Distant Worlds 2

“Stellar” Update

Changes in 1.2.0.5 (January 30th, 2024):

*The “Stellar” update brings many major improvements for gameplay and game quality. One focus is on greatly reducing crashes and launch issues. It also significantly improves performance both in scenes and the galaxy simulation, improves pathfinding issues and further improves fleet and ship behavior beyond the “Fleet” update level. “Stellar” greatly expands the new policy system to provide player guidance for automated research and ship design priorities. It also adds a new measurement tool, improves the AI, fixes an issue with pirate tech progress, improves modding support and adds various balance and gameplay improvements for the recent DLC factions.*

CRASH FIXES

- Fixed crash with some game controllers

- Now properly extend path finding system time array when add new star system to galaxy (either via game editor or game event), thus resolving all of the IndexOutOfRange errors in various situations

- fixed a possible crash on starting a new game

- if any 2D character animations fail to load, an entry will be written to the session log and a crash dump will be generated but the game will no longer crash

- fixed rare crash when changing Steam overlay size during user interface rescaling

- fixed crash when calculating population amount

- fixed crash when drawing location badge

- fixed crash when applying fleet tactical settings

- fixed crash when removing star system in game editor

- fixed crash when loading weapon billboard textures with faulty data

- fixed crash when resolving empire color from flag image with faulty texture file

- fixed crash when removing 'pinged' items from galaxy map

- fixed crash when obtaining research project definition

- fixed crash when determining scientists at research stations

- fixed crash when getting resources at planet

- fixed crash when ship reviews fleet escort position

- fixed crash when reviewing colony events for main view header

- fixed rare crash when performing research or making trade offer

- fixed crash when retrofitting ship

- fixed crash when determining research modifier with faulty mod data

- fixed crash when drawing ship damage report

- fixed crash when determining resource priorities

- fixed crash when determining fleets to attack target

- fixed crash when finding nearest neutral location

- fixed crash when could not access SessionLog file

- fixed crash when generating graphics node for missing planet

- fixed several fleet-related crashes

- fixed a possible crash on starting a new game

- fixed crash when attempting to find the nearest unthreatened location for an empire

- fixed crash when fleets check if they have an attack target

- missing ship summary will no longer crash victory condition checks on loading a saved game

- fixed a difficult to reproduce per-location weapon effects desync related crash

COMPATIBILITY AND LAUNCH ISSUES

*Between the various crash fixes and compatibility/launch fixes, we hope this update will fully resolve any remaining rare “DW2 will not launch” issues.*

- Further improved support for HDR by hopefully insuring that Windows’ AutoHDR is off and not interfering with DW2. If enabled, Auto-HDR could cause a crash on startup.

- if any 2D character animations fail to load, an entry will be written to the session log and a crash dump will be generated but the game will no longer crash

PERFORMANCE

*The “Fleet” update had some performance regressions relative to the “Hyperspeed” update, partly because of the improved fleet and ship logic. This round of updates entirely resolves that performance regression and improves performance even further.*

- major performance improvements for late-game and large galaxies (2000 stars)

- extensive performance and memory optimizations, especially in very large battle scenes with many ships and fighters

- reduced memory pressure in a number of ways, thus reducing .Net garbage collection pauses

- path finding (and path timing) performance improvements

- fixed an arbitrarily long delay on updates of explorer ships mission assignment because it doesn't need to grab a lock on pathing info anymore

- general performance improvements - locking is now cooperative

- reduced memory garbage generation when operating on shared and indexed lists in general

- reduced memory garbage generation when calculating stock levels

- visibility system related performance improvements

- rewrote lock-heavy 'nearby orb' check used by selection panel for in-system ships getting a background image

- late game performance improvements (time reduction, partitioning) to economy and ship pathing systems

UI IMPROVEMENTS

*The new measurement tool is the most exciting UI improvement in this update.*

- added a new distance measurement ruler tool, to activate hold shift and left click, release left click but hold shift and drag

- holding shift will also turn on distances in various hover info cards and mission descriptions

- added summary of game starting situation to right of Load Game file screen (click on a savegame in the list to see a preview summary of the game before loading)

- Select Ship Hull screen now includes fighters when filter is set to 'State Ships' (creating a new ship design)

- minimum and maximum effect rate sliders added to options menu (set both to 1.0 for always pretty effects)

- fixed missing ship and base symbols at location zoom level

- clicking on item in message list view (at screen far right) now more often opens related screen, e.g. clicking on completed spy mission will open the spy detail screen, ready to assign a new mission

- updated Hint text for hotkeys to properly indicate using Ctrl-# instead of Shift-#

- Fixed instances where single ship was sometimes the only selectable item when zoomed into location view

PATHFINDING

*We’ve resolved the most commonly reported pathfinding issues in this update. Note that pathfinding still strongly prefers using systems as waypoints and this is intended, but we plan to revisit this to add more support for deep space waypoints in the future (though at some cost).*

- improved jump pathfinding when start or end point of journey is in deep space (outside system): skip unnecessary systems at start or end of path to minimize number of jumps

- improved jump path finding so that less likely to have very long indirect paths to destination unless no other route. Now also more willing to plot path that passes through nebulae when required

FLEETS AND FLEET BEHAVIOR

*We’ve continued improving Fleet and Ship behavior, based on feedback after the release of the “Fleet” update. We hope this update will address all remaining issues. Please note that many reports we get on fleet and ship behavior are still because of player tactical and policy settings conflicting with their expectations– please check and understand those first to make sure your fleets and ships do what you would like.*

- extended functionality of Fleet Topup action button so that will now build new ships of up/downgraded roles for missing ships (from fleet template) when cannot build ships of higher roles (no hull/design). But only when fleet template has 'Ship Role Up/Downgrade' enabled and the template items do not designate a specific design (i.e. any design for hull or role)

- fleets are now more careful to check whether first need refuelling before returning to home base

- improved fleets attempting to avoid risky attacks against stronger targets when other strong fleets already assigned to target

- improved fleet coordination with fuel tankers for refuelling in various edge cases

- fleets now better at maintaining cohesion when attack target jumps away and fleet ships attempt to track jump (fleet tracks jump as whole and all ships either succeed or fail with tracking). This avoids lone fleet ships attacking target while rest of fleet fails to jump

- fleets moving to non-specific destination (i.e. galactic coordinates instead of specific planet/base/etc) will now jump directly to destination when within jump range and not passing through nebula

- fixed fleets sometimes continuing attack mission against target after becomes part of their empire

- no longer disable retrofit fleet button when construction yard wait queue is too long (but include warning in button tooltip)

- Fixed fleet topup button sometimes not working properly

- rebalanced automated fleet creation, now allow more fleets overall and more defense fleets

- tweaked how automated fleet home bases and attack points are selected so that empire has better offensive and defensive posture

- improved fleet topup so that distant ships are better at travelling to fleet location and then joining the fleet

- Fixed fleets sometimes incorrectly overriding engagement range to attack dangerous locations when they are in the same system as the fleet

- invasion support fleets (Attack, Raid) will now take on other targets when arrive at enemy colony but have no invasion capability and invasion has not yet begun (invasion fleet has not yet arrived), i.e. will not keep reassigning pointless mission against fleet Attack Point

- improved Invasion fleet willingness to invade other enemy colonies when not enough troops to prevail against main designated Attack Point

SHIP BEHAVIOR

- ships with low accuracy hyperdrives (e.g. Skip Drive) now more willing to perform short-range jumps to destinations within same location

- fixed ships sometimes getting stuck picking up debris when many other nearby ships

- fixed bugs in recent changes with jump pathing (e.g. Exploration Ships sometimes not assigning new missions)

RESEARCH AND SHIP DESIGN PREFERENCES

*Continuing the work started last year to allow more guidance for automated Design and Research, we have now added a new Weapon and Component Focuses section to Empire Policy settings. If you are not handling Ship Design and Research manually, this will greatly help you in prioritizing the automation's choices and making sure your automated research and ship designs share the same priorities.*

- This new section consolidates pre-existing preferred weapon family settings with many new settings that allow fine-tuning how research and ship design work

- Note that the alternate preferred weapon family settings have been removed to streamline the user interface for this section (e.g. 'Preferred Close-In Weapon Family 2')

- Can now control the level of each weapon category and when they are used

- Also now allows tweaking focus for fighter bays, hyperdrives, reactors, shields and engines

- Note that each faction has their own unique policy settings in this area, further differentiating their ship designs and that race-specific technologies still carry additional weight in terms of the automation's choices

- tweaked weapon component selection for research and design so that racial preferred weapon components and policy preferred weapon families work together better instead of conflicting, thus selecting the best weapon components for each category

- ensure designs that are changed in the Ship Designer also immediately refresh the cached design data for all ships that use the design

- improved automated ship design generation when specified ship hull has limited general bays, avoiding filling with unnecessary components when still missing reactors or other critical components. This is especially relevant with fighter hulls which may have very low general bay counts

- fixed some component types not being able to be added to design component bays

- fixed research project resolution to always properly retrieve by Id, not position, e.g. for event descriptions

- reduced cost of diplomacy research projects

AI IMPROVEMENTS

- tweaked AI determination of when empire is in economic shortfall (cashflow and cash on hand) and thus reduces ships and troops (when these are automated), i.e. less aggressive at disbanding ships and troops when economy cannot support to avoid overreaction to brief economic downturns

CONSTRUCTION

- improved order of automated military ship purchases so that try to evenly build ships for each role instead of focusing on largest roles first

- ships and fighters no longer take nebula damage (standard or ion) while under construction/repair or inside a hangar

DIPLOMACY

- peace offer messages now properly show any additional demands in main body of text (i.e. incentives to end war)

COLONIES AND COLONIZATION

- Fixed an issue affecting growth rate calculations. Colony populations now correctly calculate growth rates per race, so that less suitable races for the colony grow significantly slower (still affected by their base growth rate, funding and resources).

- automated colony ships loaded with a population that has no suitable colonization targets (e.g. abandoned colony ships with unusual races) will now unload unsuitable race to allow loading another race with viable colonization targets

COLONY CONQUEST AND TECH ADVANCES

- colony conquest tech breakthroughs (both standard and via Gizurean Scouring event) now exclude research projects that are specifically excluded for conquering race (for example, Gizureans will not get heavy armor as their hex armor directly replaces that) but this still allows race-specific techs from other factions to potentially be recovered

- prevent tech breakthroughs from conquered colonies when previous colony conquest was very recent, i.e. no conquest tech unless conquest unhappiness from previous invasion has completely expired. This also applies to Gizurean Scouring event.

- research project selection for colony conquest techs and tradeable techs now excludes projects that are not EnabledByDefault (unless specific to race), thus properly excluding story-related techs that should never have been part of these rewards

- colony conquest no longer provides only partial progress to research projects. Will now always provide complete tech breakthroughs when it provides a reward

- fixed colony troops sometimes mistakenly ending up on invading side

WAR SCORE

- rebalanced values of bases so that war score is more realistic. Specifically: greatly reduced defensive base values, reduced spaceport values, increased research station and resort base values

- fixed bug where troop destruction was being overcounted for war score

PIRATES

- slow down rate of pirate tech progress to fix the issue in the Fleet update where pirate factions could end up increasing their tech level far too quickly

- prevent pirate factions from salvaging tech from debris, which combined with the tech progress adjustment should fix the situation where pirates had started advancing in techs faster than empires

- reduced starting tech level of Airless Wanderers pirate faction, which had accidentally been set too high

GAME EDITOR

- game editor now allows removing debris and other small items at a location

- game editor now allows removing abandoned ships and bases

MODDING SUPPORT

- now include any additional flags from mods in player flag selection dropdown in Start New Game screen

- added --skip-splash option to skip the splash screen to help power users and mod devs who find it annoying

- added --new-game and --continue command line options for power users and mod devs

- mods should be able to use suffixed GameText.txt (e.g. GameText\_\*.txt) files that append new entries without replacing the whole GameText.txt

QUAMENO AND GIZUREAN DLC

- Quameno “Integration Studies” event scaling changed to make it a significant penalty under typical circumstances.

- when triggered, the Quameno event 'A Piece of the Puzzle' now also adds a +10% population growth rate bonus to your empire for one year (in addition to the existing tech breakthrough)

- Gizurean “Waste Nothing” event was fixed to no longer prefer completing the current queued tech most of the time, but to function as intended, which means it will pick randomly from any more advanced techs on the retired/salvaged ship and only award tech boosts within those categories, not necessarily full techs. This will allow it to function as a good way to catch up tech-wise, but not as a way to race ahead.

- Gizurean “Scouring” event was fixed to function as intended, which means it will pick randomly from any more advanced techs on the conquered planet and only award new techs within those categories. If the planet’s previous owner had no more advanced techs, Conquest and Scouring will not award techs. This will allow planetary conquest and Scouring to function as a good way to catch up tech-wise, but not as a way to race ahead.

- Gizurean “Tribal Conflict” event has a more significant happiness penalty.

- fixed overlapping research projects in tech tree for "Study Degenerate Gizureans" and "Shakturi Design and Behaviour"

IKKURO AND DHAYUT DLC

- minor fixups for Damazy story text

- Ikkuro “Secrets of Life” event adds additional population growth.

- some minor changes to Damazy and also to the defense based around Kasim