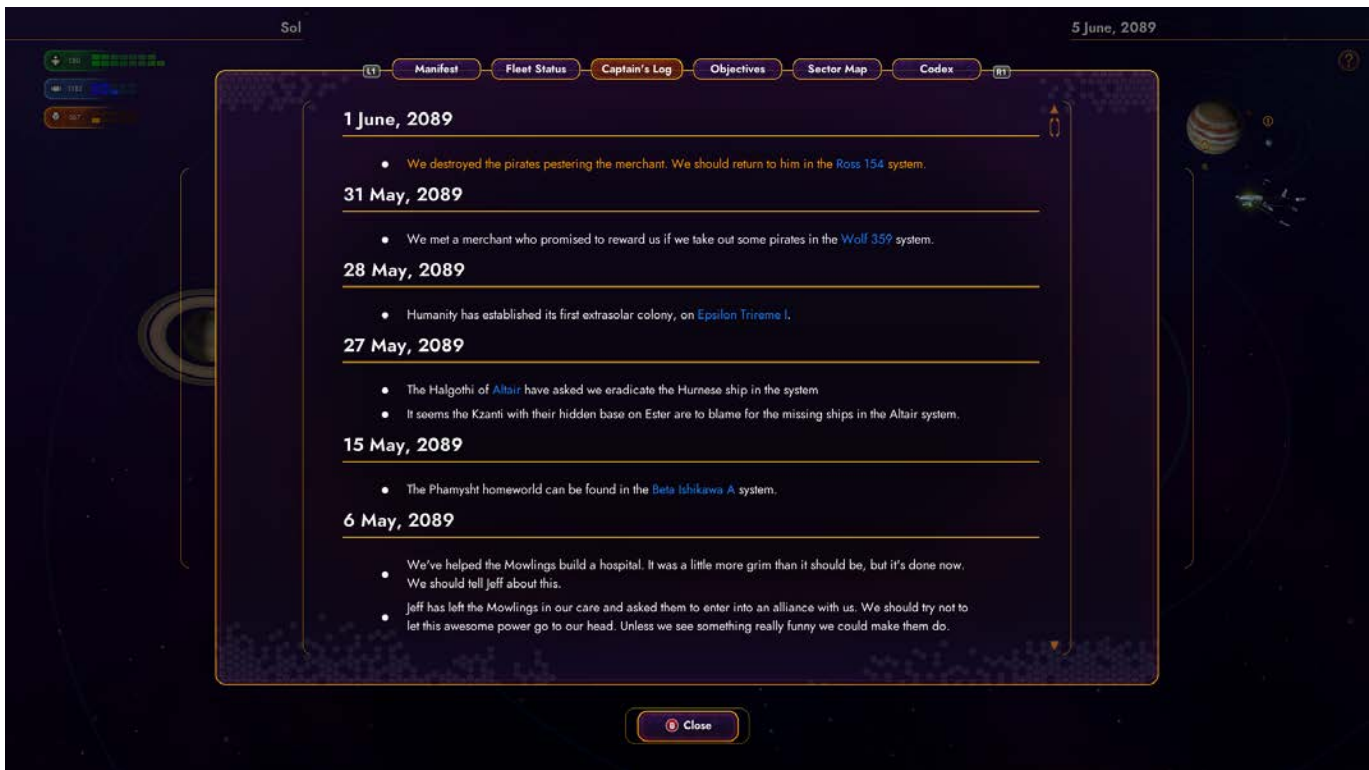
Efficiency of Play, Visibility of System Status



Severity

OK/Excellent	Cosmetic	Missed Opportunity	Major	Catastrophe
0	1	2	3	4

The ability to select locations from within the Captain's Log for quick access to auto-pilot is very good; I would suggest adding that same ability to the Objectives screen so people can view these important locations in the context of their relevance to a given mission, rather than chronologically, as in the captain's log.



Evaluation

Efficiency of Play, Suspension of Play



Severity

OK/Excellent	Cosmetic	Minor	Major	Catastrophe
0	1	2	3	4

The ship is way too slow during both interplanetary and interstellar travel, especially when it approaches the edge of the solar system in interplanetary travel. This is lessened as one comes across better hyperdrives and engines, but is crippling in the early game, and remains annoying even into mid-game unless the player sacrifices precious outfitting slots for accelerators.



Suggestion:

Consider changing speed to either faster overall or—as is seen in games like Elite: Dangerous—having the ship accelerate as it distances itself from important locations, and decelerate as it nears them, providing expediency on departure and control on approach.

Evaluation

Efficiency of Play, Suspension of Play



Severity

OK/Excellent	Cosmetic	Minor	Major	Catastrophe
0	1	2	3	4

When starting autopilot within a star system, it adds nothing to the game to force the ship to fly to the edge of the system; the player is just sitting there waiting for the game to continue.



Suggestion:

Allow the ship to jump to hyperspace from any point in the system, and you could disable this capability while enemy ships are in the system to prevent people from easily fleeing pursuing ships with autopilot.

Evaluation

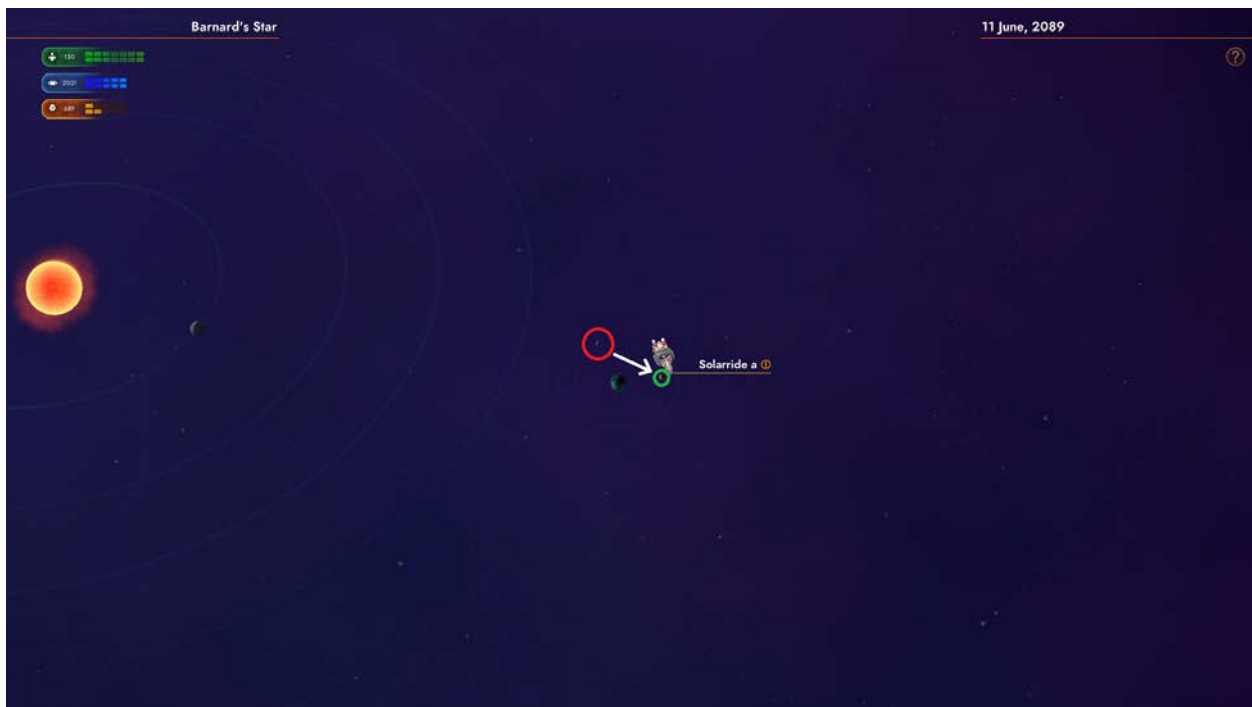
Efficiency of Play



Severity

OK/Excellent	Cosmetic	Minor	Major	Catastrophe
0	1	2	3	4

When leaving a planet/dialogue view, you are prevented from immediately entering another planet/dialogue view even when the ship makes contact, or the “Hail” button/key is pressed. This is clearly useful to prevent players from accidentally reentering the screens they just left, but is a bit annoying when the player is quick enough to get from one moon/ship to another within that time delay, only to be forced to wait for the time to pass.



Traveling from the red moon to the green moon, the ship is forced to wait, nestled against the surface.

Suggestions:

This is only necessary for collision-initiated interactions like planet landings on the same planet, and not for interactions that are initiated by the “Hail” command; allow such interactions to be initiated instantaneously.

Evaluation

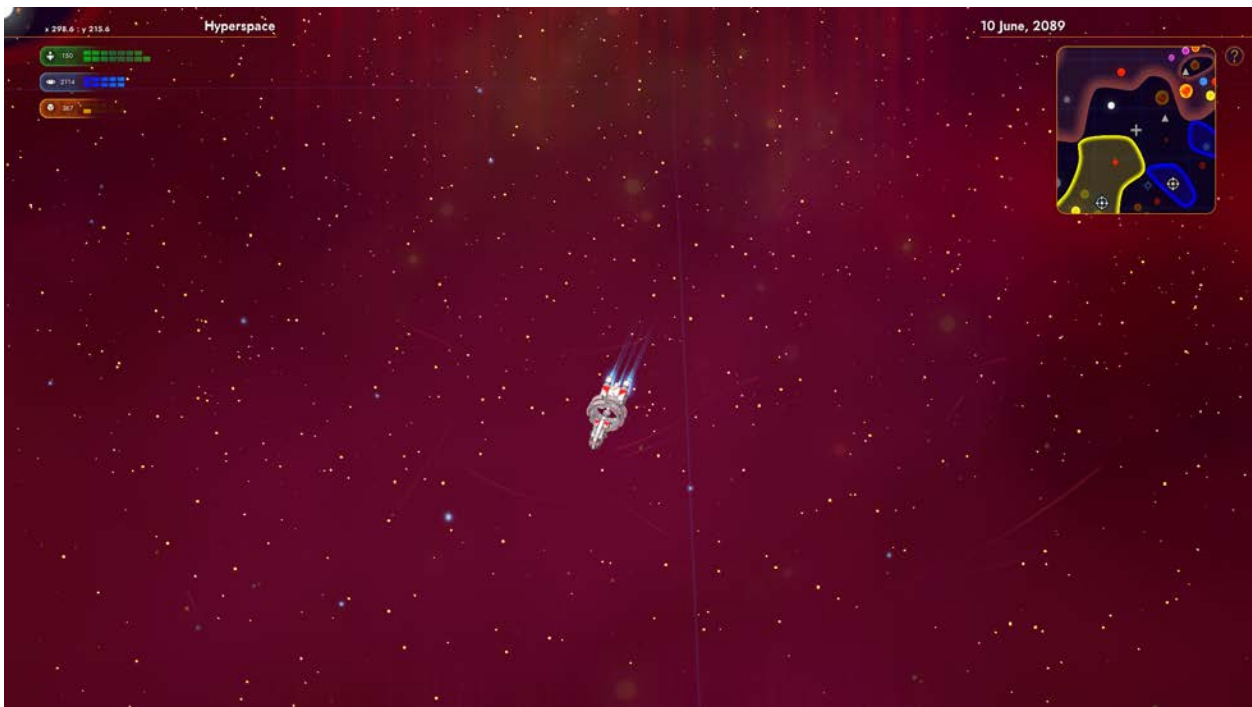
Visibility of System Status



Severity

OK/Excellent	Cosmetic	Minor	Major	Catastrophe
0	1	2	3	4

The “Turn and Thrust” controls for the ship work well enough for the keyboard, but don’t map as well to the controller, especially when the player must push the control stick up to make their ship go down or sideways.



“Why do I go down when I point the stick up?”

Suggestions:

I would suggest having the ship’s heading bound to the left control stick, pointing in whichever direction in which the stick is tilted, and keeping Thrust bound to the “X” button.

Evaluation

Efficiency of Play, Suspension of Play



Severity

OK/Excellent	Cosmetic	Minor	Major	Catastrophe
0	1	2	3	4

When the ship runs into a sun or gas giant, a landing window appears declaring landing to be impossible. This is a wholly unnecessary waste of the player's time.



Suggestions:

Just make the sun a solid impassable object. You might consider doing the same to gas giants.

Evaluation

Visibility of System Status



Severity

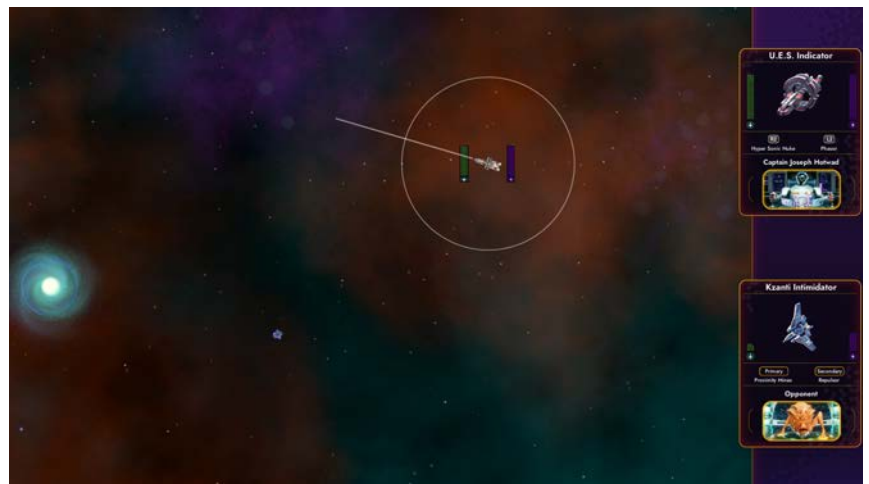
OK/Excellent	Cosmetic	Minor	Major	Catastrophe
0	1	2	3	4

In combat, it is difficult to keep track of your ship's heading and properly aim shots. The player also has to look away from the fighting ships to check their health or weapon charge on the right hand side of the screen.



Current

Suggestion



Suggestion:

A simple indicator would be able to convey important information such as ship/weapon direction, spread, and range, making combat much more intuitive and rewarding. Find a way to put important combat information near the ship so the player doesn't have to divert attention from the battle.

Evaluation

Match Between Interface and Game World



Severity

OK/Excellent	Cosmetic	Minor	Major	Catastrophe
0	1	2	3	4

This is less of a usability concern, but I personally think it would be a positive change for the Starbase A.I.'s vocabulary and memory to gradually improve as the player discovers more Starbases, both because this would help convey progress of their discovery over time, and because the [CIVILFAREWELLLNOTFOUND] joke gets a bit old after too many visits.



Suggestions:

Have Starbase vocabulary gradually improve, perhaps learning new but incorrect/rude/funny words and phrases before eventually getting everything right.