# Changes in 1.1.8.1 "Fleet" (October 31st, 2023):

The "Fleet" update includes many improvements across the game, but focuses most on the area of improving fleet and ship behavior in almost every way. We've heard the feedback that there were still frustrations with how fleets and ships responded to certain circumstances, especially where manual orders and automation interact. We hope you will agree that this update is a major step forward in that regard, reducing player frustration and improving AI empires as well.

IMPORTANT NOTE: Among other important changes, this build changes how we build DW2 so that it should be more compatible with Linux/Proton, for those Distant Worlds fans who prefer to play DW2 on the latest Quameno-designed operating system. While Linux is not officially supported by DW2, this should make it quite possible to get it working. If you have been struggling with DW2 on your Linux systems, please give this build a try and let us know how it works for you!

#### **CRASH FIXES**

We continue to address a variety of crashes. Most are not seen by the player as crashes, but can affect the background simulation and cause other strange effects. Our monitoring of such events indicates that we've been making consistent progress and that 1.1.8.1 is the most stable build to date.

- fixed crash when generating ship design name
- fixed crash when ship unloads cargo
- fixed crash when resolving default mission for hovered ship
- fixed crash when cannot save game settings due to simultaneous file writes
- fixed a number of Stride rendering crashes
- fixed Selection Panel cycle item keypresses sometimes causing game to hang
- fixed rare crash when calculating model scale
- fixed rare crash when ship is picking up debris
- fixed crash when updating use interface control tooltip positions
- fixed rare crash when generating Hive ship
- fixed crash when fuel tankers evaluate refuelling targets
- fixed crash when assigning ship mission
- fixed crashes relating to mining prioritization
- fixed crash when rendering Message list
- fixed crash when repairing ships
- fixed a number of Stride rendering crashes

### COMPATIBILITY IMPROVEMENTS

- upgraded DXVK rendering option to version 2.3

### PERFORMANCE IMPROVEMENTS

While this section is short, we've improved performance significantly again compared to the Discovery update, especially in certain late game situations. We have more performance improvements coming in the next official update as well.

- fixed rendering issue in Selection Panel
- significantly improved general performance, especially in larger games and late-game when there are many ships

## FLEET AND SHIP BEHAVIOR

We had made many improvements to fleet and ship behavior over time, but it became clear that we needed a deeper dive in this area to make sure we were able to fully resolve the remaining reported issues. This turned out to be a major endeavour which took two months of development time as we went through every fleet or ship behavior-related issue in our backlog, but the result is fleets that behave much better for all manual/automated playstyle choices and also for the AI empires. The notes below explain in more detail all the significant changes, along with many minor tweaks and fixes.

# **Fleet Movement**

- improved fleet Move To missions so that:
- 1. complete Move To mission in timely manner
- 2. fleet ships move closer to target
- 3. fleet ships avoid colliding with one another and pushing each other off course
- 4. avoid excessive short-range jumps (especially when have hyperdrives with unusually low accuracy values)
- fixed fleet ships so that can always rectify jumping inside planet, even when various edge-case factors could previously prevent this
- fleets assigned to refuel and repair will now consider ships with damaged components to also need repair (not just destroyed components)

## Fleet and Ship Engagement

- ships in fleets with Prepare and Attack missions now immediately begin their attack against the specified enemy target when the target is at the waypoint location and is already attacking any other ship in the fleet

- fixed fleets sometimes attacking targets beyond their engagement range
- fleets and military ships now better at breaking off attacks against enemy fleets that jump away and are thus now beyond their specified engagement range
- ships now determine optimal attack range by including ranges from all of their weapons (ion, intercept, area, etc) when have no main weapon types (standoff or close-in)
- military ships in fleets are now more careful in threat evaluation when determining whether to upgrade attack mission against a target to use their entire fleet to ensure they always honor their fleet engagement range
- fleets can now only assign Capture missions when at least one of their ships has current active assault pod availability
- ships are now better at retaining their Capture mission when other ships at the location have current assault pod availability but they do not further improvements to Capture mechanics are coming in a future update.

# Fleets and Enemy Target Assignment

- fleets auto-assigning attacks against queued enemy targets now consider targets in queue order, instead of proximity to fleet, this will make fleets more responsive to player queued targets
- fleets auto-assigning attacks against enemy targets (queued and non-queued) now make extra considerations for refuelling on way to target, thus extending their attack range
- improved fleet willingness to persist with attacks against defined attack point instead of getting unnecessarily distracted with other targets
- fixed edge case where ships and fleets were sometimes assigning futile attack missions against targets that were in hyperspace and were too hard to intercept
- improved willingness of manually assigned fleets and military ships to stick to current attack target (instead of switching to other target), thus improving ability to focus fire on enemy targets
- prevent individual fleet ships sometimes recklessly attacking targets that are too strong for them to handle
- improved fleet retreat evaluation no longer prematurely break off attack while en route to target. Will also consider other nearby fleets en route to same location
- automated fleets will now always remain at their current location to defend if an incoming enemy fleet is detected for that location
- now properly handle threat evaluation at deep-space locations outside systems so that enemies more likely to attack each other
- improved accuracy of range calculation when fleets evaluate whether to attack target, thus more likely to attack

- changed Defense Fleet behavior so that will now defend locations within range even when system is not part of empire territory (e.g. base outside territory)
- ensure automated fleets only investigate dangerous locations when have targets that they could conceivably attack (i.e. are enemy or unknown)

# **Invasion Fleets**

- improved invasion fleet evaluation of defending strength when at target colony, will wait until other attack fleets clear target if necessary
- troop transports in a fleet will now hold off loading further troops once they have adequate troops to invade their target colony (attack point). This makes invasion fleets more generally responsive and available for invasions, especially when have troop transports with large troop capacities
- troop transports in a fleet no longer unload troops at vulnerable frontier colonies, but instead focus on loading adequate troops for their invasion target. However troop transports which are not in a fleet will still ferry troops to vulnerable colonies to fulfill army template requirements
- improved accuracy of enemy strength evaluation at invasion target so that invasion fleets more likely to invade colonies
- automated troop transports bringing reinforcements to invaded colonies will now cancel their mission as soon as the colony is conquered (instead of continuing on to the colony). Alternatively, if they assess that they might be able to retake the colony with their own invasion, will instead change their Unload Troops mission to Attack the conquered colony

## Fleet Formation and Organization

- improved Fleet Topup function so that trim correct number of excess ships based on fleet template (when 'Trim Excess Ships' is enabled)
- improved fleet lead ship selection so that more focused on ships in main body of fleet
- lead ships for fleets are now always selected as strongest ship at location with majority of fleet ships, i.e. try to avoid changing geographical fleet center when changing lead ship
- improved ability of newly-added fleet ships to move to fleet location
- properly review and clear all relevant fleet escort data when a ship leaves it's fleet (fleet ships avoid escorting ships that have left the fleet)

## Fleets and Capturing and Raiding

- ships in fleets with Capture missions now check for incoming fleet ships with assault pods (not yet at location) before completing mission due to lack of assault strength
- successful raids on research stations or other bases now better at falling back to money bonuses if target empire has no research projects to loot that raiding empire has not already researched

#### **FUEL TANKERS**

There were still reported issues relating to fuel tanker behavior, both as it relates to fleets and for individual fuel tankers. We also went through all those issues to make sure tankers are a more useful addition to your forces.

- fuel tankers in fleets now attempt to retrofit at the same time as their fleet to maximize their availability
- fuel tankers will now attempt to first completely refuel their fleet prior to retrofitting
- when fleet fuel tankers are distant from fleet ships, prior to refuelling a fleet ship they will now check whether another fuel tanker for same fleet is closer than them and can handle refuelling in more timely manner
- improved fuel tanker ability to avoid dangerous locations when accompanying fleets
- fuel tankers no longer attempt to refuel ships with any kind of attack mission
- fixed fuel tankers sometimes not loading fuel when empty

#### DANGEROUS LOCATIONS

There were cases remaining where some ships did not handle dangerous locations well. This update should resolve all of those cases.

- ensure dangerous locations exclude threats that are not really dangerous, e.g. bases from unfriendly factions that are not currently at war with
- freighters no longer attempt to fulfill resource orders from dangerous locations (e.g. Kasim)
- passenger ships always exclude dangerous locations when assigning migration or tourism missions

## **CONQUEST AND CAPTURE**

In certain cases, the empire logic would not update its knowledge quickly enough after a new world or mining stations was captured, leading the invading/attacking fleets and ships to have a long trip back to another location to refuel when they should have refueled on the spot. By forcing an update of the empire logic when such events happen, we should no longer see that issue.

- now immediately review refuelling, repair and construction locations when conquer colony so that any ships or fleets can immediately refuel or repair there
- now immediately review refuelling, repair and construction locations when capture fuel mining station or spaceport so that any ships or fleets can immediately refuel or repair there

### **STARFIGHTERS**

- fixed fighters sometimes not properly landing at colonies (planetary fighter bases)

#### **UI IMPROVEMENTS**

We've included a number of UI improvements related to ship and fleet and ship design management as well as the management of troops on colonies to reduce frustration especially for those using more manual play options.

- now allow ship multi-select in most Civilian lists: All Civilian Ships, Freighters, Passenger Ships. This means can multi-select any ships in list using shift- and ctrl-click and then mass-scuttle using the Scuttle button under the Selection Panel
- Selection Panel now shows more comprehensive information on current Assault Pod strength for selected ships (when has assault pods) and fleets, thus helping to determine when a fleet or ship can undertake a raid or capture mission
- improved display of current assault strength in Selection Panel when ship is attempting to capture an enemy target
- manually upgrading a design will now automatically disable Auto-Upgrading for that ship hull
- manually setting troop garrisons will now automatically disable auto-garrison for the colony
- fixed cycle next/previous key-presses sometimes not moving to next item (cycle colonies, cycle exploration ships, etc)
- selected ship or fleet no longer unintentionally receives mission assignment when right-click on navigation panel in Research Screen (click through issue)

## MESSAGES AND NOTIFICATIONS

- fixed messages sometimes being prematurely expired because other filtered messages were being included in calculation of remaining screen height. This should resolve the sudden notification stack wipe issue.
- fixed some premature message notifications about Hive fleet sightings

### SHIP DESIGN

- added explanatory tooltip to Load Designs button, outlining how this works
- fixed Load Designs button often not loading designs even when meet tech requirements of current game

### **EXPLORATION SHIPS**

- fixed exploration ships sometimes waiting near sleeping Hive ships without reassigning missions

### **PIRATES**

- fixed multiple messages when pirate faction destroyed
- fixed pirate ships acquired from destroyed pirate factions sometimes then switching to other pirate factions

### **TROOPS**

- automated troop recruitment now focuses on recruiting one troop at a time on a given world, completing recruitment of any existing troop before queuing a new one, thus minimizing costs

#### **EXPLORATION**

- system map info from salvage now properly explores all locations in system to at least level 1

### **DIPLOMACY**

- fixed defeated empires sometimes being included when honoring defense treaties
- fixed some faulty requests to honor defense treaties when already at war with attacking empire

# **RESEARCH**

- fixed repeatable tech research for planetary facilities and ship hulls only applying most recent repeatable tech changes
- further tweaked research priorities for automated research so that AI factions are better able to pursue and use all tech
- fixed ship hulls on tech tree (e.g. fighters) always resolving to human race hulls when research project is disallowed for player's race

### **GALAXY MAP**

- Refuelling Location icons in system badges now reflect current fuel levels (i.e. they will not show up if spaceports/mining stations are currently out of fuel) to help decide on construction/refueling orders from the galaxy map level

### **GALAXY SETUP**

- added new game startup setting Hostile Races Near Player: allows specifying how many neighboring factions are hostile to the player. This can be used to effectively increase game difficulty
- added explanatory tooltips to Default Events in Start New Game screen (Victory Conditions step)

### **CONSTRUCTION**

- increased repair speed for very high tech abandoned ships (e.g. Planet Destroyer) so that can complete in reasonable time and use in the game

### **CHARACTERS**

- ensure all automated admirals with fleets are always onboard the lead ship for their fleet
- removed Uninhibited as a positive character trait, thus no longer gained from Rivalry Gizurean event

#### **COLONY MANAGEMENT**

- can now abandon a colony, making it independent (action button under Selection Panel)
- Abandon Colony button is disabled when the colony is your empire capital or is the last colony in your empire

### **COLONY POPULATION POLICIES**

- implemented first pass of automated colony population policy settings for Resettle policy when unsuitable races at colonies
- fixed double-up of population policy races when reset colony population policy after conquest
- ensure reset colony population policy to default (assimilate all races) after invasion or rebellion

#### COLONIZATION

- tweaked automated colonization so that Colony Ships with preassigned colonization targets now seek other targets if original target becomes uncolonizable for some reason
- Colony ships that start with a specified load race will now only load that race (even when load colony population composition has subsequently changed), helping to ensure suitable races are used for new colonies
- differentiated Queue Colonization buttons to more clearly indicate when using an existing colony ship to fulfill a colonization mission

#### **GAME EDITOR**

- changed game editor so that removing a planet now properly also removes entire planet location (all related moons, asteroids, ships, bases), thus avoiding orphaned items
- fixed faulty Add Bonus dropdown in Game Editor

### DATA AND STORY IMPROVEMENTS

Please note - Data and Story improvements are only available when starting a New Game.

# Base Game

- Mortalen story event "Destroyed Boskaran Troop Transport" has a lower discovery level so that players don't colonize the world prior to finding the event which makes it independent
- now exclude dormant pirate factions in various situations (e.g. Kasim pirates) relating to pirate events
- lowered dormant junkyard pirate base tech levels (prewarp home system events) to ensure they are not stronger than active pirate factions
- now prevent pirates from accidentally investigating ruins in rare cases
- fix for issue with ancient ackdarian spaceport ping
- updated weapon intercept targeting values for all weapons
- updated planetary defence weapon values, especially weapon effects to make sure planetary defense weapons are visible when firing at enemy ships near the planet

## Ikkuro / Dhayut DLC

- Ikkuro "Web of Destiny" storyline has been rewritten: it should now be possible to lower the odds of Damazy rebelling if you put the effort in with money or research
- updated Ikkuro fusion beams
- Various minor ship hull, model, data and event fixes to both DLCs

# Quameno / Gizurean DLC

- added description for Scouring reputation impacts (not just 'General Incidents')
- Degenerate Gizureans story world has been reduced in quality to prevent it from being overpowered
- Quameno story project no longer stolen
- Kasim population no longer disappears suddenly
- Various minor ship hull, model, data and event fixes to both DLCs