Shadow Empire

Read me File – 28th May 2026
Version 1.32.264

Welcome.
Thank you for playing Shadow Empire™! We are always looking for ways to improve your gaming experience. For the latest information on the game, please go to the Matrix Games web site at matrixgames.com.

Below you will find the latest and greatest information on Shadow Empire™. Information in this document supersedes that in the official game manual.

Troubleshooting:
Ensure that your system meets the minimum system requirements. These are found in the game manual. Also, ensure that you have the latest video and sound drivers available for your system and that you have upgraded to the latest version of DirectX from Microsoft. The vast majority of reported problems are resolved by upgrading all drivers and DirectX to the latest versions.

If you are still experiencing problems with the game, please use our Help Desk at matrixgames.com/helpdesk or post in the Shadow Empire™ Support Forum at matrixgames.com/forums. Please provide as much detail on your issue as you can.

To obtain optimum game performance, close all other applications before beginning a game.

Asterix (*) at end of item means it requires a new game start to go into effect.

Change History:

v1.32.264 – 28th May 2026

- Fixed CTD with turn processing due to an Artifact generating Asset being lost
- Fixed CTD with a game load causing CTD
- Fixed issue with blocked Scrap Stratagem
- Fixed issue with target selection conditions for playing Master Spy Stratagems
- First of all: Big thanks to “ydmatrix2” from the Matrix Forums! Thx!
- If playing Limited Political Difficulty you will not have Virtus Crisis Events anymore, neither Minor nor Major. This will make it much easier to stay longer in the same Political System. *
- Capped the text for Commander in extreme HQ Name cases in the bottom Map UI part (sometimes was too long)
- Fixed Scavenger Team Unit Feat. Also during running games.
- If Task receives 0 BP then no skill rolls are made now
- Operational Command Roll is now +25 for Martial Tournaments Regime Feat
- Administration Roll is now +40 for Administrative Competence Regime Feat
- Fixed combat mechanic to avoid a freak 0 attack value hit (because defend value rolled 0 as well)
- Fixed Natural Relation Calculation to include salary effect from Apparatchik Feat
- Fixed error with Salary payments to Rank #1 Leaders (it was fixed to 10 Cr instead of Salary Setting * 5)
- Fixed MTH Policy Decision that was not showing all options
- Made fixes to SSP production with SSF Assets, especially concerning those related to Fist Profile
- Fixed the Political Picture when playing without Advanced Politics, but with NewGfx. (this time added the fixed gfx files)
- Hotfix: Fixed Virtus effect of Syndic Computer Unplug (also for running games)
- Small fix to I/O Hack Stratagem *
- Fixed capped modifiers >=100% in top of combat resolution popup.
- Fixed a glitch where Arachnids (and others) could get a more generic troop type than they should have gotten.

- Fixed Warrior Ideology Regime Feat to work. Also in running game
- Fixed Circuitry I-IV Regime Feats to actually give Industrial Public Production Bonus (it didnt do that). Also in running game
- Also fixed Circuitry Regime Feat mouse over to specify its “industrial” public bonus only.
- Assured proper visible logging of all 3 Compu Upgrade Regime Feats.
- Fixed glitch with appointment making relation drop under 0 (and related CTD with drawing portrait gfx)
- Fixed Rarity modifier for Pol.Stratagems with Syndic Democracy
- Made fix to Cult Stratagems that were half of them missing a validation rule *
- Made fix to Interface that avoids exploit with playing Unit Feat Stratagems
- Made fix to some Political Stratagems that target another Major Regime: If not Diplomatic than there is no play limit.*
- Minor fix to combat logs (secondant skill increaser log too many)
- Fixed a Vidcom NewGfx rendering bug when playing without Advanced Politics.
- Might have fixed the rare crash when generating Colossus Class Planets (added security code)
- Also might have fixed a rare crash during watching AI move (added security code)
- Fixed “Compu” Maintenance Stratagem. Failure roll now doesnt deactivate it. *
- Fixed issue with savefiles while Compu in Maintenance Mode. (switched to Democracy)
- Made some fixes to Leader Relation Decision impacts with Feudal Level.
- Made big fixes to AI playing with Oceania Rules where it has chosen not to expand overseas due to local issues.
- Made a fix to the AI playing with Oceania Rules that started on a small island next to huge landmass
- Fixed Bottom UI for when SSF and Delegation at same time
- Crusade now more weighted to be declared against Regime you have lower relation with
- Fixed Rarity Modifer for Fanatical Autocracy
- Fixed mouse over for Apparatchik Score *
- Fixed some issues with Retract Law mouse over and Leader speech bubble
- Special Open Beta Testing required: For Raising new Formations… make sure nothing glitchy happens.
- The low percentage chance (5% or 10%) for the ideological road becomes more lenient after 20 (for 5%) or 10 (for 10%) rounds (when you should have rolled it by now).. Eventually going to 20%.
- Fixed a number of Stratagems that were detaching Advisor from the wrong Leader.
- AI no longer destroys road during first 3 rounds after a Pol. system change.
- Made a fix in AI new SHQ creation and SHQ - Zone assignments.
- Fixed -1,-1 Leader reporting when transferring from Zone to SHQ
- Fixed -1,-1 when transferring Items from SHQ with no Leader
- Fixed Powerbook Stratagem, can now also be played on the Director *
- AI better assigns Panzerhead.. If possible.
- Made a fix in the combat algorithm that made some Unit Feats give too much bonus
- Made a fix to sometime doubled logged Leader relation change after Decision
- Made a fix to Model table in MNG tab and fixed combat/oil sometimes too high due to tech effects not taken into account.
- Fixed National Recruitment Strat feedback to show correct TOTAL recruits recruited.
- Fixed a bug with Raising New Units

v1.31.18 – 27th April 2026

- Fixed the thing that could cause a Character Profile to receive a double Profile (like 2 times autocracy)
- Fixed S&S Editor (again!! Apologies for this)
- Fixed issue with Stratagem preview difficulty with NATION Stratagems being wrong
- Fixed a CTD related to removal of a Dynastic Faction
- Tuned down max Trader contribution to the Impose Stratagems

- Some minor fixes to other Stratagems
- Fixes to the cleaning up of SSF Assets belonging to Leaders that are no longer with you.
- Fixed Economic Flexibility Regime Feat to be actually needed to Denationalize (instead of Property Agnosticism).
- Private Economy Stimulation Law now giver 100% bonus on Private Investment (instead of giving 50% bonus)
- Fixed issue with assigning Commander directly to nonCommander Job.
- Harmonized the old Prestige rules to give no surprises when appointing to new Job (and promise for better job)
- Fixed a number of decisions with AI Major Regimes (like release spy).
- Fixed a number of oversights that allowed you to get too much info on enemy units you do not have total recon on.
- Fixed “Peace Conference” Stratagem
- Made fix to Crime Syndicate to no longer destroy Assets that are still in construction
- Fixed some Decision events switching target character when reopening the Decision
- Fixed some weird Leader ghost assignments to OHQ/SHQ after revolution
- Causing the ghost leaders has also been fixed for revolutions and stratagems and decisions alike
- Ghost Leaders get cleaned up upon load game
- Fixed making a New Makeshift Zone crash.
- Strat Rarity Modifier fixed for Meritocracy, only Cabinet Members taken into account now
- Fixed a Provoke War Decision against yourself.
- Fixed glitch with found Artifact not appearing in Vidcom (or in hand)
- Fixed some Stratagems like Altruistic Resignation to replace Secretary if removed, if nobody in reserve Pool you will get a new Char as secretary.
- Fixed Coopt Minor Elite and Call to Submission to not work on Minors incapable of Diplomacy.
- Fixed bug with Abort for Merge Zone Order not being recognized!
- Fixed an extreme slow down with a Nomination Decision (and possibly other operations where Internal Faction Ranking has to be looked up)
- Replaced Vidcom FanaticInternalTerror by a fixed one
- Improved Game Reactivity/Processing with Scrapping Stratagems for big pile
- Made some fine tuning to the Recruit Veterans Stratagem
- Fixed recently causes bug with S&S editor start up
- Fixed a hanging AI resolution bug
- Skill use for Mediation Training Strat changed from Diplomacy to Leadership *
- Fixed Political General Unit Feat to actually work now.
- Fixed an accounting leak in Corporate Story Module that caused divergence between reality and treasury cashflow report.
- When setting userdebugger.txt to true and flagging Debug Mode in game start setup, the game will generate a lot of log files on the AI decisions. This could be of interest to modders. Or people who have too much curiosity. Wink wink.
- Added an experimental option to add a 3rd “true” line to direct2d.txt to allow some sharpening & contrast to be applied during upscaling on 200% DPI mode (like notably when using a 4K screen res).
- Made SSF Transformation more rare and only if the previous SSF is significantly less liked than the new one.

v1.31.17 – 14th April 2026

- Fixed glitch where in some cases Leader’s Credits (wealth) could go negative.
- Fixed that you can Nationalize Private Assets from Dynastic Fief (Now no longer possible, except logistics)
- Added that you cannot Disband Private Assets in Dynastic Fiefs
- Fixed double Gov assignment in running games (upon load game)
- Fixed the Decision Tab glitch to not allow its variable being corrupted by calling a Leader while the Tab is open and then making the Decision that was open (caused double Gov bug)

- Fixed Meritocracy Hail Stratagem to only apply to only Faction Members now
- Some fixes to Extension utilisation of Compounds during non Aristocracy systems/Factions. The 7 “Household” Extensions can be bought during a non Aristocracy System, but they will not all have an effect. (might still work a bit more on this later). All Extensions can survive the end of Aristocracy and can still have an effect in a different system, albeit without the Primus Inter Pares provides to all rule. A Dynastic Faction outside Aristocracy is not what is has been and more fragmented.
- Fixed opening menu newGfx illustration.
- Fixed base game Stratagems that give Credits to Leader to actually increase their Wealth. *
- Fixed the bug that Commander level troops lost/killed were not properly stored and the the military rank calculations were all the same.
- Fixed bug where Tribute was not paid by Vassal (while logged as paid in the treasury report)
- Fixed bug with Governor building Compound in the Capital instead of own Zone.
- Fixed Syndic Upgrade Stratagem (was only selectioning RAM). *
- Fixed Syndic Upgrade Stratagem to actually tell you what Circuitry was upgraded upon a success.*
- Fixed Syndic Upgrade Stratagem to delete the previous Circuitry Level Regime Feat. *
- Fixed Interior Council Task Priorities Decision under Syndic Computer.
- Added mouse over in MNG Model Tab to let you know to get access to a new Model Type you also need to have designed at least 1 Model from its Model Type precursor.
- Fixed missing mouse over in Vidcom when duplicate Stratagems
- Fixed Stratagem Roll preview to include always Leader Feat effect
- Added top Republica testers to ingame Credits page
- Fixed preview of Minimum Law Costs with Law Vote Decision
- Allowed Resign in multiplayer even when game is already declared over
- Fixed Political Difficulty setting to nothing when toggling “saving during turn” option
- Mouse overs in the text bottom part of the Vidcom now work as well
- Fixed an algorithm error with spending in public sector being severely less than it should be *
- The workers (and soldiers and Leaders) spend part of their Credits with the Traders to buy luxuries. This NOW also counts towards Virtus loss due to Luxury. *
- Private / Public buying from Traders now will buy more service related things to the Items bought. In gameplay terms this leads to lower reduction of Trader Item Inventories, but same expenditure. Will help quite a little bit with avoiding price explosions due to nonplayer buying. *
- For determining the price point of goods, the Traders now also look at what the Regime has in stock in its SHQs, because any good trader looks at other players on the market to judge the true price for buying (albeit maybe not for selling).*

v1.31.00 – 9th April 2026

- Added big rework of how salaries are spent. Nutshell: If bigger Public Economy: Not all money goes to Private Economy now. Part will go to Public Economy , Part will directly go to Traders. *
- Militia rules partially fixed and partially reworked to have fewer new Regular Models with getting new Units and Replacement Troops than before. Should play more or less the same as before.
- Miltia rules reworked to have Upgrades possible of Militia Troops to Regular Models *
- Game Manual has been updated to v1.30, it includes all rules changes since v1.27 and now includes the Republica DLC documentation as well.
- Victory Score Demand Type now takes Planet Size into account making it more feasible on larger Planets to comply
- Adding Recycling/Scav to Mining Assets Count for Demands *
- Chemical Team, Sandline Rangers, Mountaineer Team, Chemical Team, Secondant, Engineer Team, Champion, and many other Unit Feats now get a 1 in 5 ratio… To allow them to pop up in smaller Units as well, spontaneously or with Stratagem play. *
- Made some small nudges to especially female portraits to keep them younger looking a bit longer. I did feel they aged a bit faster than the men.
- Made fixes to the NewGfx Prefs SubTab , makes more sense now the relation between master

switch and the others
- Added Mouse Over to the Stratagem Pack Vidcoms.
- Mouse overs to show names of Units in Combat Setup Popup now
- You can now click on Leader Portrait from Faction Overview and return to Faction Overview and still have the same Faction selected.
- Fixed “Assault” Stratagem Gfx (stugIV lookalike)
- Vidcom gfx selection now uses fixed random selection so that the graphics are stable during the turn (unless debug mode active)
- No longer Vidcom posted when you invade a neighbour during your turn
- Maximum Worker salary now 60 mCr instead of 30 mCr
- Made fix to the Replacement Troops and Auto Reinforcement Algorithm for Militia troops.This should fix the issue where equipment destined for Militia piles up in the SHQ and never gets sent.
- Fixed Bug in Soldier Salary implications for Morale changes
- Fixed Debug Trade Log (next turn necc)
- Fixed issue with using SHQ Troops of same Model but different Veterancy Types to be used in Raise Formation.
- Fixed issue with multiUnit OHQ Troops Raising that the maximum take of SHQ Troops was often exceeded.
- Made further fixes to Militia Replacement Troops algorithms!
- Unification Stratagem (and some others) now initializes Zone Orders as well to avoid bugs later on
- Fixed issue with Radiation Cleansing bug. It now cleans as instructed according to the rules. No longer magic disappearance of all RAD.
- Fixed bad coloring of OOB/Model inside the Vidcom Screen with NewGfx

SPENDING IN THE PUBLIC ECONOMY

- From the Republica DLC release onwards, also in the Core Game, this is not all spent in the Private Sector anymore. This gives some more realism and makes it more feasible to have a more “managed” economy.
- The Credits are now spent in the economy as a whole. So a part of the salaries can also be spent in the Public Economy or directly with the Traders.
- The ratio of what is spent in the Private Economy is determined by the percentage of your total Populace that is Population (as opposed to Workers & Soldiers) and by the percentage of your total producing QOL Assets that is a Private Asset (as opposed to Public Asset). This ratio of salaries will be spent with the Private Economy and will become Private Credits.
- The remaining Credits will for a part be spent directly with the Traders. This part is determined through the formula: (Max(50(CivScore/2),Commerce Profile) * 0.75) % +25%. Or in other words much salary is spent directly with the Traders if you have a higher Commerce Profile (desire to consume luxuries) OR a low Civilization Score (lack of legacy QOL services that offer an alternative to “luxury” consumption). While much less will be spent directly with the Traders if you have a lower Commerce Profile AND a high Civilization Score.
- The other remaining Credits, not spent directly with the Traders, will be spent inside the Public economy. These credits will flow back into the state coffers. These last spendings inside the Public economy are not taxed with Sales Tax as you would be taxing yourself otherwise.
- For the Happiness and Morale effects related to salaries: The part of the salaries spent in the Private Economy acts as the part that impacts Happiness/Morale based on Salary difference with Population/Worker Salary. The part of the Credits spent in the Public Economy, or directly with the Traders, acts as the part that impacts Happiness/Morale based on Salary difference with an “ideal salary” that is 5 mCr modified for the cost of Items (inflation sensitive), the Monetary Constant. This modification of the 5mCr is only done for the part that is spent directly with the Traders.

MILITIA USING REGULAR MODELS

- Militia can use Regular Models that have been created a certain number of Rounds ago. It can get access when new Units are raised, when Replacement Troops are raised and sent to SHQ or when Upgrading takes place.
- In all cases a Regular Model is picked that is at least a number of Rounds old. 30 Rounds old by default. But lower for Feudal Level 2 onwards and reduced with 15 if you have the Militia Tech

Share Law enacted with Republica DLC.

- The actual Model used by the Militia is subject to randomization. But as a rule of thumb with Household Militia they tend to get more recent equipment available to them. The higher the Feudal Level the more pronounced this is. Without Feudal Levels the tendency will be to get older equipment, but one could always get lucky. When Republica's DLC "Militia Tech Share Law" is enacted the tendency for older equipment is gone, it will be fully random instead.

EXISTING MILITIA TROOPS UPGRADING

- The chance for a qualified Sub Unit to upgrade is 1%, but it is higher for Household Militia, here it is 2%, 4%, 6% or even 8% depending on Feudal Level. This chance to upgrade is increased if XP > 40. If XP in the 40s you get +1%, in the 50s you get +2%, etc.. The XP you need to get for receiving extra % chance is reduced for Household Militia, here the limit is XP>35, XP>30, XP>25, XP>20 depending on the Feudal Level.
- Large scale Militia Units (like Regiments, but mostly Divisions) will be a bit slower in obtaining Upgrades due to their command and control problems, internal organizational inadequacies.

NEWLY RAISED MILITIA UNITS

- The actual chance for a Sub Unit in a newly raised Unit to use Regular Military Models is 10%, but it is higher for Household Militia, here it is 20%, 40%, 60% or even 80% depending on Feudal Level.

REPLACEMENT MILITIA TROOPS

- The actual chance for a Sub Unit in a newly raised Unit to use Regular Military Models is 5%, but it is higher for Household Militia, here it is 10%, 20%, 30% or even 40% depending on Feudal Level.

MILITANCY SCORE

- The chances mentioned above are adjusted downwards for Militancy Score below 100.

v1.30.00 – 11th March 2026

- Added a whole bunch of newGfx Stratagems and Vidcoms for all Core Game illustrations. This will provide a coherent graphics style for the upcoming Republica DLC. Remember newGfx can be switched on/off in the Prefs Tab if you so desire to.
- Fixed char popup functionality (added in subversion F) upon recruit stratagem when scrap cards are present as well
- fixed some issues with newGfx Vidcom set to false (especially for multiplayer i think where it can be mixed settings due to different prefs files being used)
- Also added the char popup for receiving new Leader through Decision
- Shadow Advisor/Diplomat only get used for Stratagems + Decisions, not for Organizational Task Rolls
- Faction Leader's Job Prestige has more impact on Faction Happiness also for larger Factions (though effect still grows smaller if more members)
- Fixed issue with Vidcoms being old Vidcom gfx when loading saved games, might take a round or two to take effect
- Fixed Propellor Tech being present without airforce selection
- Some smaller fixes, including some spelling fixes
- Fixed issue with semiamphibic wrongly moving/attacking inland (leaving the coastal hex)
- Fixed Zone List issue with recon refresh (for spy strat)
- Fixed crash with Replacement Troops (JaroslavI)
- Morale hits are now larger (double) for attacker when suffering a PINNED hit or a RETREAT hit and rolling both a 1d50>XP and a 1d100>MOR. So attackers take morale losses more often when low/average on morale and XP, especially if both are low.*
- Made fixes to some buggy parts of the NewGfx Vidcom modding options (full new documentation will be released with Republica release moment)
- Moved the History Class "Mayhem Mode" to the bottom of the History Classes as my publisher's 25th anniversary is well in the past now. *
- Allowed Air OHQ to Disband
- Mass Driver Gun gets Sfx now (but only when designed with this newer version)
- Mass Driver Gun gets rendered now on Assault Gun (but only when designed with this newer

version)

v1.27.12 – 25th September 2025

- Seperated Empire Dashboard into Dashboard Report and Budget Report
- Fixed a glitch where regime could have no “national” and “nation” name.
- Fixed a glitch with Mayhem Mode where human player would have higher tech level as well.

FIXES

- Fixed Air Recon that was completely bugged giving way too much recon points
- Minimal Logistics in Hex. Added 1 logistical point on Zone City Hex if no logistics at all.
- Minimal Logistics in Hex. Also allowed constructing on Zone City Hex if no logistics at all.

FINETUNING

- Posture Stratagems are now twice as expensive to play, PP-wise.

MAYHEM MODE

- In preparation for the 25th anniversary of the publisher we are beta testing a new mayhem mode: The 25th Matrix Anniversary Mayhem Mode adds more treasures, smaller zones and more dangerous AI Minor and Major Regimes. It's basically a little birthday gift to the publisher. It is a mode that makes things extra tough on the player. For those looking for the ultimate challenge.

ATOMICS RULE TWEAKS

- Made Doomsday occur a little later with some Techs now more expensive to research: Atomic Missile x2, Fusion Missile x3, ICBM 10mt x4, ICBM 50mt x5, ICBM 100mt x6. This should provide a bit more buffer time. Especially on slower Tech settings.*
- Also increased ICBM 10mt radioactive item usage (from 30>50) (+60%), 50mt with (from 40->80) (+100%) and 100mt with (from 50-> 120) (+140%). *

GENERAL AI

- Made fixes to the AI attack algorithm to prefer closer units to target more
- Made fixes to the AI attack algorithm to not make the Protector unit join attacks (should lead to less non-defended important hexes)
- Made fixes to interpretation of Combat Matrix (will have consequences for if AI thinks its on offense or defensive on the lowest “tactical” level)
- Made improvements to the Protector Unit part as sometimes a key VP city in the frontline would be left open

ATOMICS & AI

- Made a fix to prevent AI from making Atomic Weapons without a Weapon Choice (and thus harmless and never interesting enough to actually build)
- Also made the AI value Atomic Weapons a bit more even if low Atomics resources. Its that important, it should not be to scared of having low resources here.
- Fixes to the tech period where AI is between atomic launchers and ICBMs.
- Made AI more conscious of possible low Atomics resources while having the tech to build atomic weapons.
- Worked on some production/mothballing rationalizations for AI in very long games

v1.27.00 – 18th July 2025

- Split Theocratic Major Regimes into Theocratic and Elitist Major Regimes. They are very similar but their Factions are different. The Elitist Regimes have the Factions: Criterians (reasonable but definitely not stupid), Regents (self preservation), Optimates (more aggressive and militarist) *
- Fixed getting too much high Cap Leaders on higher difficulty levels *
- Fixed some Stratagems displaying stuff like <NATION> in their text blurb.
- Fixed exploit with moving into enemy hex using the P key.
- Militia Troops will no longer be sent back to SHQ if they have quality level obsolete. Furthermore SHQ will allow obsolete troop types to be sent out to Militia Units if they have the “militia people”.
- Vidcom NewGfx Switch added to Prefs, by default it is on. If switched off only old style graphics are used for Vidcom, this does also mean less diverse graphical illustrations. In a few months a similar switch should become available for Stratagems. I hope this pleases the part of the player base that does not want to use the NewGfx, at least somewhat. -For Matrix Open Beta the above this doesn’t work completely as I cannot remove existing files, so in the Matrix Open Beta

switching off NewGfx actually still shows the Arachnid + Danger newer graphics.
    - Link to NewGfx Vidcom modding: https://docs.google.com/document/d/1sf_DqtVhBMQsYfKG-KhYNWmIq5Ck6N1HB1Mm8KAuIKs/edit?usp=sharing

Some relatively big combat balance changes with this patch. Artillery has been boosted and AFVs have been nerfed, but only in specific circumstances.

- Increased the Artillery KILL chance a bit (did not make many kills, but should make 20% more kills now, a tad bit, but read on below) *
- Added ACCIDENTS rule for AFVs, for in order of vulnerability: Tanks, APC and Walkers. See below for more info. *
- Artillery RETREAT hit can translate to KILL hit with (relatively) low XP targets. See below for more info. *
- Militia Replacement Troops can now be low level Models as well. This was inconsistent before with new Units having the possibility for regular Model usage, but not their replacements troops.
- AI is now more inclined to upgrade troops (especially at lower XP levels if seriously better equipment available)
- Faction Stratagem gifts did not take into account the Profile preferences of the Faction in question for the selection of the Profile Stratagem given, they do now, though some randomness remains.
- Fixed possible issue with Decision not raising worker happiness.
- Fixed an issue with non-Cabinet members actually being able to vote during Politburo elections.
- Fixed issue with not being able to manually transfer Militia from SHQ to Militia Unit in same Hex.
- Mech Artillery/Launchers now have 10 readiness loss for 100 AP move instead of 30. *
- Absorption Critter Feat now always has 10% chance to fail (caused an issue before at level V which made a fail impossible)
- Changed the weighting of possible culture groups on Planet; should result in more diverse cultures on newly generated maps *
- High Tradition >100 was still not allowing a tiny chance of CAS raise, this should now work, though it will be really slow.
- Some mouse over fixes for some skills, techs and stratagems *

ACCIDENTS

- During offensive warfare and when scoring a KILL/RETREAT hit, Tanks, Walkers and APCs have a small chance to get destroyed by last minute (suicidal) enemy counter actions accidents or accidents (or combination of both). This can only happen against highly entrenched adversaries or in landscapes or river crossings that are not well suited for the Troop Type in question. Tanks attacking unentrenched enemies in Plains Landscape Type for example will have 0% chance to suffer an accident, however Tanks attacking in Forest have a 3% chance to suffer an accident (remember: only upon scoring a KILL/RETREAT hit there is a test). APCs and Walkers have only half that chance, note also that Walkers do not have any Landscape Types that give them penalties in the first place (though major rivers still expose them).

HIGHER ARTILLERY KILL CHANCE WHEN FIGHTING LOW XP TROOPS

- A Retreat Hit by Artillery can be transformed into a KILL hit if the XP of the target is below 40.
    - At 10xp or lower the chance is almost 30%
    - At 20xp the chance is about 10%
    - At 30xp the chance is about 5%
    - At 39xp the chance is about 2.5%
    - At 40xp or higher the chance is 0%.
- New Faction's first Faction Leader during the game is now usually much better aligned with their new Faction. They sort of trade their previous ideology for a potential position of power. Ambitious Leaders have more chance to align and to found a new Faction during the game.
- Added some more log entries on Private Credits in the Zone Logs & did some general QA work on tracking this really correctly (for me and for the player)
- Fixed faulty XP in raising formation with SHQ Troops
- Fixed misconfigured conditions for raising Light and Heavy Armor Grenadier Army.*
- Fixed the amount of Energy/Food/Ammo/Fuel/Water/IP that is being kept by Zone in case it will not have enough maximum storage points to do so; in that case it will send items back to SHQ

even though it needs them next round, better than losing them. (Big thx to Dave with this rather rare case).

- Fixed a small reporting glitch with energy in the inventory tab (consumption need reported was not taking energy rebate into account of agri facilities)
- Verified Disband Militia is working; it is working. But you need to play a scenario started with #220 or later.
- Major AI on higher difficulties now does higher Tech Level starts with Models utilizing the best Tech thats available at start of game.
- Major AI in early game is now more keen to design better versions of much used equipment/models when important new tech becomes available
- Major AI is now more sensitive to recognizing another Major is getting too much ahead (but stays sensitive to especially victory pact for non-game winning reasons)
- AI gets better Leaders at higher difficulty levels (upto +1 cap level at extreme difficulty)
- AI fix where it was not perceiving possible longer term encirclements as good as it could
- Limited budget changes for Organisations to minimum 1% per organisation. There is minimal upkeep needed to keep the lights on.
- Fixed feedback when using “Call To” diplomatic Cards to explain the addition of dem,aut or mer to your ROLL. *
- Fixed small glitch in Crime Syndicate algorithms (destroyed security asset without crew) *
- Fixed issue with some other Cultures Milita Units losing Unit Feats.
- Fixed crash with sentient alien units and using the Battlegroup Order.
- Correct mouse over now for Major Diplomatic Pact Stratagems.
- Salary effect on Natural Relation Point has been lowered *
- Rank Feature added. HR Task now also produces Increase/Decrease Rank (title) Stratagems that can give a Leaders a higher salary and more prestige from their job *
- In Leader Management Tab you can now also inspect the Leader Feats
- AI change on tactical level: added an extra move algorithm option on normal AI speed or higher, should result in slightly better tactical moves.
- Fixed glitch with losing of Quality Levels when reforming unit/HQ (Zarohn)
- When depleting the Militia Pool the Population will be reduced (if possible)
- When rebel units form the Population will be reduced (if possible)
- When suboptimal recon the Unit counters now show the same value on map as in the troops breakdown in the bottom.
- Fixed glitch where logistical points need of Asset was reduced by city level multiplier (farmstead III req 50 logistical pts instead of 150)
- Fixed having the Model graphics show up in the Battlegroup Popup Window
- Private Economy will stop upgrading private mines that dont have enough reserves left in the ground
- Private Economy will favor industry/scav assets more often again
- Fixed a tiny glitch with not selecting the city hex when clicking in left side window
- Fixed mouse over for make peace Strategem
- Fixed issue with some Profiles not changing with diplomatic major events *
- Fixed transferring from Zone to SHQ in same Hex if no logistical points available.
- Militia can now be disbanded as well. (because it could be scrapped, like this is more consistent)
- Regular Troops can now no longer be transferred into Militia units (was an exploit)
- HQ reports now show up even when round 70 passed or advice turned off.

Extra notes on the new Rank feature:

- Giving a higher rank title to a Leader immediately gives some relation effects. It also increases the Natural Relation Point for monetary as well for honor-related reasons. It also increases the Prestige from the Job they are doing.
    - Rank 1 = salary * 5, prestige from job +10 pts
    - Rank 2 = salary * 25, prestige from job +20 pts
    - Rank 3 = salary * 125, prestige from job +30 pts
    - Rank 4 = salary * 625, prestige from job +40 pts

- Major Fix with AI regimes not being set to a story mode (friends, blackmail, etc) and subsequent events not triggering. This has been fixed for new games and running games (retro-active fix will take a new round to go into effect)
- further AI changes on tactical level to try to strike the right mix between timid (too often previous subversion) and audacious depending on the number of units on the frontline.
- Fixed the Base Design formula for aircraft , it no longer takes “aircraft ruggedness” into account a bonus as it causes issues with field testing. On top of that “aircraft ruggedness” should never have given a bonus to the base design in the first place, it is already giving a bonus to Hitpoints. (Thanks Felius!) *
- AI changes on the tactical level especially on medium and slow level (extra searches, small nudges & some code fixes). The AI should be a bit more wary now against encirclement and holes in the line, however it might have gotten a bit bore timid in some circumstances too, where it is better to drive forward. So feel free to send me a save game of any such instance where it should have played offensive cat & mouse instead of trying to avoid encirclement. This will be probably be worked upon for the next open beta. Feedback is thus crucial.
- Expanded rather limited implementation of moveRedux effects of artillery on transporter (truck/apc) speed. Used to be only applied if the trucks had an AP cost decrease (fast trucks), now also for all others (normal and slower than normal)
- MTH Stratagems are now handled by Economic Council Director (instead of Foreign Affairs Director) *
- Salary impact on Natural Relation Point is now optimal at Leader Egoism=50 and slacks of going towards 0 or 100. In the first case because the leader is altruistic and doesnt value rewards very high, in the other case because it wants more and more credits as egoism creeps higher. (note that the stratagem gifts do work well on high egoism because the public ceremonial nature (PP expenditure) of these gifts does scratch their itch) *
- Waterfall Turbine Hex Feat description fixed*
- Mod Library usage fixed. Thx Magirot! It now loads mods again without crashing. Apologies here, not sure how this bug snuck in.
- Fixed Danger Event preview with too high modifier on skill roll
- Fixed map centering in some cases (big thanks to JeanLeChauve for this report and many others)
- Fixed mothballing of private mines when necc
- A cap on egoism loss with leaders with low ambition and parliament regime feat active. Iit cannot go lower than ambition now. *
- Agri preview production fixed
- Made fixed AI Admin level (based on round) now more variable also depending on BP production *
- Arachnids less chance to be present on planet where they have no prey to hunt

v1.26.16 – 26th November 2024

Highlights

- 33 new Danger event variations added, including 19 new vidcom graphics to illustrate them
- Social Housing and Worker Apartment Asset Types added, allowing you to convince Population and Worker to stay in a specific Zone
- The slightly weakCommerce Profile at 50+ now gets an extra Stratagem "Improvised IP"
- Detailed mouse overs added to the election reports to show why the election votes went a certain way

Full changelist:

- Added 33 variations for Danger events *
- Including 19 new Vidcom graphics (this is a further experiment towards introducing more vidcom variety and moving towards a complete overhaul of all Vidcom graphics with core 1.4 release (planned with Republica DLC in 2025)) *
- Added new danger event that only triggers on high Zone Culture score *
- Added some secondary skill bonuses for Danger events (these give their absolute skill level as a bonus (note not their skill family level))*
- Many of these Danger variants only trigger under specific conditions and will make the difficulty level higher than the regular events, also they tend to make the casualty levels quite a bit higher.

Luckily they should not occur that often. *

- Security Danger events now gets roll bonus from security score + troops in city *
- Health Danger events now get roll bonus from health score *
- (Low) Culture Danger events now get roll bonus from education score *
- Extra difficulty can be added under specific conditions (fear,unrest) but only likely on higher difficulty levels *
- Some moderate possibility that Danger events now also generate some Unrest *
- Enforcement >40 makes mitigating Danger Events easier. *
- Fixed GR Chaingun Tech, it now no longer affects energy MGs. *
- Fixed GR Phantasmagora Buggy, it now no longer has its AP modifier capped. *
- Fixed aircraft no longer benefiting from GR Chaingun Tech. *
- Fixed delegated Mining Asset not turning up in Mining Overview.
- Fixed resettlement proposal decision to now impact reg-reg relation level.*
- Cloning Facility % increase now from 1% to 0.5%. *
- When you upgrade an Asset it now keeps its previous damage if it has any.
- Private Mines should now mothball when they run out of mineable reserves and startup again when new reserves are available.
- Can only play 1 Posture on a HQ each round now. *
- Arachnids less present on Planets (-33%) *
- You now have access to the trooptype statistics of other Major regimes at recon level 30 or higher.
- Also Regime Recon gets Spies 2 as extra recon if not more >=8 zones within the enemy. If >=6 zones 2.5, If >=4 zones 3, if more >=2 zones 4, if only 1 zone *6*spies. This means it is easier to get Regime Recon if the enemy regime has less Zones.
- Housing Tech added
- Social Housing Asset Type added
- Worker Apartments Asset Type added
- Added a lot of mouse overs in the election reports revealing a lot more information about how the calculations are made during elections.
- Governor influence on elections has been improved + Soldiers voting algorithm now follows more closely the setup for pop+worker voting. Notice that new elections with this version might see some shifts in voting behavior.
- Sped up AI calculations with 10-15%
- Much improved the algorithm for Midcore Logistics that was getting very slow once an empire got large with many roads and logistics sources. Added a LOT of cache-ing to the algorithm that should speed things up the midcore logistics by a factor of about 30 times faster. It might still get a tad slow when you get really large, but nothing like before.
- Fixed hex extra info mouse over for some Unknown Landscape hexes, which shouldn't have been shown.
- Fixed first window of Raise New Formation Order where sometimes Formation Types where missing if Use SHQ Troops option was flagged
- Fixed issue with extra kill percentage not being applied for GR Optics Tech and the GR artillery unit. *
- Switched off Advice from round 70 onwards or if 9 or more Zones in control (we assume no more help needed at this point, and it reduces turn calculation time a lot for large empires that never switched advice off in the Prefs)
- Increased coarseness of logistics a little bit to increase speed
- Especially on lower difficulty levels and playing without the History Class "Low Resources" there will be more opportunities to find low-grade Metal Deposits. Considering base Metals are so common on all Planets they are now easier to find, but the extra deposits now added are not very economical to exploit. Same as for Metal is done for Rare Metals but much less pronounced. *
- Added new Stratagem for the Regime Feat Opportunism (Commerce-50) which is "Improvised IP" which allows you to use the Population of a Zone of choice to produce IP by paying Credits (and 25 PP). Giving a little buff to the commerce profile especially in the early game. *

- AI BP generation bonus reduced on Regular and higher levels, because the AI has become a little bit more clever in which research to prioritize recently. New BP gen bonus: -33% on beginner, +10% on regular, +50% on hard, +120% on extreme *
- Fixed an issue with SHQ management for an AI empire spawning many SHQs on the same island (thanks to Jed!)
- Fixed an issue with the AI not building flak when severely overpowered by the player (thanks to Jason!)
- AI was giving up a bit too early with the the air war, nudged this a bit
- Gave AI some more incentive to still research low techs when already in high tech areas, to avoid it having a hole in its tech tree
- Canyons now give combat penalties *
- Fixed an AI glitch where it could build (in rare circumstances) makeshift ports on your territory

v1.26.15 – 21st June 2024
Balancing, Changes and Improvements

- Lot of work has been done on the AI military mid-late game play, notably concerning using higher tech equipment and atomics like ICBMs and being able to buy lower tech stuff even while higher tech stuff is available.
- Midcore rules do NOT use branching rules anymore, making them even easier to play *
- Combat Odds Prediction with the SAME units in a different selection-order now gives the same odds prediction
- Any non-air Subunit that did not do any meaningful attacks (or structural damage) during a combat round is not charged ammo for that combat round. (was already the case for air)
- Any non-air Subunit that did not do any meaningful attacks against land subunits, but did do so against air subunits, and which is has much lower best air attack than best land attack (4 times lower or more) will be charged less ammo cost. This last rule will mostly apply to MG and similar models with really small AA cap.
- Airbases can now be constructed if you have Propellor Tech OR Rocket Engine Tech. *
- Increased ammo cost for Heavy Rockets and Heavy Missiles *
- Reduced number of bald females *
- Plugged glitch where asian females had really high chance to be bald *

Fixes

- Fixed a crash at start turn (end of ai calcs) due to a typo
- Human player in a multi-player game no longer loses automatically if he starts a turn without cities. Automatic loss is now only executed if the player has no cities AND no units!
- Defending non-air Subunit that did not did not do any meaningful attacks (att score<1) during a combat round is not charged combat fuel costs for that combat round.
- AI sometimes underestimated unaligned/minor threat at crucial points considering it wrongly unimportant (potentially causing early collapse by loss of city), this should happen less often now.
- Leader portrait losing faction colors is fixed
- Leader portrait going bald and getting hair back again (at age 21-22 threshold) issue fixed
- Fixed rare weird glitch with Profiles of some Regimes being able to go below 0
- Fixed Asset Management Tab previews if logistics connection Zone + SHQ is connected with naval logistics and the SHQ is not allowed to use them.
- Fixed glitch where you could set OHQ to be commanded by itself
- Fixed issue with very long games where the AI Regime Leaders + some 3rd party leaders got really really old and at some point it felt like geriatric warfare.

v1.26.14 – 4th June 2024
Balancing, Changes and Improvements

- It is now possible to create “Makeshift” Zones on Hexes without a Zone (“No Zone”). However this is more expensive than regular Zone creation (35PP, 500 Credits, 500 freeFolk/soldiers), but it

can start a new Zone closer to an existing city (needs to be only 3 hexes away instead of 5, or even without condition if it concerns a small island of 16 Hex or smaller). This seemingly minor addition will give you more flexibility in special cases and open up a large number of possible new strategies concerning expansion by airlift. Note this new feature uses the same "new Zone" button when a "No Zone" Hex is selected.

- Unit Supply is now prioritizing Food a lot and Oil quite somewhat. This has been done to prevent cases where Ammo uses up all the logistical points and nothing is left for even more vital stuff. Food is vital for obvious reasons (starvation), but oil is also vital because low oil gives actually quite horrible combat penalties.
- Finetuned Farm-/Dome-steads building and now allowing maximum 2 Farmsteads to be build in a Zone, from there on upgrading those (until they reach Farm Community Level) is going to be the rule. We want to avoid cases where Farmsteads just clutter too much map. (partially *-ed)
- Finetuned Private Debt rules : Population can now go into debt as well to buy full Private Farm/Dome Communities. *
- The Arachnids Minors have multiple levels now. The higher difficulty level you play the more dangerous they'll be able to get, spawning special castes as Defendrix, Dominatrix and Exterminatrix, as well as Queens and Champions. *
- Added some protective code to avoid Majors starting on island that is inside a lake (not ocean zone).

Fixes

- Various big fixes to Slavers, Arachnids and Mutants actually "decimating" population & free folk and getting growth of them, as well as them changing zone culture once population levels reach zero. (partially *-ed)
- Fixed exploit where reconquering a Zone (after losing it) gives you a Fate Pack again. (partially *-ed)
- Fixed buggy behavior with MTH wants more staff Decision.*
- Fixed some serious production penalties for various stuff including lowlands penalty for Wind Traps, Agri Rain PH modifier, Agri Soil Heavy Metal modifier, Solar Panel rain modifier, Agril Rad modifier. This only kicks in with games started with this latest version, otherwise the rule shock might be to violent to many ongoing games. *
- Fixed layout bug in Planet Stats Report caused by some rare planet gens.
- Fixed Energy Rebate rule to be actually applied
- Fixed some Tech mouseovers *
- Fixed rare issue with disappearing Free Folk through some Decisions like "Demagogue"
- Slight nudge to CAS increase indep of tradition level, very slight though…
- Fixed showing of movement arrow with strategic movement when using roads with more than 9999 logistical points on them
- Fixed miss-focussing map in some map centering cases on hexes that are close to the "map seam" where the map loops (Asset clicking, probably also history replay)
- Fixed a crash causing bug because units were transferred between regimes (like with the new option introduced in subversion D for Arachnids to split off from their core regime) (big thx to Carl)
- Fix Fate Stratagem category in Stratagem Encyclopedia crash
- Fixed Geyser turbine mouseover text.*
- Fixed rare issue with Minor Militia popping up between friendly units (after you conquered their "masked" zone center).

v1.26 – 3rd April 2024
Features + Rule changes:

- AI receives GR Tech Fate Strats nerfed. On beginner every 60 rounds and max 1 per game, on regular every 50 rounds and max 2 per game, on hard every 40 rounds and max 3 per game, on extreme every 30 rounds and max 4 per game.
- Made improvements to AI tech research selection, among others making it easier for the AI to find a path to atomic weapons, this however is not guaranteed to happen. But I feel more confident with the new algorithm.

- Planetary Spin a bit (or a lot) lower on Colossus Planets, further reducing Wind Speeds a bit on them *
- AI will get random access to the new Fate GR Techs (Beginner: once every 40 rounds, Regular: every 30 rounds, hard every 20 rounds, extreme every 10 rounds). This should act as a general difficulty boost at higher difficulty levels.
- Removed the Metrics question when first playing game, as no matter if its yes or no, i am not collecting at the moment.
- Made a low level unit moving algorithm change to how the AI perceives its chances of getting encircled. Made it a bit less scared in most cases.
- Made AI bit more consistent in diplomatics once it doesn't want to waltz with you anymore. After it starts canceling treaties it will be harder to make them accept a new one again (cooldown timer running in background) *
- Added some code to prevent MTH ship losses against 0 ship enemy fleet.
- Added "Low Resources" History Class which blocks you starting with initial Water Mines and assured deposits around you. Best played on lower Tech level with minimal or no starting armies.
- Wind Traps can now also produce at water scarcity level 4. *
- Wind Traps can now also be constructed in non-mountain areas, but they get a -50% penalty when used in "lowland" areas. *
- Nudged Guardians downwards (more tradition stat, less often trigger of tech sale, fast higher price after first sale) *
- Reduced max recruitment base level from 5% of Population/Worker to 2.5%.
- Gr Mass Driver Fate Stratagem only appears at higher tech level above 5 now. *
- Lowest Tech MG now also benefits from the Chaingun Tech *
- Increase some GR Tech Fate Stratagem costs and decreased GR Equipment Fate Stratagem costs.*
- Air Models now also have their Air attack values divided for having multiple attacks *
- Fate Packs for level increases nerfed upwards. Now Beginner: Fate Pack on Admin,Culture,Tech level rise. Regular: Admin + Tech level rise, Hard+higher: only on Tech level rise *
- Made some changes to better support super long linguistics lists (mod support)
- Ringmail Fate Stratagem cost increased*
- GR Optics Fate Strat cost increased*
- GR Combat Drugs Fate Strat cost decreased*
- *=needs new game start
- **=adding in running games will be stopped, but the bloated stringlists causing slowness will remain, however I also improved the speed of the linguistics algorithms in case of huge stringlists.
- 25 New Fate Stratagems added, including rare and very rare ones. Leading to: 10 New Fate-Strat-only Techs, 5 New Leader Feats, 4 New GR Models and 6 "red" Fate Stratagems.*
- Peripheral Mining Stratagem has been finetuned. It will cause some more Ease of Mining Degradation when played on Mines with really high ease of mining levels (chance for extra level loss: 90% at level 9, 75% at lvl 8, 50% at lvl7, 25% at lvl 6). Also overall extra resources found is lowered a bit with -33%.
- Assault Gun/Tank Destroyer now show their reduced IP production cost properly in the UI (requires making new model to go into effect)
- No longer required to have a Trade Pact Level with other Major to change Tariffs.* That rule made no sense in retrospect as it is you that controls your side of the border and your custom officials can do as they please no matter your absence of an officially agreed upon trade level.
- History replay now shows orange/red icon on air recon target hexes.
- Added Colossus Planet Class. Which is basically just a way to roll huge (and very slow to play) Planets with very probably quite high gravity.
- If you switch to "Discovery Focus" you now loose 66% of your already accumulated Discovery Points. Was a bit of an exploit before.
- Stratagem pics inside Vidcom messages could be swapped around if you looked at them again after playing some earlier received Stratagems in your current turn. This is no longer the case. Requires a new turn to go in effect.

- Blocked the ability of clicking on enemy leader in Decision messages
- Made AI a bit more cautious with constructing Biofuel Assets and made it better understand the Food income required for it to not cause any problems (especially on higher Biofuel Asset Levels)
- Added mouse edge scrolling enable/disable in first subtab of the Prefs Tab
- 160K Bombhatch ammo cost divided by 20.. Was a data entry glitch on my side :/ *

Bugs & Glitch Fixes:

- Fixed Gladiator Unit Feat bonus to also be applied to hitpoints *
- Fixed issues with AI Model Design choices. Should avoid loops with impossible air designs now.
- Fixed a gitch with Wind Speed calculations (planetary spin did not have the correct effect, it should have now) *
- Fixed glitch with lowlands penalty being applied to agriculture as well.
- Fixed Propose Peace Stratagems (major + minor) effect with critical failure. *
- Fixed Mass Driver is now compatible with AT-Gun Models. * (crashes in earlier betas)
- Fixed Breakthrough Stratagem to not be playable if nothing discoverable left *
- Fixed Guardians Decision to not trigger if not enough discoverable left to exclude finishing last discovery same turn *
- Fixed color of Rdn + Supply in Unit Tab to white if the variable is actually unknown due to lack of recon.
- Fixed crash with Air Recon on certain sea Hexes.
- Fixed Wind Speed and Temperature Delta on Mountains for some Colossus Planets *
- Fixed issue with Private Economy building Surveillance Asset
- Fixed an issue with some mods + PBEM games, where in some cases the mod data kept being added **
- Fixed issue with some Regime Feat Zone benefits not being used for the first capital zone in the game.
- Fixed combat preview odds calculations with the use of certain Stratagems like All Out of Offensive.
- Fixed a combat detail report logging glitch that could hide a modifier from being logged (combat calculations themselves were okay)
- Fixed CTD when clicking on transfer button of a Zone without SHQ assigned.
- Fixed issue with not being able to select Gauss MG for aircraft Models *
- Fixed capping of relations after playing MTH Shipyarding Stratagem.*
- Fixed different planetary stats concerning heavy metals PPB / PH between generation and final Planet. *
- Fixed edge case with impossible Faction Demands where Admin,Tech,Cult Level all >8 and happiness and morale are all super high.
- Fixed price reduction for longer MTH Contracts
- Fixed game blocking glitch with enemy unit appearing out of nowhere in a friendly hex (Autumn)
- *=requires new game start
- Fixed some glitches with the AI assigning Posture Stratagems to its OHQs. Performance should be much better now. (thanks to Thibault)

v1.25.5 – 10th January 2024
Features + Rule changes:

- Added 9 Minor Subcultures (2 for Raiders, 2 for Farmers, 2 for Nomads and 3 for Mutants) for more variety during the early game.
- Upon incessant request you can now change Leader names in the Leader Management Tab *
- Upon your resigning of the game being implemented (the turn after the decision) the whole map will become visible now, without fog of war, if it is a single player game
- Difficulty for Offer Protection / Offer Client increased with the Tradition Culture Key of the target Culture.*
- Ammo Factory Level 1 now needs 1000 workers to produce, instead of 500 *
- Natural relation growth is now also possible for Leaders with Ambition 66 or higher. It's just slow

and very irregular. Increasingly so when approaching the maximum of Ambition 100.
- Gas powered Rifle base Fire Power reduced from 100 to 85*
- Skewed the initial random portrait selection a bit more towards more caucasian *
- Added option to consult the Battle Report after regular combat during your turn *
- 25mm AT and 25mm Artillery Guns now have Foot movement instead of artillery movement. *
- Added Public Production Penalty to the Asset Log.
- Triple Electric Engine can now longer be installed on the smallest vehicles *

Bugs & Glitch Fixes:
- Fixed Group Move crash if way more than 16 units on a Hex (freak cases) (matthew)
- Fixed issue with SAMs not firing from distance (voker)
- Fixed "rolled" result mouse over for name of advisor that was displayed as -1,-1 in many cases
- Fixed strategem mini map regime targeting issue with regime that had no hexes with recon on it and selecting it in the list to the left (Xebec)
- Fixed turn process crash due to Zone without traders (Voker + Other reports)
- Nudge to ship building for some MTHs in some special cases (Thrake)
- Starting Asset construction on Hex will no longer remove the "start new zone" flag from previous asset construction order (Trake)
- Irregular artillery,tank and walker now get a little bit of structural damage points capability as well (Thrake) *
- Expell Pop now is generated by Staff Council (Cranky) *
- Fixed renaming upon creation of custom independent formation (Cranky)
- Leaders originated from 3rd parties (like corporate) now get included in seniority ranking
- Better drawing of thermal clothing for Militia
- Fixed heavy metals in water display glitch (huge negative value) on Lava Planets.
- Fixed "resign reveals whole map", it now also works if you resign after losing or winning the game (thanks Das)
- Fixed Unit log glitch that was confusing energy with food consumption
- Made a fix to private economy being blocked from constructing new farms if enough pop present, but suboptimal prodmod average of existing farms
- Fixed a mouse-over production detail glitch in Management's Assets Tab
- Fixed a crash with attempting to Disband an Asset in a Zone that does not have a City yet. Disband no longer possible in such rare occasions.
- Fixed some farming areal bonus calculations*
- Fixed rather serious double food production of agricultural assets*
- Fixed an issue where a Minor Regime under your protection got attacked by a Maor Regime AI and where Pacts where remaining in place (not that between human player pact levels due to indirect cause of war should stay intact)
- Fixed a rare AI glitch where it could possibly build a second mine Asset in a Hex
- Added the missing graphic for Tech #10 : Furnaces
- Adapted the Zone Border painting algorithm to take into account enemy neighbor Hexes in the same way we take Sea Hexes into account
- AI no longer receives airbase on Zone City if low pop+workers.
- AI no longer abandons "safe" strategic reserve allocation for hex that also has air units.
- Fixed a glitch with sea water heavy metals calculations on ocean worlds that are frozen over

v1.25.00 – 20th November 2023
Fixes
- Fixed glitch and some inconsistencies with Areal calculations in some circumstances
- Fixed a small mouse over glitch with the none-options in the Blue Print Tab
- Fixed an inconsistency between new debt rules and Corporate Story Module
- Fixed glitch where AI was mothballing Airfields, but not re-opening them
- Fixed UI glitch not showing 0 reserves >1 ease of mining deposits
- Fixed a capping of crossroad maximums (that was too low at 11, now at 21) in the logistical calcs.

Fixing disappearing Logistical Points (Thrake)

- Fixed issue with Farming Preview being set to 0 (Thrake)
- Fixes issue with Delegation not being removed after conquest
- Fixed rare crash with combat calcs (solops)
- For some reason Minors without City in their Zone like Arachnids, Mutants, Slavers, Nomads have not been placed on the map since quite a long time now. Don't know where exactly in time this error snook in, but this rather severe oversight has been fixed now.
- Fixed hex highlighting for Strategic Transfer and glitches with the strategic transfer weight of the SHQ
- Playing a first planet and then exiting (without quiting app) and then starting a new Planet could cause some wrong cached portrait graphics. Closed a loophole for some rare cases there, should not happen again.
- Small fix to governor Private Credits bonus. It was mistakenly still giving relation bonus if administration roll > 100 failed. Fixed.
- Fix in Planet Statistics Overview (help tab) if Planet name is too long
- Fixed wrong highlighting
- Fixed a rare crash with MTH Contracts if too many Ports where available in a Zone
- Made many improvements to the details of Battle Reports. They now properly use the FOW and hide what should be hidden.
- Fixed a number of crashes with exiting Battle Reports during the AI playing (was not happening in-turn history mode I was using for testing)
- Fixed description of Assassin Android Unit Feat *
- Fixed a glitch with relation not showing on portrait for some leaders
- Fixed crash with AI processing / combat with firing squads
- Fixed an error with New Portraits upon Character Generation (causing faces without eyes,nose,mouth) *
- Fixed Corporate Tech Stratagem.. It can now only get you an already discovered Tech *
- Fixed a crash when clicking on Zone Logistics Tab (related to air bridges)
- In Raise Formation the high item costs (like 25000 ammo) layout glitch is now fixed (counting in 1000s by using 'k' at some point)
- Fixed Pressure Loss / High Hazard Level calculations during combat. Wrong variable was used, causing to many casualties in some instances and to little in others. This bug fix makes High Hazard Level actually more lethal for very lightly armored (or envirosuit) infantry. And it was already a bit on the tough side. So.. potentially lethal puncture save roll chances have been increased (40% for green, 60% save chance for regular/militia, 80% for seasoned, 95% for veteran).. This also makes experience (and militia vs green) come at more of a premium on high hazard worlds)
- Also Entrenchment now helps protect from pressure loss. (100 entrenchment doubles the armor roll, 200 triples it, etc..)
- Fixed crash with "attacking" Sea hex with Air Recon. (newly caused with 1.21q2 - apologies - was due to the defensive battle reports coding in progress)
- Some fixes to removing depleted mines (they weren't getting removed if finally really depleted)
- Big fix to AI mine extending (wasn't really doing it)
- Fixed the weird ammo usage of gas powered weapon advantage with ammo-saver % on top of the already much lower base ammo consumption. Gas powered is now about 4-5 times less ammo consuming than its counterparts of similar attack values. *
- Fixed the QMG simplest MG system ammo usage, was 10 times too low. *
- Fixed mouse-over and subtab weight info in Unit Bottom UI
- Fixed Organic Furnace disappearing due to "depletion" in some cases
- Fixed remembering 75% DPI Mode on game restart
- Fixed subpar initial items with auto-replacement troops being sent (which occured if one of multiple items needed was not available at SHQ)
- Fixed some Tech Type Discovery/Research BP Costs that we inconsistent *
- Fixed faulty grayed out "New SHQ" button in some cases

- Fixed a glitch with sometimes not using the Skill of the Economic Council Director with Peripheral Mining Stratagem
- Fixed issue with Models and Ablat, Hide Points and Resonance Scanner*
- Fixed general issue (that became more visible with recent Tech additions) of faulty Model Type Design log when multiple techs influence the same Model Stat.
- Small Fix to Private Economy reopening closed/mothballed Assets when permitted again even if still food shortage (but enough pop to re-open said Asset and man future new agri asset)
- Small Fix to Farmsteads allowing them to finish upgrading in more cases.
- Fixed rare crash after loosing unit in combat and going to MNG screen
- Fix: Payload Optimization Tech now also impacts aircraft rockets (& only impact air-to-ground firepower) *
- Small fix to a faulty “-1,-1” message in Town Upgrade Decision if no gov in Zone.
- Fixed AI processing crash (dovakhiin)
- Fixed too high Militia and Minor Trooptype stats *
- Fixed glitch with paying too much for infrastructure (much more than preview with GeoTechnics)
- Fixed Admin Skill effect on Private Credits (still needs verification)
- Fixed CTD with HQ Leader defection that was assigned to a Unit that did not exist, related to a nocked out human regime in PBEM game (Thrake)
- Fixed AI CTD (MegaSaurian)
- Small fix to the 1.21i introduction of higher ammo cost for defensive IF softatt<softdef or hardatt<harddef + this rule now excludes infantry.
- Fixed crash with assigning SHQ to Zone without City
- Fixed PH modified for alkaline water/rain (high PH >8.5)
- Fixed air missiles & air-to-air ammo part & heaviest bombhatch ammo usage (forgot some things with 121i) *
- Fixed AI crash (alex)
- Fixed crash with Zones (Matthew)
- Model graphicsAlt show properly now as well (Pymous)
- Fixed Ice Mining glitches when on Snow/Ice hexes without deposits.
- Fixed glitch with combat map popup.
- Fixed issue (again! Sorry there) with Mothballing resetting with new turn.
- Fixed issue with ammunition/fuel modifier in certain cases, also fixed the actual rules to be in accordance with the manual, with the exception of 0 ammunition leading to lowest 0.2 for defender and 0.1 for attacker (used to be 0.33 and 0.2).
- Fixed glitch with Organic Furnace disappearing when mothballed.
- Fixed a couple of glitches in the river/isthmus connecting system between lakes/seas. Should get slightly better results now.*
- Fixed a glitch causing dissatisfied leaders (non-MTH) to happen a bit too often
- Fixed a bug in a PBEM game where a crash occurred during processing of a defunct Major Regime (Harald)
- Fixed UI Map Glitch if moving units and inspecting Assets at the same time
- Fixed issue with Air Bridge logistics if bridge was only one Hex away. (not 100% sure this does not have any side-effects.. Please keep close eye on air bridges this beta version)
- Fixed glitch where you got empty air units on some vacuum-like (or other extreme) Planets because no viable Air Model could be found.
- Fixed issue with depleted Asset & Vidcom screen
- Fixed oversight with AltGraphics with graphics loaded on the fly within reports; all graphics should be replaceable now (Pymous)
- Fixed a glitch with the AI Minor Diplomatic Effort frequency. It was focussing too much on using these Stratagems.
- Fixed a glitch in the AI algorithm that prevented it from actually executing planned transfers of units from one front to another. Quite a big fix I think.
- Fixed a glitch in the AI selling algorithm where it could reduce Trader stocks due to calculation mistake

- Fixed some rare missing road connections for new Assets
- Fixed the lack of movement penalty for heavy guns with weight between 150-200.
- Fixed glitch with abort Zone Merge Decision that keeps you stuck
- Fixed an inconsistency in the food consumption algorithm. New recruits & colonists now return Food already received in Zone (as Pop/Worker) before reporting to barracks/units (where they'll receive their rations for current turn).
- *=Requires new game start to show up
- Fixed call to succes Stratagem text to be in line with its actual effect
- Fixed very rare issue (tech/culture/admin Level 9) with Faction not having a viable Demand at all and instead of asking the impossible will now ask for more Asset levels.
- Fixed crash at round 200 (Dalibor)
- Fixed crash related to AI airforce usage (bellrock)
- Fix: Savannah Snow , Cloud Forest Snow and Jungle Snow can now also be used for surface Snow Mining
- Fixed Protectorate/Client status in rare cases where you had a Minor Client/Protectorate that would declare war on you through events => the protectorate/client status is now removed.
- AI: Fixed some occasions of very badly considered land follow up attacks after artillery bombardment
- AI: Fixed the overvaluing of some artillery attack
- Fixed faulty "void of life" message in planet gen*
- Fixed a glitch with deleting decisions upon actually aborting Zone Merge
- Minor fixes to FOW rules. Each Hex had 4 undocumented hide points basically, brought back to 2 and shown in a recon box mouse over now.
- Fixed PlanetGen Minor+Major count (tonechild was right)
- Fixed Robotic Replacement Troops
- Made fixes to AIR Model Designing that sometimes blocked it from advancing (due to unviable models)
- Fixed AI concerning replacements by glitch fix and lower XP threshold necessary
- Fixed an experience gaining bug (wtf1337)
- Fixed a windows scaling issue (not 100%) with the intro cinematics *=Requires new game start to show up
- Fixed some glitches in Asset Management Tab (negative numbers in red)
- Fixed glitch in specific Asset production mouse overs in the right pane of Asset Management Tab (was showing preview instead of regular)
- Fixed AI glitch where it would launch a "phantom" air attack without actually having the Units that could execute it (air related at really short distance from airfield) *=Requires new game start to show up
- AI: Fixed analysis of units:Hex ratio with Oceania DLC active; This should lead to substantial extra production of Units; Quite a serious fix
- Fixed a glitch in the Airbase Points effects
- Fixed glitch. Major AI on higher difficulty level now has its combat Bonus also against Minor Regimes / Unaligned. And also included some extra Combat Bonus against Minors on top of that fix to offset the higher Minor Unit Count that was partially undoing the desired difficulty level. This fix and boost should impact quite a lot the early expansion phase on higher difficulty levels.
- Fixed a turn processing crash (Mark)
- Fixed another turn processing crash (Mikko)
- Fixed a bug where Pro-Piracy could explode in weirdly high values for no reason! (especially when it shouldn't do so at all)
- Fixed a bug with AI processing crash *=Requires new game start to show up
- Fixed a crash during turn processing related to one of your Zones (temporarily not having a City)
- Fixed a graphical glitch when keying (9) through your Units while having the Asset Tab open
- Fixed a crash during AI processing (related to rebels)
- Fixed an edge case rule where Port forming new Zone got delegated to old Zone
- Fixed a relatively rare but annoying occurrence of a Zone ID getting swapped during making a

Zone Decision due to interaction with other Zones while the Decision Tab was open.
- Fixed Demand issue again (didn't do it properly during 120o)
- Fixed bug with Renegade Elements Decision
- Fixed crash on trying Replacement Troops order on a Unit without a HQ
- Fixed a rare issue with faulty Demand being made when you had lots of very happy Factions (>90)
- Fixed issue with Road Construction now being possible from a road that already has >=10.000 Logistical Points (Solops) & fixed issue with road construction being possible from a non-road Hex.
- Fixed the “Sell Share” Stratagem, it was not functioning at all. Should be good now! Now restart required, just this new version.
- Fixed Radiation Leak Stratagem *
- Fixed only 1 of the Leader Recruitment Decisions showing up with a MTH Alliance
- Glitch fixed with Private Ports not producing Private Credits *
- Fixed Corporation Tax Paid not resetting to 0 every round and screwing up the Treasury Report

Balancing, Changes and Improvements

- Added Blueprint Tab in the Management Screen. You can use this Tab to create Blueprints for different Model Type Designs and then when the Decision come up just refer to the Blueprint instead of going through all the steps. This should especially make designing Aircraft (notably being Unviable in many combinations of choices) much easier to do.*
- Added New Graphics for Leader Portraits. You can enable them in Prefs>NewGfx once you start a new game with this latest version. You can switch between old & new graphics during a running game. *
- Here is the documentation for modders for the New Gfx Portraits: https://docs.google.com/document/d/1i7raH5KcK9EZgCRL1GpyHVkcZvCzMtZ8IE4G4VjGCLE/edit
- Big one: Midcore Logistics usage now not only removes the Logistical Points from the exact “used” trajectory, BUT also reduces Logistical Points on other Hexes that use the same Logistical sources as those on the trajectory (this effect is only 50% to keep some incentive to construct multiple roads, but not make this something that can be gamed (and push the player into creating a road maze)). *
- Added more mouse-over to Hitpoints info in Trooptype Popup (notably to know its hitpoints if attacked from above)
- Walkers now benefit from Infantry Combat/AP bonuses from Postures. *=requires new game start
- Geo Technics [Ec] Tech added. It makes it cheaper to construct road/rail over difficult landscapes/river crossings.*
- Mines [Mi] Tech added. Gives extra +75 attack points first time unit counter attacks against and by non-ranged, non-backbench, land theater troops.*
- Photonic Mines [Mi] Tech added. Improves upon Mines and gives max(+150, +20% of hitpoints of defender) in attack points instead of +75 (for regular Mines) first time unit counter attacks.*
- Mines extra attack points are modified for ammo shortages and for effective unit-based entrenchment. At 100 entrenchment points on top of auto-entrenchment the effect is full (in plain english: there needs to be time to prepare booby traps). Mines are also used by Militia. Note that Mines Tech Modifier are logged as UnitFeat bonus for the moment.*
- Echo Tracer Spy Kit [Ec] Tech added. It gives spies more chance to uncover enemy Units.*
- Chameleon Camo [Mi] Tech added … Infantry and vehicles obtain Hide Points. However this is most effective at the smallest trooptype size, like Infantry.*
- Resonance Scanner [Mi] Tech added. (short for Thermal Resonance Scanner) Basically same effect as Advanced Sensors) but doubles it once more (or vice versa) … (also used by aircraft)*
- Ablat Coating [Mi] Tech added. Can be worn from Padded Envirosuit up and any vehicle armour. HP +40% versus laser, HP +20% versus beam, but modified by Min(1, ArmorMM / 50) (or in other words very light armor has trouble to use the Ablat Coating properly)*
- Ammo Compaction Tech + Light Weight Ammo Tech allow Models to carry more Ammo, +50%

each (non cumulative). In case of Air Models the Ammo Compaction Tech does not work, but Light Weight Ammo Tech will half the weight imposed by rockets, missiles, bombhatch and precision bombs.*

- Hyper Explosive Ammo Tech and Actinide Tipped Ammo Tech gives better attacks against Soft and Hard, for Ammo-based non-Air weapons. +50% for each.*
- Ultra Capacitor Tech doubles Power Bank storage + Negates battery self-discharge loss (see below)
- Peripheral Mining Stratagem now has more chance for finding hitherto unidentified rich spots within current reserves if used earlier (instead of later). This to offset mid-maxing waiting until last moment playing this Stratagem.
- Midcore Logistics now has Pull Points and Traffic Lights turned off automatically *
- Changes focusing on reducing some of the most blatant overpowered benefits related to Artifacts (the Cloning Facility for example), Hex Perks, Faction Stratagems (just too many) and Fate Stratagems (too many Fate Packs awarded). Also adds ability to increase Logistical Points a lot.
- Artifacts Nudges: *
- Less artifact sites in general on higher difficulty settings (from regular onwards. Or regular diff -40% sites)
- Portion of (very) rare artifact sites (of all artifact sites) is lower on higher difficulty settings (from regular onwards. On regular -50% occurrence Very Rare, -30% Rare, -20% Uncommon)
- Energy Lance from Uncommon to Common
- Grav Shield from Common to Rare
- Wasps from Rare to Common
- AntiGrav lifter from Uncommon to Common
- Assasin Droid from Very Rare to Uncommon
- Grav Collector from Uncommon to Rare
- Cloning Facility from Uncommon to Very Rare
- Aut.Clinic from Common to Uncommon
- Subterran Sensor from Common to Uncommon
- Subvocalizer Tower from Very Rare to Rare
- Hex Perks: *
- Geyser Turbine energy halved (now 50)
- Waterfall Turbine energy halved (now 100)
- Added about 10 extra less useful Hex Perks to be “priority used” for Unaligned Zone Centers that did not have any pre-apocalypse populace. The qty (-33%) and usefulness (based on pre-apocalypse Populace check) of Hex Perks is somewhat reduced.
- Slightly less Zone events triggering (-40%) that lead to Hex Perks as for example the Battle Dojo
- Faction Stratagems: *
- Reduced the number of Faction Stratagems you’ll receive. Basically halved it. (but even more so on higher difficulty levels: regular -60%, hard -70%, extreme -80%)
- Fate Stratagems:
- To receive Fate Pack from Zone Conquest its now only sure if new Zone has 20% of existing Populace in your empire or more, if conquered Zone has less than that 20% there is a linear chance you’ll still get the Fate Pack. (previous hard 10K populace limit has been dropped).
- On Regular Difficulty and higher Admin and Culture Level increases no longer give a free Fate Pack. Tech Level is the only one now that does this.
- Admin/Culture/Tech Level remember previous high levels now, so no longer possible to potentially game this by slightly decreasing a level and then raising it again. (this protection was already in place for losing and reconquering Zone) (also the reduction in Tech/Admin/Culture levels is something that might happen with the future DLC Republica, so already prepared for this happening more often)
- Fate Stratagem Fate Point Costs:*
    - (old FP cost > new FP cost)
    - Exotic Combat Drugs 4 > 1
    - Supreme Leader Day > 1

    - Eager Industrialist 2>1
    - Ancient Depot 5>3
    - Gladiators 2>1
    - Travelling Teachers 2>1
    - Feasts 2>1
    - Great Speech 3>2
    - Aux Chemical 2>1
    - Spotters 2>1
    - Mountaineers 4>1
    - Sandline 4>1
    - Ear Lock 3>2
    - Personal Wealth 3>2
    - High Tech Vault 5>3
    - Scientific Outpost 3>2
    - Security Outpost 2>1
    - Viewpoint 2>1
    - Eco.Station 2>1
- Added preview of Design Log to Blueprints Window
- Added Air pressure in mbar to Geology Planet-Gen window
- Road Building now works the same with Oceania DLC and without
- Road Construction now needs to start on a road hex that can trace over friendly Road Hexes to a Road Hex with Logistical Points (initially at start of turn) connection to the SHQ of the Zone (where you selected the Hex). This makes it work both with Islands and regular play and does not allow magic transfer of IP/Metal to construct anymore (like before 1.20o)
- Started work on AI being better at using Airforces. See the points below:
- AI: Improved desired Air Units calculations and made AI less cautious in producing Air Units
- AI: Decreased the negative impact on Air Unit production by low unit:frontage ratio & high recruit count waiting for placement
- AI: Added a conditional (if not enough are present) boost for Aircraft Production (and Tank somewhat as well)
- AI: Aircraft favor creation of New Units over OOB Upgrades (larger sized Units)
- AI: Improved AI Aircraft Quality Settings evaluations
- AI should research more Air Techs now (it only really did so if it had a preference for Artillery Tech Path before… Offensive mindedness now also is a modifier) *
- AI is making better Air Models and a lot of cases where it got stuck with a non-viable design have been solved *=Requires new game start to show up
- MTH Change of Heart & Stock Emissions no longer require MTH to have 2+ Sea Zones.
- Changed the MTH contract size offers from 500,2500,9000,25000 to 500,1000,2500,9000 .. Nobody (almost nobody i mean) was using the 25K one anyway. This is more practical. Also fixed a bug in the MTH contract size offers that was giving you big contract sizes without reason
- Increased contract size offer, MTH is keeping less ships in reserve now (from 0.2 * av ships => 0.6 * av ships)
- Nerfed MTH Population Buy Decision a bit *
- Halved the PP cost for Stratagem “Forced Relocation” and random boost to result possible. Divided by 3 the result of the Stratagem “Attract Free Folk” and doubled the PP cost. (note that Attract Free Folk takes a % and Forced Reloc much less so, also notice that Attract Free Folk requires good Zone Pop Happiness to work) *
- Bulk Shipping Reduction. Transfer of Bulk Items overseas (by MTH) now only weighs on average 0.25 instead of 1.0 logistical points). This is implemented for Unit Supply, Zone Supply, Zone Returns, Item Transfer Order. The rationale behind this is that the MTH Cargo ships make it much more efficient to bulk transport goods of the same kind than other modes of transport. Bulk Items include all Items except Colonists and Recruits (they require cabins). Gameplay-wise this helps the player to more easily create an economy involving multiple islands, as well as balance out the increased ammo usage in relation to the Oceania DLC rules.
- Added “Extend Mine” Stratagem to the Economic Council. This Stratagem will allow you to choose

a Mine to extend (must have mining ease level 2+). Effect is that more reserves will become available by digging into lesser deposits as well. The cost however is a drop in ease of mining. (Prospecting Skill of economic Director + Governor are used to determine effect, as well as the Prospecting Optimization Tech)*

- ”Breakthrough Now!” Stratagem can now NOT be played if no Techs available for it to discover.
- Not making Thopters weaker, they stay good, but there will be less Planets where they are viable, and they’ll be a little bit more expensive to produce. See below*
- Thopters now need a better airPressure/gravity ratio. Light Thopters get -30% on effective air pressure in calculations because they are so dependent on the buoyancy effect of their flapping wing mechanics. Medium Thopters -40%. Heavy Thopters -50%. As well as more impact of low modified airPressure/gravity (<1) on Thopter Range. Giving them less of an edge against Airplanes/Helicopters on certain Planet Types and on not fully developed tech levels. *
- Light Thopters now require 1 Hi-Tech Item to produce. Medium Thopters 2 Hi-Tech Items. Heavies 3 Hi-Tech Items. (thanks for idea, discord!) *
- Light Aircraft get +30 hitpoints. Medium Aircraft get +60 hitpoints. Heavy Aircraft get +120 hitpoints. X-Heavy Aircraft get +240 hitpoints.*
- Improved chance for AI to research Soil Demetallization Tech (could get stuck at low Stage dev) *=requires new game start
- Improved the AI Unit Shuffling (based on Greg save)
- Improved AI troop building priority for games where it starts with regular troops (1 or 2 army per Zone).
- Added Leader Relation mouse over log for losing relation due to Corporate event
- Motorbikes have their own SFX now * (need to create a new model to hear)
- Made AI bit more likely to intercept enemy air attack with own air forces
- Slight nudge to AI to make it more likely to research side skirts
- If first time player has access to newGfx, they are no enabled by default instead of disabled (preparing for official release here; we want maximum feedback on these guys before we proceed further)
- You can now discover Super Light Aircraft also if you have discovered Rocket Engines (but not Propellor Engines) *
- Power Plants now properly use Fuel Efficiency Tech to produce more Energy Item Qty *
- Reduced AI likelihood to construct Organic and Scavenging Furnaces a bit
- Reduced likelihood (especially on higher difficulty level) to sort of correctly guess/intuit other player’s bid with an MTH Auction quite a bit
- Flak Model Type now has AT-Gun correctly as pre-req instead of Artillery *
- Removed the cap on Admin Level
- Zone will no longer build multiple Farmsteads. It will save up until it can upgrade Farmstead level 1, then Farmstead level 2 etc… Spamming could get out of hand in some rare cases.
- Firing Squad now only executes the leadership of a subformation instead of all its soldiers (and equipment). This leads to xp/2 and after that: xp -10. This makes Firing Squad now much more useful. (remember in previous subversion it already improves readiness as well as morale)
- Did some finetuning on the AI and its priorities for designing new Model Types (was lagging behind too much due to over prioritization of strong models).. It should prioritize more mundane but well-used stuff now.
- Did some finetuning on the AI and its taking more care of not pulling OHQs out of the line where they are probably crucially needed (issue with undefended town)
- Correction of 1.21t log… “-Decreased the number of Hazard Level lethal pressure loss events. 60 armor points added to armor mm value by default in the roll against 1d(Hazard Level *10). “ Was actually 80 armor points added instead of 40.. Tuned this down to 60 now though... meaning that at Hazard Level 10 about half the envirosuits-only guys would suffer pressure loss on any hit. At Hazard Level 5 this should be down to like 10% or so.
- Added a Battle Report button in the History Window which brings you to the Battle Report Console if clicked. It provides more info on the battle including: hits/misses per trooptype vs trooptype, average modifiers, readiness, morale and xp changes. This is still a work in progress as I did not test all types of battles, please do report any issues or bugs with this feature. Also I already noted

artillery attacks cause some problems and some unit names should not be revealed in that case too *

- Gaia Class and in lesser degree: Unclassified, Fontus, Proteus, have some 33% extra chance to become (more) tectonically fragmented (to different degrees) *
- Taking Hazard Level calculations into account for Combat Odds calculator now & much improved the actual odds calculation. Though remember, it stays an educated guess.
- Mines (as used in combat) are now logged in combat reports separately (instead of rather bizarrely included in Unit Feat Modifier)
- Firing Squad Unit Feat, if choice available, now executes the weakest subformation (instead of random) that is retreating. To inspire the actually strongest (instead of random) subformations still fighting, now not only with morale boost, but also with a readiness boost! This should make this Unit Feat more valuable, instead of more of a handicap.
- If very low Air Pressure then RHL Levels is very bad as well (not only toxic gasses kill, but so does vacuum) *
- If very low Air Pressure or Vacuum the Hazard Level cannot be moderate, Vacuum is quite lethal. *
- New Graphics Portraits now remember last uniform for Leader that was KIA to be more consistent in showing their last job
- The “Breakthrough Now” Stratagem now only helps discover Techs that are actually discoverable at the moment the Stratagem is played *
- Decreased the number of Hazard Level lethal pressure loss events. 40 armor points added to armor mm value by default in the roll against 1d(Hazard Level *10).
- Tracked Movement in Forest from 15 AP to 20 AP *
- defensive Tank Combat Penalty in Low Mountains fixed (was 0.25 should have been 0.75)
- Improved the Combat Odds calculator to be very often much closer to the truth. Remember this stays a color coded ratio that just gives you a clue if it is smart or not to attack. You could win a low odds battle or not win a high odds battle.
- Increased initial Oil Deposits with +60% & and 1 in 3 being double sized.
- For the mid/late game I added 2 new Techs: “Logistical Optimization” (linear) and “Automated Logistics” (binary), together these allow you to up to quadruple the Logistical Points generated by your Assets.*
- SAM Launcher FirePower Vs Air has been doubled. But changed it to a single combat round fire (instead of up to 10 combat rounds). This should also divide its ammo stocks by a factor of 10. *
- Ammo Compaction Tech [#129] now has different effect from Light Weight Ammo Tech [#130]. Ammo Compaction Tech reduces the amount of Ammo necc for the Unit by -33% (ammo Saver). *
- Ammo (or other) combat stocks of all Models is now +20% more so that something actually remains after full 10 combat rounds of offensive combat. (kicks in with new model designs in running games)
- Renamed the “Move Mod” in Trooptype Popup to “Move AP Cost Modifier” to make more sense with the actual value being displayed. Thanks Zgrssd.
- Reduced Heavy SAM 10 round ammo from 8000 to 4000 *
- Increased base Trooptype “Transfer” Weight Stat (for Logistical & Transfer purposes) based on Size *
- Increased the MoveRedux effect if Model is too heavy for its engine. Before -100% move redux resulted in Immobile, now this happens at -200%. Note that negative -100% means AP costs are doubled and -200% it is tripled.
- Weight Stat has been separated in one stat for mobilization purposes (the old Weight for being carried by truck/apc; this is unchanged) and the new Weight for transfer purposes. The “Transfer” Weight includes the Weight of its maximum Items (but Ammo only counts for 25% as it is partly considered an integral part of the Model). The following orders & processings now all use this “Transfer” Weight: Strategic Transfer, Auto-Replacement, Auto-Return, (Mass) Replace, Raise Formation, Raise Troops. Note that irrespective of any supplies missing the “Transfer” Weight is always applied. (Militia gets updated “Transfer” Weight too, And this is what now is normally shown in the main interface as Weight). The whole point of this operation is to have a clear

consistent weight for all transfer purposes & keeping the logistical weight of ammo when doing battle (and new ammo has be supplied a lot, especially when on the offensive)

- Mech & Non-mech Quad MG weapon has reduced effect on hard targets *
- Non-mechanized Quad MG has reduced soft attack value & a small move redux *
- Change: Payload Optimization Tech with Air-to-Air Missiles now only improves air-to-air Firepower *
- Air Recon Missions give less XP for Commander now (/6)
- Artillery Attacks give less XP for Commander now (/2)
- Bigger Air Models IP Cost now also impacted by Hazard Level *
- Less free water. Free Water income from rain halved (equal to actual mm/y modified for ((pop/5)+worker in hex)/10000. Every Hex counts for free rain. (river/sea/lake free water is based on best hex, and diminishing effects for less interesting Hexes; every Hex because the “free” collection effort of sea/lake/river is focussed on specific areas (the best ones); yes.. This is something i’d still like to change in the future as I feel it should be handled more like the rain on a hex-to-hex basis.
- On regular difficulty level & higher more chance for Water PH variations (that will impact water availability)
- Troops, not Power Banks or Zone/SHQ inventory, lose 10% of their ideal energy storage at start of turn (before production) because of battery self-discharge (this can be countered with the UltraCapacitor Tech, and GR Models don’t discharge)*
- Low air pressure (<1000 mbar) increases projectile velocity for non-ranged weapons, but including AA ranged weapons (more damage), reverse effect exists too, but is less pronounced. Rule also affects aircraft but only for air-air to combat. This makes AA stronger on low air pressure worlds.*
- Low gravity increases range for ranged (artillery + AA) weapons (reverse can be the case too, but should be rare to have worlds with >1050mbar)*
- Initial Militia forces + Minor Trooptypes are also affected by the new low air pressure rule.*
- Micro Nuke Firepower tuned down from 1000 to 650*
- Tactical Nuke Grenade Launcher tuned down from 15K to 12.5K*
- City downgrades are functioning now, but were doing it too quickly; rules now adhere to what manual states.*
- Updated Solar Panel Asset description to include rainfall *
- AT-Gun model creation is back to half attack values (was wrongly scrapped in 1.21i - thanks volker!)
- Updated mouse overs on Tech MNG Tab to say 4 instead of 3
- Ammo Factory Production doubled (yes it is really much more efficient now than artisanal production) *
- Bombhatch + Precision bombs ammo cost halved (precision bombs still twice the ammo cost of bombhatch)*
- Laser Guns *3 energy use, Beam Guns *2 energy use, Plasma Guns *1 energy use (energy Rifle/MG stay at same cost, they remain quite energy efficient)*
- Serpentization Plant requires 3x the amount of water and produces 33% less energy (further reduced in heavy metals lower than 100% earth equiv)*
- Volcanic Energy produces half the amount of energy (which is still quite impressive)*
- Free Water is now only collected in Hexes where you have Assets. If more than 2000 workers/pop working in Hex free water is collected here (less than 2000 is less collection). Remember that the best Hex free water collection has most impact and things taper off with additional collection Hexes.
- Sam Launcher model now requires Missile Launcher model prereq instead of Rocket Launcher. *
- Governor Admin Skill increases Hidden Economy Credits (if roll>70) + Increased Private Credits production of Assets (if roll>100)
- The bottom Asset Tab now correctly uses the “delegated Assets” sorting sub-tab.
- Perma snow is now better, not perfect yet, but better modeled. Fact there is hardly any rain currently, present time, in some areas doesn’t mean there wasn’t any rain/snow millions of years

ago. Except for really young Planets and really dry Planets, on cold planets there tends to be snow/glacier everywhere now in permafrost conditions. *
- Improved Farm placement algorithms a lot as well as preview production by farms a bit.
- Low Air Pressure ensures certain RHL Levels. Below 100mbar always RHL level 4. At very low levels it doesn't matter anymore if there are toxic gasses, its just vacuum that will kill you.
- Public Assets with Levels higher than allowed in Zone have a 10% chance per level too high to lose a Level.
- "Attach" or "Detach" Advisor now only possible once per round (in line now with regular kind of switches that have a 1 round delay) *
- Small nudge to Model Design Director Skill effects. In 121g you got extra model stat roll if Director Skill Roll was above 100. If skill roll now is below 50 the Model Director causes sort of a fumble and will re-roll said model stat, picking the lowest of old and new skill roll. (if roll below 25 critical fumble there will be 2 re-rolls, picking the lowest result once more of all 3)
- Hex Feats in Asset MNG Tab now show up correctly irrespective of asset view mode on the main map screen (alocritani)
- Made some changes to sfx/music playing, the initial loud burst some people have been experiencing should be fixed with this, let me know please if it is.
- Split MTH Fate Stratagem is now a bit more rare and it will have to succeed a 1d50 roll against current Elder support in order to succeed. This allows some way to defend against a human player using this powerful Stratagem.
- Using the Blue Prints no longer takes into account skill level of the Model Design Director
- Diminished the AI Minor Diplomatic Efforts (like Client/Annex) on higher difficulty levels
- Major AI now also gets some skill effect when designing new Models, based on difficulty level though
- Major AI is now selling Items like Metal if the price is really high, even if it needs them itself, but in small quantities.
- Private Item Consumption for Asset Building now uses less Items if the price is really high (was leading to Metal shortages in some cases
- Private Economy more likely to build specific Private Metal Mining / Water Mining / Oil Mining / Scav Asset now if prices are really high
- AI takes solar energy mod into account when considering constructing them now & privileges solar energy efficiency tech
- AI takes oil availability into account when considering Power Plant construction
- AI increased sensitivity of units fuel/energy/atomics consumption by units for making economic Asset construction decisions
- AI added some extra protection concerning air-tank% and fuel available as well as prioritizing more fuel production if severe shortages
- AI fixed ammo production prio in some cases where other production was way too much prioritized as to forget the immediate consequences of running out ammo
- AI on tactical level tries to move/attack less if lacking fuel
- AI on tactical level tries to value entrenchment a bit more (especially if on the defensive)
- AI fronts size diminished a bit (to have less are per tactical area calculation, but also a bit less cohesion)
- Worked on reducing the AI tendency to retreat when not necessary over over-reaction
- AI now a little bit more afraid of non-aligned forces
- Removed Rare Metals upkeep for Solar Energy *
- Improved Solar Energy Output a tiny bit (+10/15% compared to 1.21f) *
- Heavy Industry Asset no longer initially present for Tech Level 5 start (Should be player choice if he wants to build this as machinery can be done by workshopping as well and Heavy Industry uses a whopping 200 Energy) *
- City Level downgrade rules work again *
- Traders now are looking to buy from other Traders at (Sell Price + Sell Price + Buy Price) /3 instead of (Sell Price + Buy Price) / 2. This should lead to increased trade between different Trade Areas. (Thanks Voker57)

- Much reduced the effects of a high monetary constant on Traders price when buying from you (should in some mid-late games result in better prices for selling to Traders) *
- Furnaces are now in the Energy Sub Tab + their description is fixed *
- Private Scavenging Asset now also produces 10 rare metals per round *
- Power Plants gets a boost from Fuel Efficiency Tech now *
- Solar Panel output is about halved, but can be much improved with the new Solar Energy Efficiency Linear Tech (applied engineering) *
- Tech Level 3 start (if regular difficulty or higher) now starts with just a Degraded LE Battery instead of Degraded LE Reactor (30 Energy instead of 100 Energy) *
- Solar Energy Tech now in line with other Tech in same Tech Group (thus now easier to discover and research) *
- Solar Panel Assets now cost 1 construction round more to construct (and thus level 1 construction cost is doubled!) *
- Solar Panel Assets now consume some rare metals during production (not a lot, but simulating some repairs need to be made on a constant basis, gameplay-wise it makes solar panels slightly less attractive, improving the attractiveness of the others) *
- Added “Furnaces” basic Tech available at Tech Level 3 start that allows building Organic and Scavenging Furnaces.
- Organic Furnaces require Forest (level 1 in range 1, level 2 in range 2, etc…) and will have 25% per Asset Level to
- deplete a Forest Level. (Note Savannah (75%) and Forested Mountain(50%) provides less, just grass provides 0)*
- Scavenging Furnaces require Scavenge Points to be present in Hex. Will quickly make a dent in Scavenge Points, especially on higher levels as every Energy gained burns 4 Scavenge Points.*
- Tuned down number of spies lost, especially when huge numbers present
- Increased SAM Launcher ammo cost from 200,300,400 to 250,500,800*
- Heavier artillery + Heavier AT + Heavier Flak guns get a reduction in movement due to a movement penalty for heavy weight & resulting manhandling of equipment (going up to about 75% movement cost penalty for the heaviest of guns)*
- Any equipment (like artillery, at gun) being carried with such a negative movement penalty will retain this penalty when being transported (by like trucks) unless the transporters have a positive movement bonus (due to powerful engines) which will offset the negative penalty of the guns.
- Model Designer Director now uses Inventor, Technician and Improvisation Skill for extra rolls on the rolls for Structural Design (Inventor) for first version and for later versions: Base Design (Technician), Armour Design, Weapon Design and Engine Design (Improvisation). If the roll >200 it gets 3 extra rolls for said design variable, >150 2 extra rolls, >100 1 extra roll. (logged in skill log for leader) *
- Model Discovery Task now uses Inventor Skill instead of Technician *
- AI declaring war on Minor Client/Protectorate will now remove Client/Protectorate status.
- Adjusted AI research/development of new Model Types (downwards) and new OOB Types (upwards)
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- Upwards nudges to AI Model Design priorities made (based on feedback from previous beta’s)
- Nudges and glitch-fixes to AI SHQs deleting & adding & assigning & zone merging
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- -Solved issue with AI Makeshift Ports spam.
- -Solved issue with AI SHQ spamming.
- Model Design Decision now also shows option for Blueprints when no Models made yet
- 16+ enemy Units in a Hex now no longer blocks Amphibious Landings.
- Plenty of work on making the AI use Airforces better. (best AI Air results with games started #176 or higher and of course on Planets that have reasonable conditions for viable aircraft)
- Plenty of work done on AI military production priorities (“military en soi” and “civilian<>military”) in

different situations.

- AI Major Regimes now cancel Contracts that are hopeless amphibious invasions
- AI Major Regimes now better plot their target amphibious invasion Hex (using the new Flag of Interest feature also available to human players)
- Reduced AI advantage on somewhat cheaper MTH contracts a bit more, especially at lower difficulty levels
- Made AI sign shorter contracts for amphibious invasions (as it is not sure they'll work out)
- Made AI stop sometimes buying way too big transport contracts (also constraining player shipping in the progress)
- You can now make a Zone trade with the Traders directly (switch between SHQ & Zone added in Trade Window)
- Landscape Type "Base Sea" is now called "Lake" if it is a lake, in the bottom UI
- Made Zone Border changing easier if next to Sea Hex
- Added a little bit of extra Credits for a new Trade Area being formed during play (notably on Trader Area creation with makeshift port
- Some more micro-management flexibility: You can now choose if Zone Unit Supply (Call Gov to discuss Zone Orders) is only for shortfalls or is given before Unit Supply (in which case the latter would complement any shortfalls not provided by the Zone)
- Fine-tuned if a Sea Zone gets captured by an MTH or not, after naval warfare, less captures should take place if not somewhat favorable combat result.
- Private Ports Food + Credits production now also positively impacted by Private Economy Bonus *
- Port Point production now also positively impacted by Logistical Bonus *
- Building a Makeshift Port in a Zone that already has a City no longer results in a free Dirt Road.
- Added MTH Dividend payments to Treasury Report *=requires you to start a new game with this new version for full fix

COMBAT + MODELS

- Added vehicle sheer size hitpoints (not hitpoints vs infantry) positive modifier from size 6 onwards.* to give a nudge to the medium and heavy tanks (and others). Up to +50% for size 10 and higher. *
- With new Model creation Trucks (and to lesser extend APC) get some simulated weight in their engine power calculations so that their eventual cargo is taken into account as well as making playing around with engine size make some more sense gameplay-wise. *
- Population, Workers & Free Folk can now suffer casualties due to structural damage in their hex. It is max 5% if full structural damage. (but this can be much higher with higher Hazard Levels. "Don't fire a gun when there is vacuum outside")
- Unit gets extra Hide Points after 1000mm precipitation in a Hex.*
- The extra HP coming from the AT-Guns protective sloping armored plate (which is bigger and more sturdy with bigger guns) has been overdone (thank you discord) and is now calculated based on the callibre mm value of the gun for HP and half that for HP versus Infantry. *
- AT-Guns are now artillery movement, it made little sense they were foot movement as they will always have to be pulled along rather slowly. (even allowing artillery movement for at/art is already a bit of a gameplay service) *
- I am keeping AT-Guns as rear area, but they can now be attacked or counterAttack if they have fired in the current Combat Round. Subformations can now attack rear area attackers but there are chances it is not possible (1) if (Landscape Hide Points * 1.5) < 1d100 OR (2) if random roll dth(currentEntrench) is higher than 50. (means that AT-Guns will be strongest in Hexes where they can hide or are well entrenched & of course with adequate screening force as was already the case). Note that the attacking side has Landscape Hide Points / 2 and no entrenchment roll applied. *
- Models that are stronger in defense than in attack have more ammo expenditure in defense. Like Infantry, Bazooka, MG. Since these are the postures where they'll have optimal rate of fire (due to less moving around to advance)

GENERAL HIGHER COSTS

- Solar Panels produce optimal upto 1000mm rain due to cloud cover blocking the sun. They take -25% at 3000mm, -50% at 6000mm and -75% at 10000mm rain. Maximum penalty -75%. *
- Hazard Exposure Level is now generated. Based on the level of biohazard, toxicity, temperature, air pressure.*
- Hazard Exposure Level determines exactly how dangerous it is to be exposed to the Planet's atmosphere. On high exposure levels much more engineering attention has to be taken to prevent envirosuits or domes (or any pressurized environment) to have fissures, break downs or what-not. This results in a Hazard Surplus Cost … which is higher IP cost for envirosuits (& personal armour), Assets construction and vehicle construction. *
- Hazard Exposure Level increases Trooptype construction cost with 3 * SIZE/2 * Hazard Level , in IP. * And for "Infantry" just Hazard Exposure Level in IP increase.
- Hazard Exposure Level increases Asset construction cost per round with (max(20,Metal+Rare)/10) * Hazard Level, but reduced for really high metal Assets (as at some point the basic measures are in place) in IP. *
- Hazard Exposure Level causes more KILLs during combat. If any non-kill hit placed and rnd (hazard level * 10) > (rnd (armour mm) + 20) then a potentially lethal puncture / pressure loss has been suffered and the individual subformation will be killed unless it rolls a successful save roll. (40% save chance for regular/militia, 60% for seasoned, 80% for veteran). Any minor aliens, arachnids, mutants, alien critters do not suffer these risks as they are well adapted to the environment.*
- Hazard Exposure Level causes more Population, Worker and Free Folk losses when structural damage is inflicted in Hex where they live/work. Can go upto 50% loss at Hazard Exposure Level 10 (rare!!!) *
- Changed the advised Development Speeds. Normal has become Fast, Slow has become normal, Very Slow has become slow, +a new (even slower than epic before) Very Slow-Epic level has been added. *
- You need 4 techs researched (instead of 3) in a research group now in order to master it (or all of them if less than 4 in group). *
- Linear Tech research is now a bit slower for the first 33 points, after that it follows the existing curve. (resembles more of a hockey stick curve now - feels more realistic) *
- Added flatline metal cost (10 metal) to vehicles for structure & frame construction. (reduces difference between light equipment and heavy equipment) * Truck only gets half this flatline (5 metal), Motorbike no extra costs introduced. *
- Added flatline oil cost (1 oil per 10AP) to vehicles. (reduces difference between light equipment and heavy equipment) * Truck is cheaper only +0.5 oil, Motorbike no extra oil costs. *
- Ammo quantities needed have been multiplied by x1 (for gas powered), x5 (for rifles), to x10 (mg) to up to x15 (for guns). *
- Ammo factory is now available. It produces ammunitions at approaching half the cost of artisanal workshopping. (close to fourth the cost with Industrial Robotization OR Ammo Printing) (close to one eight of the cost with both Ammo-Printing AND Industrial Robotization) * (however keep in mind that ammo consumption has been increased a lot, so the early net result is still that it is more expensive)
- Effect of the Ammo revisions is that it makes simple infantry more attractive in quite a lot of specific cases. Gas powered rifles are also now much more interesting. But more importantly in general you'll need good logistics & serious ammo production to keep an offensive war going. *
- Free Zone Ammo Stockage increased by x20, Initial Ammo increased by x8 *
- AI does not build Ammunition Factories (yet), but gets a discount if it has relevant Techs (yes this gives the AI a small advantage => should be added to the advantages list)*
- Soil Demetallization Asset production has been much decreased (it was actually much overpowered considering it could work anywhere and was more meant as an emergency mining option than the real deal). On top of this Soil Demetallization Tech has been moved one tier higher. Also regular mining resources have been increased a bit. *

BIG PUSH TO MAKE WATER + FOOD (DIRECTLY/INDIRECTLY) MATTER MORE ON SOME WORLDS

- Salinity levels are being calculated now. The more mountain (and less water) the more salinity. Lifeforms will reduce salinity by absorbing it to build skeletons and shell-like structures. Oceans and closed lakes (no outflow) have the highest salinity. Rivers have negligible salinity and (often) so do lakes that have an outflow. Salinity is kept track of on a hex-by-hex basis. *
- Soil dissolved Heavy Metal PPB , Ocean dissolved Heavy Metal PPB, PH levels are now being calculated *
- Salinity + Snow can be inspected in S.MAP > STATS *
- Snow levels are being calculated now *
- Frozen Rivers now give 50% free water compared with non-frozen (due to liquid water far below often; yes at some point i still have to avoid rivers all together in very permafrosty areas)
- Rain collection (for farms or for zone free water) now impacted by rain water acidity *
- Ice mine collection snow from surface now impacted by rain water acidity *
- Ice mine collection ice from glacier now impacted by sea acidity & dissolved heavy metals*
- Ice mining of underground water (actual water drop icon) now impacted upto 66% by dissolved heavy metals in soil*
- Zone free water rules from river + sea/lake now impacted by acidity, salinity and dissolved heavy metals *
- Zone free water collection has been nerfed (halved, and repetitive sources impact reduced) *
- Free Trader Water also impacted like above *
- Water filtration now impacted by quality of river/sea water around it (takes best) *
- Agri Dome consumes double the Energy now if out of Terran agriculture temperature range. (it gets a rebate if temperatures are good-ish) *
- Hex Radiation reduces open farming due to accumulation of radioactive in the plants *
- Hex Radiation reduces water income from rain, sea, river, snow, wind traps, but not from Glacier (can mine deep) and underground Water deposits. *
- Earth Plant Life taking root on a Planet now impacted by dissolved heavy metals in soil and rain PH and can cause the bigger plants not to grow (well). *
- Edibility of alien plants and animals (ANTL) now impacted by dissolved heavy metals in soil. They might not mind, but human consumers would. *
- Ice Mining Asset no longer uses Mining Techniques linear tech, but still uses Ice Mining Economization + Mining Robotization, bringing it in line with the tech modifiers of the other mines. *
- Ice Mining base water income -40% compared to previous *
- Water Purification base water income halved (& energy cost halved as well though) compared to previous, but it negates up to 25% of the water quality penalties (salinity,ph,dissolved metals,rad) *
- Added Tech Water Detox Optimization for Water Purification Assets that allows negating up to 75% of the water quality penalties (instead of the 25% base). *
- Hydroponics Food production halved, Worker requirement doubled. (but keep in mind it is still good and can be 4x better than at start with its 2 linear techs). *
- You can mouse over Water Q(uality) or Rain in the Hex info panel to get detailed info on Water/Glacier/River/Ice/Snow/Underground Water Quality. *
- Mostly invisible to most players, but made the Private Economy simulation a bit more realistic and interacting with actual item prices now. Revisions made to the spending of Credits by Population with the Traders when buying “luxuries” and Assets. Item Market Prices now impact the cost of Asset construction and luxuries buying. Also the Sales Tax now also impacts the cost of Assets and luxuries buying. New semi-hidden values of Private Trade Debt (to Traders) and Private Tax Debt (to Regime) make this possible. Note that Traders will sell at lower prices if market prices are really high as sales are often made to private families and enterprises that are partially controlled or in the same family as traders. (there is a fuzzy boundary between traders and population, traders actually exist somewhere halfway between free folk and population).
- Fixed a glitch in the payment of Private Economy to Traders which was sometimes paying more than necessary for new Private Assets & streamlined-scrapped the arbitrary and bit weird 15%

paid to traders for services, all money is converted into items now.

- Added 3 new Private Asset Types : Farmsteads, Xeno Farmsteads and Dome Farmsteads. They each come in 3 Levels and are smaller more improvised versions of the existing Farms. On Level 1 they only require 1000 population to operate. On top of that the Farmsteads can be financed with loans taken from Traders as well (up to a limit though!). This allows a very small Populace to kickstart an economy sooner. All Farmsteads Levels can be build, even in a Level 1 Zone. Once the 2nd Level 3 Farmstead is ordered in Zone that one will downgrade to Farmstead I and the other Farmstead III will upgrade to Farm Community I. *
- Some Asset Types can advanced multiple Levels per City Level now. The following: Airbase *2 , Truck Station *2 , Rail Station *2, High Speed Rail Station *2 , Public Port *2 , Supply Base *2 , Bunker *2. Note that the new Private Farmsteads are *3. *

v1.21.00 – 12th June 2023

- AI declaring war on Minor Client/Protectorate will now remove Client/Protectorate status.
- Adjusted AI research/development of new Model Types (downwards) and new OOB Types (upwards)
- AI will be able to build Hydroponic Farming more often, but only if enough energy and water available
- Seniority Ranking improved and fixed the false counting of 3rd part leaders in its calculations
- Better sorting for Leader Log
- Avoiding humongous unaligned Zone after they conquer a city
- Minor fixes to FOW rules. Each Hex had 4 undocumented hide points basically, brought back to 2 and shown in a recon box mouse over now.
- Made some serious changes to the AI combat odds calculations, it improves the AI judgement of when to attack and when not: I have noted some promising improvements.
- Zone Merger now has chance to negate rebellion if the Populace of the Zone to be merged is much smaller than that of the target Zone (in such cases Governor takes much less relation penalty as well)
- Note that Unit Feat Penalty on Attack Value might be due to your own Unit Feat or due to Unit Feat of target.
- Zone Merger had small fix to recalculate Zone connections to make subsequent Zone Mergers possible in some circumstances
- Blue Print Tab now better adjusts layout to some screen resolutions (eudaimonster thx)
- Fixed PlanetGen Minor+Major count (tonechild was right)
- Adjusted AI construction importance of Heavy Industry downwards + High Tech Industry upwards.
- Adjusted AI Defense behavior towards more prudent in most cases
- Also made the AI aware of the risk of attacking with more cumulative attacks than enemy has maxAttacked as it can give a false sense of security in raw number superiority for launching an attack
- Artifact map icon only shows if still Scavenge Points in Hex
- Airbase Points required for optimal service now shown in the Hex Stats to the extreme right, on mouse over it shows also the airbase points present at start of turn.
- Airbase Points required for optimal service now shown on mouse over of the graphic of a unit subformation.
- New SHQ is now displaying correct PP cost
- Fixed Robotic Replacement Troops
- Reduced incidence + cost of the Scientific Maritime Expedition Decision.
- Upwards nudges to AI Model Design priorities made (based on feedback from previous beta's)
- Nudges and glitch-fixes to AI SHQs deleting & adding & assigning & zone merging
- Downwards nudges to amount of soldiers the AI is raising especially in early game
- Hard instead of soft caps on air/art/tank % limits to avoid the AI going into an economically unsustainable strategy
- Upwards nudges for AI to conserve manpower for more expensive equipment (tanks/air/guns)
- Upwards nudge for AI to detect it has not enough metal/oil/rare/radio/water reserves

- Upwards nudge for AI for Oil production
- AI will better judge if to put an open (Xeno)-Farm or not
- Made fixes to AIR Model Designing that sometimes blocked it from advancing (due to unviable models)
- Some nudges to AI research priorities that make it focus more on crucial battle techs (not done at Beginner, half the improvement at difficulty Regular, full at Hard and higher)
- Prevented the AI from creating some Aircraft Models without any name at all
- AI now ensures using minimum of BP for Model Design, but not more
- AI now ensures using minimum for OOB Design, but not more either
- Fixed AI concerning replacements by glitch fix and lower XP threshold necessary
- Upwards nudge for Replacement Pool production if many upgrades + replacements possible
- AI now uses the Offer Protectorate, Client, Unification and Annexation Stratagems as well on Regular Difficulty (and even more so on Higher Difficulty) *
- Fixed an experience gaining bug (wtf1337)
- Fixed a windows scaling issue (not 100%) with the intro cinematics
- Added the feature “Discovery Focus”. Can be used by calling the Military, Applied or Economic Council Director. Will focus the Discovery Task on a specific Tech Group. However keep in mind that BPs spent while using Discovery Focus suffer -66% penalty due to forcing your inventors in a certain direction and stifling their creativity. *
- Added the option to filter specific “legenda keys” in the Statistics Tab (either by clicking on their name in the top or on the tiny blocks in the graph itself, click anywhere to reset, right click to select multiple, left click to select one)
- Alien wildlife now also attacks Mauraders in same Hex. *
- Mauraders will be much more adverse to enter wildlife Hexes now.
- Added a tiny bit of variety to Maurader Units *
- Some Maurader Units now act more as Garrisons while others have tendency to move around a bit more *
- Unaligned Free Folk settlements now sometimes produce new Maurader Units. (400k free folk will produce about 1k new marauders per turn) *
- You can now Mothball and Close Port Assets as well. It was mistakenly resetting to production after the end turn every time.
- Fixed some glitches in Asset Management Tab (negative numbers in red)
- Fixed glitch in specific Asset production mouse overs in the right pane of Asset Management Tab (was showing preview instead of regular)
- Fixed AI glitch where it would launch a “phantom” air attack without actually having the Units that could execute it (air related at really short distance from airfield)
- Fixed 2 different bugs that caused crashes
- Solved issue with AI Makeshift Ports spam.
- Solved issue with AI SHQ spamming.
- Model Design Decision now also shows option for Blueprints when no Models made yet
- Fixed a glitch in the Airbase Points effects
- 16+ enemy Units in a Hex now no longer blocks Amphibious Landings.
- Plenty of work on making the AI use Airforces better. (best AI Air results with games started #176 or higher and of course on Planets that have reasonable conditions for viable aircraft)
- Plenty of work done on AI military production priorities (“military en soi” and “civilian<>military”) in different situations.
- Fixed glitch. Major AI on higher difficulty level now has its combat Bonus also against Minor Regimes / Unaligned. And also included some extra Combat Bonus against Minors on top of that fix to offset the higher Minor Unit Count that was partially undoing the desired difficulty level. This fix and boost should impact quite a lot the early expansion phase on higher difficulty levels.
- Added preview of Design Log to Blueprints Window
- Fixed a turn processing crash (Mark)
- Fixed another turn processing crash (Mikko)
- Added Air pressure in mbar to Geology Planet-Gen window

- Road Building now works the same with Oceania DLC and without
- Road Construction now needs to start on a road hex that can trace over friendly Road Hexes to a Road Hex with Logistical Points (initially at start of turn) connection to the SHQ of the Zone (where you selected the Hex). This makes it work both with Islands and regular play and does not allow magic transfer of IP/Metal to construct anymore (like before 1.20o)
- AI: Fixed analysis of units:Hex ratio with Oceania DLC active; This should lead to substantial extra production of Units; Quite a serious fix
- Started work on AI being better at using Airforces. See the points below:
- AI: Improved desired Air Units calculations and made AI less cautious in producing Air Units
- AI: Decreased the negative impact on Air Unit production by low unit:frontage ratio & high recruit count waiting for placement
- AI: Added a conditional (if not enough are present) boost for Aircraft Production (and Tank somewhat as well)
- AI: Aircraft favor creation of New Units over OOB Upgrades (larger sized Units)
- AI: Improved AI Aircraft Quality Settings evaluations
- AI should research more Air Techs now (it only really did so if it had a preference for Artillery Tech Path before… Offensive mindedness now also is a modifier) *
- AI is making better Air Models and a lot of cases where it got stuck with a non-viable design have been solved
- Added Blueprint Tab in the Management Screen. You can use this Tab to create Blueprints for different Model Type Designs and then when the Decision come up just refer to the Blueprint instead of going through all the steps. This should especially make designing Aircraft (notably being Unviable in many combinations of choices) much easier to do.*
- Fixed a bug where Pro-Piracy could explode in weirdly high values for no reason! (especially when it shouldn't do so at all)
- Fixed a bug with AI processing crash

v1.20.03 – 11th April 2023

- Fixed a crash during turn processing related to one of your Zones (temporarily not having a City)
- Fixed a graphical glitch when keying (9) through your Units while having the Asset Tab open
- Fixed a crash during AI processing (related to rebels)
- Fixed an edge case rule where Port forming new Zone got delegated to old Zone
- Fixed a relatively rare but annoying occurrence of a Zone ID getting swapped during making a Zone Decision due to interaction with other Zones while the Decision Tab was open.
- Fixed bug with Renegade Elements Decision
- AI Major Regimes now cancel Contracts that are hopeless amphibious invasions
- AI Major Regimes now better plot their target amphibious invasion Hex (using the new Flag of Interest feature also available to human players)
- Reduced AI advantage on somewhat cheaper MTH contracts a bit more, especially at lower difficulty levels
- Made AI sign shorter contracts for amphibious invasions (as it is not sure they'll work out)
- Made AI stop sometimes buying way too big transport contracts (also constraining player shipping in the progress)
- You can now make a Zone trade with the Traders directly (switch between SHQ & Zone added in Trade Window)
- Fixed crash on trying Replacement Troops order on a Unit without a HQ
- Landscape Type "Base Sea" is now called "Lake" if it is a lake, in the bottom UI
- Made Zone Border changing easier if next to Sea Hex
- Added a little bit of extra Credits for a new Trade Area being formed during play (notably on Trader Area creation with makeshift port
- Fixed a rare issue with faulty Demand being made when you had lots of very happy Factions (>90)
- Fixed issue with Road Construction now being possible from a road that already has >=10.000 Logistical Points (Solops) & fixed issue with road construction being possible from a non-road

Hex.

- Fixed the “Sell Share” Stratagem, it was not functioning at all. Should be good now! Now restart required, just this new version.
- Some more micro-management flexibility: You can now choose if Zone Unit Supply (Call Gov to discuss Zone Orders) is only for shortfalls or is given before Unit Supply (in which case the latter would complement any shortfalls not provided by the Zone)
- Fixed Radiation Leak Stratagem *
- Fine-tuned if a Sea Zone gets captured by an MTH or not, after naval warfare, less captures should take place if not somewhat favorable combat result.
- Fixed only 1 of the Leader Recruitment Decisions showing up with a MTH Alliance
- Glitch fixed with Private Ports not producing Private Credits *
- Private Ports Food + Credits production now also positively impacted by Private Economy Bonus *
- Port Point production now also positively impacted by Logistical Bonus *
- Building a Makeshift Port in a Zone that already has a City no longer results in a free Dirt Road.
- Fixed Corporation Tax Paid not resetting to 0 every round and screwing up the Treasury Report
- Added MTH Dividend payments to Treasury Report

v1.20.02 – 3rd April 2023

- Fixed a crash during AI processing (Terve)
- Fixed a very annoying error with some of the MTH auctions, causing you to win but not receive the share! Fixed now!
- Fixed issue with faulty game Victory (but was caused by another bug in population variable)
- Fixed issue with AI causing negative Population variable doing reallocation of its Colonists
- Fixed a crash during AI calcs (caused by MTH Alliance breaking up)
- Fixed issues with farms Assets being present with City State Planet Generation, but them not being of a high enough level to supply enough Food to your Population. *
- On some Planets with Terran Agri possible, but no alien life, nor plant life introduced during Colonization, the game was not allowing you to construct Farming Assets “because too arid”. This is fixed. Also similar fixes that were preventing areal expansion.
- Fixed the actual cause of the bug above in the Planet Generation algorithms. *
- Fixed game hanging during the AI Init phase and fixed some botched AI Zone Mergers at the same time.
- Improved negotiations for Transport Contract. You can now choose between different Transport Targets , demanding a New Proposal and Postponing. When demanding a New Proposal you can put a Flag of Interest with one the current Targets, to get more similar ones the next round.
- Any map-related crashes (screenshot/scroll) due to Resource Rumor usage will be fixed with this patch without having to start a new game (just reload old save game)
- Penalty on Logistical Points entering a Landscape Type without a Port now shown in Landscape Type mouse over. (also made small calculation rounding fix on their actual application)
- Good relation with a rich MTH will make the MTH invest more in your land-based Traders if they are lacking Credits (done to help Major Regimes a bit recuperating some Credits from MTHs - ideally in the future the MTHs would be doing something with the influence they are buying with the land-based Traders)
- Made fixes to Windowed Mode

v1.20.01 – 31st March 2023

- Glaciers on the Planet have a more realistic impact now… Glaciers have much less chance of housing Minor/Major Regimes, no resource Hexes, lower population levels during simulations, less alien wildlife / marauders and no Hex Perks. *
- Sea floor depth calculations much more realistic now (was always a bit on the shallow side)
- You can now transfer Items from SHQ to Zone Inventory or the reverse: from Zone Inventory to SHQ. Use the SHQ Transfer order to do so.
- You can now give the Governor of a Zone the order to supply Units in its Zone if they are missing supplies (not delivered by their SHQ for some reason). This takes place after Zone Production

phase and before Zone Returns phase.

- Logistical System Pull Point algorithm has been revised to better function when there are less Logistical Points available than that are needed by Cities,Assets,Units. (it might also have become a tad slower lets keep an eye on this and any other possible complications!) It would be nice if anybody could try a new game with special attention to if the pull points of the logistics system are working well *
- Continued fixing the Posture Stratagems (was not fully done in 1.12b turned out). It should now really apply to all units immediately (or be removed from all units immediately).
- The change of the retreat % by a Stratagem is now immediate for all units (as well as when you remove the posture)
- The weird “no hitpoint attack penalty” for Recon in Force Stratagem has been replaced by “no attack penalty”. Textual upgrade requires restart*functional upgrade works on all versions immediately. This Stratagem now works as intended with the 20% retreat penalty working in tandem with the “no attack penalty” providing a powerful (surprise) attack, but one that gets canceled quickly if the going gets tough.
- Fix with renaming Formation Type button being disabled for non army/div
- Fixed S&S Editor again (crashed again for yet another Oceania related thingy, apologies!)
- Bio Fuel production now costs 50% more food.*
- Solar Panel Energy production decreased with 33%.*
- Volcanic Energy Plant production is increased, slightly at low levels, but increasingly more and more at higher levels.*
- Solar Panels production is variable based on solar irradiance of the Planet. Can result in upto 50% or more on cold Planets and upto +50% or more on really hot Planets.*
- Deepcore Gas Extraction production now up to 3 times higher if Planet has really thin crust (say Planets a bit younger than 2 billion years).*
- Methane Synthesis production now up to 3 times higher if Planet has lots of CH4 (say 1.5% or more).*
- Methane Synthesis Tech and Asset now have the correct condition (was linked to CO2 instead of CH4), minimum 250ppm CH4 in atmosphere needed. Things now correspond with Tech description and manual*
- Fixed some formulas concerning Methane in the planetary gasses simulations, its mostly based on decaying organic matter. The less oxygen in the atmosphere, the longer the life on Planet existed (the more natural gas will be released) and the colder it is (reduced microorg. reduction) the more CH4 will be found. *
- Fixed a rather big bug with only Militaristic cultures being chosen on planet generation (republicans and theocrats, etc are back!), even extended the language options used a bit as before for example Militaristic was indeed always germanic language, now it just tends to be ;) *
- Water bodies have more average temperatures and are now having a moderating effect on nearby land hex temperatures. *
- Made a series of algorithm fixes to Traders that were not buying enough at game start since several beta builds. (thx grogheads forums)
- Fixed some Planet Generation with cases of rivers not ending in lake/sea.
- Improved AI estimation of enemy strength based on enemies enemies as well.
- Finetuned Trader algorithms and private item sales and buys.
- Less cases of oversupply of private food/metal/oil to Traders by the Private Economy.
- Irregular demand from the Private Economy for higher tech level stuff at lower tech levels. The fact that nobody can make it, doesn’t mean they don’t want it. This might well see rising prices of high tech items in the early game.
- Overall increase of commerce between Trade Areas, but not for between major and major without Trade deal.
- Traders in lowpop Zones will try to construct higher stockpiles of goods that are selling well (being the middleman)
- Traders selling to other Traders now haggle better and will make more profits.
- Traders now also consume some Items to keep their operations running, initially just food, oil, metal and water but if Traders are inside a major regime with higher tech level other items might

be consumed as well (like rare(4), machines(5), hitech(6), atomics(7)).

- When selling to Traders, Traders will not be inclined to spend all their Credits*
- Traders increase their shop qty if they see they are selling well, trying to supply their clients with higher qty's.
- One of the AI rules is that they are allowed much higher item stocks than human players; I countered this effect for the AI sales to the Traders weighing in very heavily their actual surplus production that round for their sales.
- Made some minor improvement and fixes to AI algorithm that is moving its forces
- You can now use the replace order to replace human infantry by robotic infantry (this is however not an equipment swap, but a full swap)
- Fixed crash with S&S Editor startup
- Now when you change Posture that changes retreat% it will be changed immediately
- Skill effect on combat is now properly previewed, its calculation method was feeble at best before
- Fixed big oversight with rename Formation Type introduced with 1.12. This is now fixed. You can only rename Custom Formation Types.
- Fixed bug with not being to play for example Plea of Friendship on a regime it should be possible on (probably will fix some other cards to with similar inexplicable not playable behavior)
- Fixed bug that prevented Replacing, Upgrading troops in Unit that was at same hex as SHQ but with 0 Logistical Points available
- Fixed bug with Commerce that was resetting from +++ to + due to rare bug in Corporate Story Module. Poof… that one was hard to find…
- Fixed display and calculation glitch with Supreme Command council repeating for each tasksuppart that more than 100BP is being invested.
- Fixed some beta game crashes (voker57) , related to badly seperated code for new DLC, sorry!
- *=needs to be a newly started game with this version or higher
- Fixed a crash during AI play experienced by all caused with first 1.12 version.
- Reworked rainfall algorithms in general *
- Nudged the rainfall algorithms resulting in slightly drier Planets *
- Added some windshade rules where mountains can block rainfall *
- Added some temperature difference rules on rainfall. As in cold air moving into a warmer area gives less rainfall and warm air moving into a cold area gives more rainfall. *
- Higher windspeed planets will have a lot more fuzziness to their rainfall than low windspeed planets *
- Relatively small lakes/seas have reduced impact on air vapor content * (tradeoff between simulation and game made, but result should be more realistic especially on planets with more water surface)
- AI: Reset OHQs (And independents without OHQ) properly to SHQs if AI territory gets split between several SHQs.
- AI: Fixed some important economic calculations in case of a split between several SHQs
- AI: Fixed a crash with at least one Decision on sending envoys to participate in a celebration (Max)
- Improver Trader behavior concerning buying items from Majors… they'll now offer to buy less of Items that are not really a good investment (Phyroks)
- AI: Fixed bugged judgment on recruits in some cases where there was a split between several SHQs
- AI: Improved flawed calculation when to buy replacement troops or not. We should see much more AI replacement troops arriving now. This might well be quite a big thing in AI effectiveness.
- Free Water for Zones is increased by multiplying the current riverlake gift (5.5.3.2) with the cube root of the number of hex sides . If highest rainfall hex *4 is higher that value is used (used to be average rainfall hex for zone).
- Free Water for Assets (open farm) now gets water for each Areal Hex with rainfall as well (but only a quarter of that received for the core Hex) *
- Finetuned the Vegetation algorithm which was rather often placing forests in hexes where rainfall was really too low for them, even allowing for microclimate conditions. *

- The Light Tank model has been slightly downtuned. It can now maximum use 50mm of armor (instead of 100mm previously).*
- You can now use the mousewheel to scroll the listbox(es) in the REPS tab, STRATAGEM tab, STRATEGIC MAP tab, OOB tab
- You can now rename the Formation Type of a Unit in the Formation Types Overview Report. It also gives you the experimental option “rename all” which will also attempt to also change the names of the Units already onmap belonging to that Formation Type.
- Removed “drawing type” from Model Management Tab in the Tech SubTab, it is an internal variable that does not need to be shown to player.
- Air combat fix: Thopter, helicopter and VTOL based in the Hex under air attack now actually join the air battle.
- Air combat fix: Doing strategic damage will now always cost ammo.
- Combat fix: Troops killed now lose their part of the supplies in the process
- Combat detail window fix: Some confusing reporting with “0%” modifiers has been removed
- Changed wording for a PBEM Cheat report. Since it could also just be someone playing from different PCs (or having done a reinstall of the game)
- Fixed a combat crash due to excessive number of units on defending hex (burnrate + solops)
- Fixed the faulty underlying AI decisions for creating that excessive number of units of the above error in the first place
- Increased hitpoints for ATGuns, especially if higher callibre guns (more and thicker armour plate) and on top of that doubled their hitpoints if attacked by noninfantry troop types (like tanks for example) due to their deployment mode, rapid counterfire and low profile. This should make ATGuns more interesting to use.
- Trucks/APCs will now be added to Custom OOBs when you are adding Flak Guns or Manpads (elver)
- Fixed some season name typo’s in 16 season planet setup *
- Nudged the amount of forced sale items the local Trade House will buy (phyroks)
- You can no longer add Reinforcement Types to a Custom OOB that have not yet seen a trooptype developed
- Fixed mouse for political bonus (phyroks)
- Fixed a crash with a decision on a Regime that no longer existed due to it joining another Major upon declaring war
- Fixed a few typo’s (christian / battlemode)
- Added player protection for playing Plea of Friendship on a Regime on which it will have no effect (like the Arachnids)
- Fixed the transfer limit of 3 individuals for the SHQs, you can now transfer the last 3 out as well.
- Fixed major AI bug with 1.11.07 ! Thanks for spotting guys! Apologies for this
- You can now freely switch Airforce flag on/off during Planet Generation (no longer blocked after restart and requireing you to quit the Planet Generation and press new game again)
- Added Unit Weight statistic in the first unit subtab. Could be useful for considering Strategic Movement (which requires 1 Logistical Point per Weight Point)
- Added the much requested Reroll button for the final Planet generation phase
- Added the text of the Stratagems to the mouseovers because in some rare cases there is too much text on the Stratagem.
- Fixed the number of trucks / APCs in the Heavy Motorized/Mechanized OOBs *
- Fixed a number of Decisions where the writer was referring to the title of the leader of another regime using your own title instead of theirs. *
- Really hope to have fixed a number of silent crashes caused with one of the last open beta’s; I cannot reproduce crashes anymore; but keep an eye out and keep me posted please!
- Because nonaligned regime is basically in reality “many regimes” your Regime Recon Points no longer result in getting extra Zone Recon Points (you’ll need to have actual spy in specific zone)
- Finetuned the Zone algorithm to avoid huge nonaligned Zones in some weird exception cases. *
- Finetuned the workings of the CommerceBonus that was not completely working as I intended and upped its usefulness quite bit for when you are selling to Traders. Commerce Bonus allows

your Traders to outwit other Traders when trading with them, resulting in them buying cheap and selling high. Furthermore the higher your Commerce Bonus the lower their margin (the higher their buy price will be) when dealing with you.

- Fixed a glitch with OOB Customization where you were allowed to add reinforcement types not yet available*
- Sped up the reactivity of the multiple choice questions at game start
- Traders now capture some free water (rivers, rain, lakes), like you do, to augment their stocks. This should help avoid the Water price being too high. Your private economy does the same.
- The Traders pricing algorithm has been revised. They were trying to create stockpiles that were plainly too big. They are now trying to maintain more realistic stockpiles. New games will also reflect this in the startup qty's.
- Also the price point when selling to Traders is going to be lower than before if Traders already have enough stockpiles of the Item Type. Traders are now also putting a minimum price cap on really "cheap" items.
- Furthermore when determining the price to buy they make their current inventory count weigh more, especially if they have a lot.
- Overall the Traders will be a lot rougher with you and much less willing to buy Items from you that they cannot sell elsewhere. It will increase the game difficulty.
- Repaired some errors in Trade Reports that was showing false Imports/Exports statistics for your Traders (and Trade data of other regimes)
- Expect some rather serious price swings in ongoing open beta games (towards lower prices for some goods mostly), but this has to be tested, so sorry for any economic shocks.
- Ruins are now named after their old Colonial Zone/City name from before the Dissolution war*
- Some new regime names appear now and then as well, named after their old Colonial history*
- A little more regime name variety as well*
- Created mouse overs for the results of Stratagem play and Decisions if the return text contains the word "roll". If so the latest roll details (since execution) of friendly leaders are displayed in the mouse over. (this new addition will need some open beta testing as the number of scripts that might be executed are huge)
- Planets can now have even slower orbits around their star, leading to more seasons, of increasing severity (due to their length)
- Made some changes to the initial Management Screen settings for Leaders and Assets
- Increased maximum sea surface on Limos Planet Class a bit.
- Further improvements between rivers connecting lakes/seas among others by sometimes creating some flood planes between lakes/seas to allow them to connect.
- Rivers can now be much longer on some Planets, making them feel a bit more impressive and creating interesting maps.
- Fixed a small inconsistency between skill roll predict and final skill roll (relation modifier was added on top of total in preview, while i reality it just modifies the d100 which value will not surpass 100 or go below 1)
- Fixed a small inconsistency between skill roll and prediction where negative effect of 25 of secretary was often not completely taken into account.
- Fixed a (i think) recent discrepancy of qty of enemy troops between bottom interface and trooptype popup (when limited recon and qty guessing)
- Reworked the river systems. Lakes will often communicate water now, depending of course on if this is possible and no hills are blocking this. This gives more realistic and more interesting maps. There were some really weird maps before with for example big rivers ending in tiny lakes just a few hexes from a big ocean.
- Added mouse overs to the Skill Roll preview in Decisions Tab and Stratagems Tab (DasTactic insisting convinced me to improve things at least a little bit). It's the probable calculation at the moment and I think this addition will require some feedback / bug catching before i'll dare to call it "Skill Roll calculation details".
- Fixed some crashes (caused with 1.11.0x open beta earlier) with generating Planets (especially those with big bodies of water).
- Militia Parade event is now randomly called (focus on start game though) *

- Profile change Demands made by Factions should be more rare, but also give you much more time to realize them (double the time at least).
- Tuned down a bit the number of Faction Demands in general, especially when you were refusing a Faction (pissing it off even more and making it more likely to demand more) it would come back a bit too quickly. Delay of renewed hassling now at least doubled.
- Resolved a hard to comprehend issue with oil seemingly disappearing from SHQ. However it was not a bug, it was oil sent out with SHQ tank autoreinforcements to units. I am now logging this kind of complementary item transfers to be included in the SHQ item bar mouseovers.
- Fixed Corporate Board Member Card, it is now giving the correct and immediate relation bonus 5d10*
- Fixed an issue with inter Tradehouse trade not being reported
- Doubled the PP cost for Disbanding an Asset (to make it cost you a bit more to use scorched earth policies
- The Election Report is now truncated for Zones and Military Units (as in the large empires there would be more text than paper available)
- Fixed a bug in story import at start of game causing the issue reported by emx77*
- Fixed some private construction without dirt road reported by Bavarian Kid
- Convert of Rail Stations level II and higher to HS Rail Stations now possible. Doing this costs you a level and will take 1 or more rounds of reconstruction activities. The Convert button can be found in the Assets Bottom Tab.*
- Improved AI behaviour in better defending cities
- Fixed a portrait graphics glitch with some uniforms
- Reduced usage of AI Siege Posture for OHQs low on artillery/infantry
- High Tech Level 1 production worker+energy cost slightly increased
- Fixed a few profile decision glitches in the diplomatic category
- Fixed issue where losing HQs and reforming them could screw up the numbering system of the HQs and could cause HQs to have more than their maximum units
- This open beta is also testing of changes for next major feature Oceans are not inadvertently screwing something up (nothing to see yet! its only testing of behind the hood stuff!)
- Fixed a crash during AI phase (Tortia Tertia)
- Attacking with your full OHQ (including HQ) no longer diminishes the concentric bonus
- Fixed crash during aiTurn (rivers)

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- Fixed glitch where you could keep declaring war with artillery attack mode (atherys)
- Properly showing current AI moving during AI moves realtime history in left corner (kopjeagga)
- Added Oceania testing Credits to Credits (if you want your real name there instead of alias or if I forgot somebody important or even less important (not necc yourself, but maybe also an other tester that deserved to be in the Credits) you can always ping me or mail me at vic@vrdesigns.net)
- The Planet Size now flag now stays applied while you flip through the different tabs. (battlemode)
- Increased the AI calculation speed concerning Oceans analysis (about time!)
- Fixed plenty of crashes reported due to same issue with Advice option turned on with Oceania, should work now! (Battlemode/Voker/others)
- QA of the Zoning Algorithms done. Sea Hexes can no longer join land hexes (it happened in some very specific circumstances). Zones don't keep resetting and renaming (happened rarely, but horrible). Nonaligned capturing a City doesn't result in chaos anymore. City Level of Zone now automatically upgrades to 1 if a Port is present (this already happened with Makeshift Port, but it now also happens if for example City is taken and just a port in your hand on the island remains). (Big thanks to kopjeagga for saves catching the bug(s) in full glory)
- Tuned down frequency of Alliance request by MTH, also requires relation >50 now. So it does not bug you if you do not even like them (or vice versa (depends on the POV))
- Made some fixes to the Trade algorithms (Voker)

- Improved AI Trading algorithm for buying construction Items need and workshopping of Machinery (which will improve the speed of AI Asset construction which had been lagging behind a bit on Oceania maps especially)
- Improved AI Overseas expeditions & war declarations algorithm to take better into account where it can actually reach (and stop more cases of AI staying stuck on starting island)
- Improved AI Force Ratio calculator for Ocean Planets. Should result in the AI feeling more safe from imminent obliteration (since a lot of Zones now potentially border with Naval Transport possibility)
- Improved Zone Economy management for Ocean Planets. Especially constructing Assets in Core Zone and not on abandoned Island under same SHQ or with no Populace (ecoLevel<=1 should not be considered)
- AI can now Merge Zones, which is bloody necessary with the Zone creation around Maritime Invasions.
- Fixed the wrong naming of Hex Perks as Rivers *
- Fixed issue with MTH Leader replacement having borked name
- Fixed issue/crash with Asset/Zone dropped in lake somehow
- Fixed issue with MTH Split Stratagem
- The AI is now better progressing through its internal Stages of economic development.
- The AI is redistributing some Items now from its less important item pools (to avoid deadlock situations)
- Improved AI Trading algorithm for buying construction Items need and workshopping of Machinery (which will improve the speed of AI Asset construction which had been lagging behind a bit on Oceania maps especially)
- AI now also prefers buying Rare Metals if price of Machinery is too high
- When in Alliance you'll get more offers of Recruit MTH Leader a bit longer *
- Added a "Resource Rumours" Stratagem for your Secret Service Council that you can play on coastal Zones to obtain possible info on undiscovered resources, discovered resources, hex perks and treasures. You select the target Zone you want the info on and your Secret Service will target the MTH that is most likely to have relevant information on this Zone and find informants. *
- Fixed small glitch that caused all possible Pirates to activate at the same time (now separate rolls for each potential Pirate Minor)
- Planets with high rainfall have some more erosion now. *
- AI that starts landlocked will now build port(s) to get any Maritime adventure kickstarted once Regime reaches coast.
- Added River names to the map. *
- Reduced # of human players and start zones options on smaller Ocean Planets (xlarge stays same) *
- Added code to prevent Naval combat message making no sense (more ships sunk than engagingelver)
- Fixed a small FOW glitch in "map known" mode (on the name of some Hexes you could not know) and removed some rare City map labels that were showing up partially (because actual hex obscured)
- If you block a Zone from sending ALL items to SHQ it still sends it excess Stockage Points now.
- Fixed exploit where you could still sell water (when super abundant) 1st turn
- Tethys Class bit more water
- Random Planet Class now also spawns Oceanialike Planets
- Hydroid Class a bit more fragmented
- Fixed calculations for topMTH (an invisible variable that tells events which MTH your doing most interaction with) (elver thanks!), this was generating faulty decisions (with wrong MTH) (could take 2 turns with this subversion to completely reset wrong behaviour)

- Fixed some events where rebels where spawning on top of enemy units (while possible to avoid)
- Fixed the support rebels (minor diplomacy event) to make sure combat ensures if rebels popup on top of enemy units
- If Tech Start 4+ (or difficulty beginner) you get 20% income tax at start of game

- MTH AIs go to war earlier again (it had become way to rare for them do so)
- Fixed some weird ship construction surpluses for AI
- Fixed some weird (buggy!) combat results for naval battles. Was a bit of a mess, should be good now. Keep an eye on it if you see anything weird!
- AI will try to buy a bit more shares in MTHs
- AI will try to be a bit more creative with its Influence Points spending
- Switch the Card pics around for MTH Fate Stratagems*
- Bug fix in the actual Logistical Points calculations for Transport Contracts, It was doing quite a lot of wrong calculations. Went over everything meticulously and the calculations now seem to work as promised with 1.12t. But please keep a close eye on if the Logistical Points given under difficult circumstances (not enough port points) makes sense.
- Fixed a Crash during AI Processing (Peter)
- Fixed a Crash during AI Processing (Eric)
- Fixed labels on MTH Report simple map with missing labels if partial
- Makeshift Port now repairs itself too
- AI fix. It now picks closer landing sites (with MTHs it is actually in communication with as well)
- AI pays bit more for Transport Contracts now
- AI fix where it would sometimes screw up and get multiple Makeshift Ports on the same Hex
- AI better invasion support especially for supporting multiple footholds on a continent
- Fixes in AI Transport Contract targets
- Fixed the MTH Contracts Reports that was wrongly getting updated by Preview Logistical Layer
- Increased the probability of MTH Leaders to show up in nominations a LOT ! (if you have alliance)
- Fixed the Alliance rules on MTH Leader relation degradation.
- Fixed MTH Alliance Review Decision (thanks Elver!) *
- Added a second MTH Recruit Decision if you really need a lot of MTH Leaders to keep your side of the Alliance deal
- MTH Alliance advantages start kicking in a bit earlier now
- MTH Overview Report fixed color coding/ sorting issue + renamed the columns + added recon level on MTH + the MTH recon rules are now fully respected concerning Ships + Zones info.
- High Tech Industry & Private Oil Well Assets now also count towards promises (Industry , Mining Levels respec.)
- Made quite a big repair to the assigning of Vegetation types to cold Zones. Expect vegetation to pop up more towards the poles now.
- Fixed a glitch in the AI SHQ removing and adding code that could cause a flipflop situation to occur
- Fixed the issue with Budget %s when 1st Council is added (Das)
- Fixed bug with Force Majeure rules deleting contracts
- Fixed a thingy with bad setup of Airforce/ Oceania Flags in Planet Gen causing a bug on first turn execution.
- Added 3 special Oceania Fate Cards: Change of Heart (1FP), Stock Emission (2FP), Maritime Breakup (3FP)
- Improved MTH Contracts Overview and made Transport Contract entries clickable.
- Once clicked you have the option to RENEW or CANCEL the Contract.
- Added Force Majeure rules for MTH canceling the Contract because of loss of Target Sea Zone.
- MTH visibility and 1 Recon Point on known Sea Hexes is now coherent with Partial FOW mode (and the other modes)
- Fixed a rare first turn crash due to MTH labels on map (previous subversion)
- Glacier islands now get different names
- Reduced the number of sea battles quite a lot, especially for less aggressive MTHs. This will give you much more time to observe and react to changing MTH areas.
- Contract execution Ship shortages now calculated on the basis of ALL Contracts instead of just the current player’s Contracts.
- Modifying Ship Shortage rule now for less Logistical Points used due to Inadequate Port Points on Contract
- Port Points are now “consumed” based on the actual Logistical Points that are possible (due to

limited Port Points on other side) for a Contract and not its optimal Logistical Points. The Ship shortage rule also takes into account how much actual Logistical Points are going to be used (and not the ideal)
- Fixed some glitches in the Logistical Points calculations for Transport Contract execution
- Some final fixes for FOW on MTHs and Partial FOW mode. You can now always see all MTHs in Partial FOW mode. It's more consistent that way.
- You get a Vidcom notification when a Transport Contract is about to expire. (and also if there is any Force Majeure event)
- Changed the Auction bidding algorithm so that everybody bids "blind", this is done to avoid the later bidders to have an advantage.
- Transport Contracts no longer work if you lose the Source Hex, but they don't get canceled automatically either (and loosing target hex is okay)
- The initializer messages are no longer shown in Reports.

- Fixed grassy Mountains appearing in areas to cold or dry
- Fixed forested snow mountains sprite transitions with low snow mountains (masterfile update!!!)
- The new +50 DIFF for some Minor Regime Stratagems for Land Border in #153 was showing the wrong Preview Diff. Fixed now.
- Fixed bug where airforce was still like half active if you unflagged Airforce in Planet Settings
- Fixed air attack modifier for Forested Mountain Landscape Type. Is now 50%, just like regular Forest.
- Expansionist Rating properly shown with Elder change message*
- Added MTH Icons + names on main map
- Reorganized the Planet Class selection window to support more Planets without much scrolling
- Added Planet Class: Artica, which is cold and has notable ice caps
- Added Planet Class: Tethys, which is hot and tends to be labyrinthine
- Added Planet Class: Hydroid, which is small but with liquid water
- Made it more easy to see Unit Weight at a glance when MTHs are active
- Your own Infuence Points are now displayed in MTH Report
- Showing Port Points for Destination + Source Hexes during Transport Contract negotiations now.
- Added some more Transport Destination Hexes when invading small Islands, or narrow SeaLand connections, to always have some choice where to invade
- Planets without using Oceania Feature (or without Seas) will no longer have access to MTH Liason Task and Port Asset Types *
- MTH Mauraders that you chase away will no longer drop troops (the one ship remark) *
- MTH Buy IP edge case fixed (MTH no longer had contact with Zone due to other events)
- Fixed issue with some delegated decisions concerning MTHs
- Fixed FOW with the MTH Overview Report (was showing MTHs you should not know yet)
- Fixed FOW with the individual MTH Reports (that were showing when they shouldn't)
- Not showing Temp, Rain, Scav for Sea Hexes anymore (in line with info disclosed in Strategic Map and hiding some unpolished planet gen calculations that could break immersion)
- MTHs now earn 100 Credits per Pirate Unit transported.
- History Classes Haven of Calm and Sever Violence impact MTH aggression rating, piracy attitude and MTH Feat chance for Former Pirate and Maritime Imperialists
- Beginner Difficulty Level halves the prices for Contracts with MTH
- Extreme Difficulty Level increases those prices with +50%
- MTH Leader with low relation that's completely dissatisfied will leave instead of mounting a rebellion (MTH alliance related)
- Double checked but on Beginner the Metal deposit should always show up.. get me a planetgeneration autosave if this is not the case
- Offer Protection, Offer Client, Propose Peace, Unification, Annexation are now more difficult if you do NOT have a land border with the Regime the Stratagem is being played on.
- Added the ability to sign an Alliance with an MTH (must have >50 relation and Transport Contract running with it). An Alliance will severely reduce prices, but… you'll need to take the MTHs

Leaders on board in your Cabinet, SHQ and Zones. Their Leaders are maybe young and eager but not the best ones you could get elsewhere. However… this provides you with an escape if you cannot afford the Credits to use the MTHs services.

- Added MTH Feats. Each MTH now has one of 12 different MTH Feats to give it some more uniqueness and replaybility.
- The MTH Profiles were already linked to special Decisions, but they now all also have a “small” other effect.
- Everything has interesting mouse overs in the MTH Report (if you have at least 1 share in it)
- MTH now have a status between them, which can be War or Status Quo. It takes a low relation (and or a lot of aggression rating for an MTH to go to war with another MTH). The other side can also offer peace again. This will result in less MTH wars unless Major Regimes start influencing.
- Many fine tunings to MTH combat , dividends, shipbuilding algorithms, trade.
- There is much log to be read in the MTH report if you have at least 1 share in it.
- MTHs now have a Trade Policy towards Majors. Normally: Fair, but with lower relation can become Abuse or Stranglehold (increase of sell price, decrease of buy price)
- Implemented special trade rules for MTH (Greed Rating impacts prices, Trade Policy impacts prices, Port Points limits to absolutely qty traded, Reduced MTH<>MTH trading because difficult to transfer on the highsea)
- Fixed glitches with the Stratagem Minimap+Seas+FOW that was blending MTH into known but 0 recon land areas (David)
- Reduced chance for Pirate invasions a bit and limited the cumulative number of them (on lower difficulty levels), also giving the player an initial breather with Pirate chance being 0% on round 5 or lower and slowly ramping up to full chance towards round 15
- Quite some finetuning to AI Influence Point usage and Auction bidding, these effects are logged as well (as always 1 share needed to read the logbook of the MTH)
- Fixed initial MTH setup at game start where some splitoffs started with 0 inventory, or only 1 MTH would start on a map with really a lot of Sea Zones, no more!
- Fixed a glitch in scenario init of scripting that was 50% of the time blocking some stories from triggering
- Fixed a rare glitch with Trade if very poor Traders had zero items of a specific Item to start with.
- Fixed some rounding error with Trade Item Inventory, that caused it to lose items of which it had very low stocks.
- Fixed the nonsplitting of Trade Areas once a Regime gets split in half (or similar).
- Some more polish done to the new MTH Report. Sort of final state now. Though some extra specific statistics will be added in the upcoming weeks. Note that this Report has good mouse over support.
- Fixed crash with Airforce generated game upon start
- Fixed big glitch in MTH Dividend payments. Should be payed normally now and process logged as well.
- Fixed two separate glitches in the AI algorithm that (often) caused it to not venture out to other islands (or just with 1 unit) due to recent adherence to MTH rules change for AI Majors. It was trying to target Islands that were not necc accessible by its MTHs. Major AI is now properly invading again!
- Plenty of finetunings done. Especially to the naval battle & shipbuilding algorithms. All considerations are logged as well now (but you need to be in comm and ideally shareholder)
- Big remake of the MTH Reports that now has a nice layout, some info graphics and even some tabs and more information available to browse (be a shareholder though to get all the info) (this new MTH report is not fully finished yet, especially trade needs to be fleshed out still)
- Fixed AI bug that caused it to very often not produce any Regular Troops anymore!
- Fixed that recurring recruit bug for good (got scrambled by the IP sales decision) *
- Fontus Class riverlake mess is really solved this time I think.
- Especially the Thalassa Class has no much more chance to have many separated islands (instead of very long ridges)
- Plenty of small fixes to MTH related calculations

- Added completed Asset constructions to the Construction Overview Report
- Fixed glitch with autoreplacement swapping of robotic with regular forces equipment
- Fixed a Trade Reporting glitch with imports/exports (that did not match up)
- Fixed a bug with the spy calculations (got way too high the more spies there were! Big bug. Big thanks to GazBot & co)
- Between 1130 Zone Recon Points you start having 10 Hex Recon Points on Hexes of Zone, at 30 all Hexes will have 10 Recon Points"
- Between 31100 Zone Recon Points you start having 100 Hex Recon Points on Hexes of Zone, at 100 all Hexes will have 100 Recon Point
- Spies will be more prone to capture if they are more numerous, linear effect… will be hard to keep like 10 spies in a Zone now.
- Also remember there are some antiespionage ops going on. Having security in Zone, having traditional culture, having a Zone Gov with good Covert Ops Skill !
- Capped maximum Factions to 9 and gradual decrease of new Factions appearing once you already have a lot
- Improved Planet Generation tectonic plate placement leading to more interesting Planets
- Pull System fix for Assets Pull Points of Zones without their own Logistical Asset
- Pull System fix for SHQ being located on Zone City without own Logistical Asset
- Fixed exploit in Raise Troops with less than 50% (BlueTemplar)
- Dropped the transfer rule where 0 AP unit is not allowed to send transfers if it has not move/attacked.
- Reduced erosion effects a bit (except for geologically dead planets)
- Reworked some height algorithms, height now also displayed in black during generation (and white shows rain mm)
- Reworked rain effect on river formation (to hot planets had weird effect)
- Reworked river flow once more, result is even better
- Fixed some AI turn crashes (like LockBitmap) due to versight with previous subversions
- Added 9 MTH Decisions that correspond with Profiles. Each MTH has a specific Profile and a specific Decision subset. In practice this means your favorite MTH will drag you towards its favorite Profile, resisting will lead to relation degradation and other side effects.
- Added the base functionality for Minor Regime Pirates that can get MTH help to land on the shores of Majors. Effect should be quite light on easy diff, but more heavy on higher difficulty levels. You can also Influence the MTH on its Piracy Attitudes.
- Better MTH Decision quantity pacing (see recruitment decision issues on forums)
- Improved AI taking into account Victory Conditions better on Island maps*
- Sea Critters now properly retreat instead of surrender
- Sea Critters will perform much better when you attack them on the seas (higher hitpoints* + chance to turn KILLS into RETREATS)
- Fixed some MTH Decisions that were probably not showing up (consistently) due to a scripting error (it concerns: share buyback, offer share, MTH asks for more capital
- Fixed an issue with Sea Critters with aquatic movement entering land as well
- Fixed glitch with Beware Regime decision in influencing of MTH
- Fixed glitch with Zone creation around surrounded Asset (that was not a port!)
- Zones at City Level 0 (yes this can happen when reconquering ports) will automatically upgrade to City Level 1 once 1000 pop in Zone
- Improved AI diminishing relations (especially on harder victory) when a certain player is getting closer to victory conditions *
- Improved AI diplomatics by allowing it to use "Provocation" Stratagems when in COLD mode. Sometimes it would want to go to war but could get stuck with a too high relation level. *
- For Proton users having crashes on startup since subversion N: The engine can now read the 2nd line of the direct2d.txt file, make sure the 2nd line says "false". If this is the case some more advanced D2D functions will not be used. The cause of the bug was the fact that Proton could not use (some) "Direct2D Effects". Especially the AtlasEffect I think. I am planning to expand on using

those Direct2D Effects in the future, so this is something to monitor, and any info on what Effects exactly are supported and not supported by Proton/WINE would be welcome, since I am really a Windows man.
- Fixed some mouse overs of Tabs giving the wrong FShortkey in their description.
- Added Corporate Tax income to Treasury Report
- Fixed glitch where scientific coop could give you a groupName instead of an actual Tech
- Fixed another glitch with the Model calculations concerning vehicles that are immobile (due to engine weight ratio)
- Fixed a glitch in Planet Generation with some flora hexes on lifeless Planet *

- Fixed preview logistical mode individual assets in tandem with Oceania
- Fixed an AI CTD with an AI SHQ in a Zone without a City (EA)
- Sea Critters less often (semi) amphibic on lower difficulty modes *
- Fixed some AI SHQ spamming
- Tuned down Fontus Planet Class swampiness & lake spam a bit
- Slight nudge to Logistical Pull System in some odd cases where traffic signs were wrongly preventing Pull Points being placed for Units (Battlemode Ben)
- Tidy up logic added for some Former Governor cases
- Fixed a skill reporting glitch during Combat
- Fixed issue where a Faction could sometimes be without a Leader (generating some glitchy decisions in some cases)
- Fixed crash with some Mods that removed Stratagems Event Pictures
- Fixed small Model Design issue with immobile equipment (like immobile assault guns/tanks)
- Fixed small Model Design issue with quad normal (notadv) MGs
- Fixed error in Annexation Stratagem logic *
- Fixed some change profile Faction Demands
- Fixed some missing Zone Names (said Unknown)
- Fixed some glitches with supply subtab when ammo + energy being delivered to Unit
- Fixed recon calculations on Zone and Regimes (for Stratagem play, where the Hexes where visible but player did not have minimal recon on Zone nor Regime)
- Fixed issue with double Auctions
- Fixed issue with history icons (air landing + amph landing)
- Fixed issue with AI doing amphibious landings on targets it was not at war with
- Fixed issue with Strategic Transfer not using the best naval connection
- Put fallback in place for unsupported Direct2D functionality (Wine issue)
- Improved Asset Logs to also include the formula's for Bonuses, Tech improvements and Planetary Stats. Not very detailed, but at least the effects are logged and on top of that the raw formula has been made accessible through a mouse over.
- Further speed Improvements of the AI and Processing
- Fixed a major glitch with Air Bridge damage being set way to low
- Fixed a nasty coding issue that was miscalculating Strategic Transfers path finding if Air Bridges could be involved
- Fixed a last 1 mention in the Military Details Reports.
- Redid the layout of the Military Details Report to be more readable.
- Tech test… The initial game cinematics have been D2D accelerated. Not impressive, but the fades between the images should be noticeably smoother. Please do let me know if this is the case or not. This is not the main goal of this change, as it is really mostly about testing this acceleration tech and if it causes any errors on any systems. If all works well I could use this approach to attack rendering bottlenecks in other parts of the game in the future.
- Speeded up the general engine drawing speed a bit (if not using DPI)
- ASAP Fixes of reported crashes (Michal, Greg, EA) (other issues will be addressed next week)
- Added the Aquatic Critters.* Some of them (semiamphibic) will be able to enter coastal land Hexes and some will even be even be able to go further inland (fullamphibic). They however can never enter mountainous hexes. (on the todo list is still to make them impact Logistical Points, especially

if close to your Ports; and the ability to pay MTHs to hunt them; and their ability to sink MTH ships that are on shipping lanes close to them)

- MTH Contracts are now taken into account with Logistics Preview Mode + in the Contract Overview Report
- The Stratagem Explore Contract has been renamed Information Exchange Contract *
- The Stratagem Recon Contract has been added. The Recon Contracts are similar, but more expensive. They do an even better job on revealing Sea Hexes (2x better job versus at least 3x the cost). The Recon Contracts prime use is to gain better Recon on the coasts of the Sea Zone targeted. An Information Exchange Contract will get you 5 Recon Points on Coastal Hexes and 2 further inland. A Recon Contract will get your 20 recon Points on Coastal Hexes, than 5 further inland and then once again 2 further inland. On top of that any Port Hex will provide the MTH (and thus you) with a whopping 100 Recon Points, 20 further inland, 5 even further inland and then 2 even further further inland) *
- The Logistics Preview Mode also shows the Port Points that will be used (and so does the Current Logistics Points mode for those used at start of turn.
- Declare War Stratagem now seperate for Minor and Major Regimes to avoid confusion. Also renamed them Minor War and Major War.*
- Fixed Fontus Class (and others) to not skip on Marine life is not using Water Solvent for its lifeforms
- Fixed varying marriage proposal decision (Elver) *
- Also fixes the same issue for Advisor offered by MTH Decision *
- Fixed a small layout glitch in Help > Planetary Info
- Fixed garbled report over new MTH Elder *
- Fixed sometimes changing portrait of MTH Elder in topright of Decision
- Fixed faulty MTH Contracts Report (was showing enemy contracts)
- Reworked Minimum Recon, You now always have 1 Recon on Coastal Hexes if you know a Sea Hex next to it.
- Finetuned the AI valuation of different Island invasion possibilities (some AIs got stuck on small island with huge continent next to them)
- Finetuned the AI not assigning too much forces to invade/take small Islands
- Finetuned the AI not to skip on big core island still not conquered
- Minor War always available at easy/regular (Elver)
- All MTH Stratagems are now properly and only generated by the Economic Council (2 were generated elsewhere before felt confusing) *
- Population buying Free Folk to join them now sends those Credits to the Traders (that organized and facilitated the Items necessary)
- Small but wrong mouse over for roll prediction thingy is fixed, based on report for Waste disposal Incident Decision, should also help with some other similar Decisions (kojusoki)
- Borders are back during Apocalypse Phase of Planet Generation (was disrupted during a recent beta patch)
- Very very probably fixed some doubled text in Vidcom (EA)
- Fixed some inconsistencies with Planet clicking in Planet choice setup screen (nsf). You can now always click the Planet as well as the button.
- Hiding shareholders from MTH Overview if you do not have the recon on those Majors yet (nsf)
- Black hexes will now show “Unknown” in Zone Tab (Elver)
- On especially easy+regular AI Expansion is a bit slower now (as it is not using Councils and Stratagem generation, I have to manually tune this a bit when it can play which Stratagem)
- Made some adjustments to the MTH behavior in buying ships when needed (they should now expand quicker to keep up with Demand (if they have the Credits))
- Fixed 1 titled report on Asset damage during combat (Elias)
- Fixed 1 entry in Military Details Reports, replaced by “battlegroups” (Elias)
- Strategic Transfer ensures at least 1 Recon Point on the target Hex. This preserves the effect of absent recon, but allows combat to be added to the history log if it occurs. (Elias)
- Increasing the Weight for Transport + Explore Contract to be generated as Stratagems
- Made some last adjustments to Traders investing in each other

- Fixed a crash when you stopped history bar during AI play and kept it like that until AI fully executed
- Fixed a glitch where Minors without any Zone, but still with Units, could go completely inactive while you are fighting them
- Fixed issue with too high Recon Points with Heavy Tank and Tank Destroyer *
- Fixed glitch with vegetation appearing on Planets that should not have it (or not that level) *
- Upped the amount of Credits Traders will spent during trading with other Traders (was to tight and some of them were not buying enough)
- Introduced an extra rule to the price negotiation mechanism between Traders where much higher local asking price than selling local price will result in some serious discounts as the buying Traders know there is too much of a surplus with the sellers to start buying at their own internal market price. (Voker)
- Speeded up AI processing up like 1030% while in the Game Loop Window (not looking at moves while they come in)
- Speeded up AI processing concerning its economic calculations, could result in a final total speed improvement of 10%
- 10%
- Improved the AI processing concerning its BP investments, could result in a final total speed improvement of 10%
- Improved the AI processing concerning the simplest of move matrices used and could result in a final total speed improvement of 10%
- Improved the core AI Front processing with some serious caching operations and could result in a final total speed improvement of 40%
- All together we might have halved processing time, at least for the fast AI, but similar results expected for the other AI speed settings.
- Improved AI's prediction of possible combat outcomes concerning the equipmentused weights (combat matrix related)
- AI now better taking into account the possible combat effects of armor vs gun mm matrix and the armor type vs weapon type matrix
- AI now better takes into account Profile Combat Bonus
- AI now better takes into account obvious effects of core Posture Stratagems
- AI now better takes into account the Skill modifiers of the various Commanders (it makes a guess to enemy's skill levels)

- AI improvements for better moving/spreading out over multiple Islands. Touching on many aspects and fixing a lot of unwanted AI behavior. Still not fully there, but it is much better than before.
- Repaired the leader count used with Demands
- Fixed a crash with AI algorithm (concerning an empty Zone) (Elver)
- MTH Quarrels decisions now also impact relation with MTH *
- A new MTH leader will remember your previous support when he/she comes to power and that will give a boost to your relation (* sort of)
- Fixed some serious glitches (putting the level to high or always keeping it at 50) in relation (with MTH) effects of the MTH Decisions *
- Less expansionist MTHs now save up more Credits (instead of buying ships)
- MTH Buy IP Decision now really fixed (yes it actually was not) *
- Less big Lakes and more small Oceans in their place now *
- *=new scenario start necc
- Fixed a glitch with the location name showing in the selected Hex info sidebar of the Hex illustration if you did not have sufficient recon.
- Improved Strategic Movement hex mouse over info (next to landscape type illustration) to show whole trajectory possible even if to much weight points with Units, also coloring this info red if weight>logistical points. Minimal 1 Logistical Points needs to be present on Hex of Unit however.
- AI improvements and glitch fixes concerning choice of Formation Type
- AI improvements concerning moving forward in unopposed territory with slow moving Units
- Fixed the sometimes initially wrong page numbering of paginated tables in Reports.

- Fixed a possible crash with the Target SubTab in Stratagems Tab (Elias)
- Fixed special case Trade issue when certain Item completely depleted with a Trade Area
- Finetune to Trade where rounding to zero is replaced by random chance to go to zero
- Removed the display cap on Recon Points to 400 during Combat as higher values than 400 are actually necessary to have complete effectiveness against troops in a Hex that start combat with Cover Points.
- Fixed the poor AI still paying Colonists (not being placed) for founding New Zone (delivered without initial Colonists since quite a few versions)
- Fixed a setup glitch with Leader of Minor not having a title*
- Fixed the Advice window sometimes popping up upon loading game/new game when it is turned off
- Reverted a recent rendering optimization (because it was probably causing ghost Tabs with some beta testers)
- Cross Fertilization research cost diminished by factor of 10 (Thrake) *
- Converting Rail Station to HS without the Tech is no longer possible (Elver)
- Fixed a glitch with wrong effect of lowering Leader salaries (Emx77)
- Found glitch with negative gov production modifier being slightly to high (Emx77), but decided to keep it like this and update manual soon that gov modifier varies between +25 and 50

- Fixed last remaining issue with Stratagems showing “not valid” when initially opened (Christian)
- Improvements to Planet Generation concerning the dynamics between Mountains and Tectonic Plates leading to more varied maps
- Improved flora placement during Planet Generation better taking into account the temperature & rain
- Apologies. I have been a bit to hasty with 1.12g as it turns out.
- Fixed crash with Mini Map during Planet Generation
- Fixed crash with Stratagems
- Fixed issue with duplicate Stratagems not showing properly initially
- Fixed bug with Demands asking you to conquer a Sea Hex (xxzard)
- Fixed bug with table coloring persisting with other tables (Voker57)
- Fixed bug with MTH buying IP could be influenced (Voker57) *
- Adjusted AI to better take into account probable enemy opposition when choosing an Island for invading (will go for weaker ones first)
- Adjusted AI to assign less Units to Garrison duty (important to succeed with light weight invasions)
- Adjusted AI to not assign Units to a front overseas without actually being assigned to that Island for transport.
- Adjusted AI to deal with change in ideal landing X,Y and not sending troops back to original island
- Adjusted AI to go for more Troops (50% more) to take out Island defenders
- Adjusted AI to not switch invasion Hex due to getting confused about initial no Zone (before Makeshift Port constructed)
- Reduced the price modifier for shipping costs if MTH has (much) more offer than demand; still steep price rise, but less than before
- Stopped MTHs investing Credits in Trade Areas (landbased Traders)
- Fixed AI algorithm for MTH buying ships, was not doing this enough
- Fixed AI algorithm for paying dividends, was not doing this enough
- The above few points will make it easier to keep buying Transport Contracts without the price going up to much
- when MTH buys ships the Credits spent now reenter the monetary loop through Trade Areas bordering the MTH seas (weighted for pop+freefolk+worker).
- Fixed AI algorithms concerning selling goods not needed and shortage calculations on islands in relation to the need for Credits to buy Transport Contracts => should lead to more selling to Traders and thus more Credits for Major AI to purchase Transport Contracts and others.
- AI now taking into account if it is trying to transport heavy Units that need more Logistical Points (especially with amphibious invasions)
- AI now adapting size of Formations it raises to take into account their weight
- AI now thinking twice before sending artillery first during amphibious operations

- Fixed calculation of ships used by AI for execution contracts (and determining price point of new contracts)
- Fixed Skill Roll mouseovers (Cassini)
- Fixed glitch with Unit Supply where pickup point at same hex as SHQ still needed Logistical Points
- Fixed crash with turn processing (Karl)
- Concerning the UI Stratagem Tab : Diminished the data caching for the Stratagems from per category to per Stratagem. This should give a small speed decrease with a small Stratagem count, but a big speed increase with lots of Stratagems. (Cassini)
- Speeded up the drawing of the various minimaps (Strategic Map, Stratagem targets). Big improvement especially in big games.
- Major AI revised selling to Traders algorithm (was selling to little)
- Fixed a bug with multiSHQ AIs buying too much Food from Traders
- Population in an economic endstate situation (nothing to build) start spending excess Credits to buy Luxury Products with Traders (improving Happiness)
- Fixed some last Trade Report issues (showing too much qty's being reported and Trade Report on own Regime not showing stuff)
- Fixed skill roll mouse over for Regime Feat Skill Bonus and made more precise the mouse over for Regime Feat Stat Bonus effect on skill roll. (Cassini)
- Reduced the perround reduction of Skill Usage Points a bit if they are very low. (KeepStay)
- Transferring Items from Zone to SHQ (or other way around) when SHQ is on the Zone City Hex will be without logistical constraint now. Same if it concerns SHQ to SHQ where both are on the same Hex. (Elver)
- Fixed an issue that seriously limited trade with larger multizone Regimes, to the exclusion of trade between certain Regimes (Voker57)
- Improved trade algorithm concerning total volume passing from one side to another
- Improved trade algorithm and prioritize better deals over lesser (albeit good) deals
- Improved trade algorithm to not spend all its Credits trading with other Traders
- Improved trade algorithm to only start buying above a certain perceived price gain
- Improved trade algorithm by taking tariffs better into account to avoid making Trade Areas making dumb deals
- Improved trade algorithm concerning the CommerceBonus effects. These now play less of a role concerning misleading other Trade Areas (though can still influence perceived and real price with up to 25% if commerce bonus +200% versus area with no bonus at all), they now play a role in the actual price struck (between the buy price of trade house A and the sell price of trade house B). all being equal price = (buy price + sell price)/2… but if house A commerce bonus +100% then it results into price = (buy price*2 + sell price)/3. At bonus +200% then it results into price = (buy price*3 + sell price)/4… the reverse is of course also possible. This should give a nice boost to the usefulness of the Commerce Profile as it now should make your Traders more rich.
- Trade areas now only invest in other Trade Areas (credits transfer) if really low Credits there (in future still have to add some mechanic here to make it pay back for investing traders)

v1.12.01.05 – 22nd February 2023

Changelist for Oceania 1.12t (#154)

- Added 3 special Oceania Fate Cards: Change of Heart (1FP), Stock Emission (2FP), Maritime Breakup (3FP)
- Improved MTH Contracts Overview and made Transport Contract entries clickable.
- Once clicked you have the option to RENEW or CANCEL the Contract.
- Added Force Majeure rules for MTH canceling the Contract because of loss of Target Sea Zone.
- MTH visibility and 1 Recon Point on known Sea Hexes is now coherent with Partial FOW mode (and the other modes)
- Fixed a rare first turn crash due to MTH labels on map (previous subversion)
- Glacier islands now get different names
- Reduced the number of sea battles quite a lot, especially for less aggressive MTHs. This will give

you much more time to observe and react to changing MTH areas.
- Contract execution Ship shortages now calculated on the basis of ALL Contracts instead of just the current player's Contracts.
- Modifying Ship Shortage rule now for less Logistical Points used due to Inadequate Port Points on Contract
    - Port Points are now "consumed" based on the actual Logistical Points that are possible (due to limited Port Points on other side) for a Contract and not its optimal Logistical Points. The Ship shortage rule also takes into account how much actual Logistical Points are going to be used (and not the ideal)
- Fixed some glitches in the Logistical Points calculations for Transport Contract execution
- Some final fixes for FOW on MTHs and Partial FOW mode. You can now always see all MTHs in Partial FOW mode. It's more consistent that way.
- You get a Vidcom notification when a Transport Contract is about to expire. (and also if there is any Force Majeure event)
- Changed the Auction bidding algorithm so that everybody bids "blind", this is done to avoid the later bidders to have an advantage.
- Transport Contracts no longer work if you lose the Source Hex, but they don't get canceled automatically either (and loosing target hex is okay)
- The initializer messages are no longer shown in Reports.

Changelist for Core 1.12t (#154)
- Fixed grassy Mountains appearing in areas to cold or dry
- Fixed forested snow mountains sprite transitions with low snow mountains (masterfile update!!!)
- The new +50 DIFF for some Minor Regime Stratagems for Land Border in #153 was showing the wrong Preview Diff. Fixed now.
- Fixed bug where airforce was still like half active if you unflagged Airforce in Planet Settings
- Fixed air attack modifier for Forested Mountain Landscape Type. Is now 50%, just like regular Forest.

v1.12.01.04 – 20th February 2023

Changelist for Oceania 1.12s (#153)
- Expansionist Rating properly shown with Elder change message*
- Added MTH Icons + names on main map
- Reorganized the Planet Class selection window to support more Planets without much scrolling
- Added Planet Class: Artica, which is cold and has notable ice caps
- Added Planet Class: Tethys, which is hot and tends to be labyrinthine
- Added Planet Class: Hydroid, which is small but with liquid water
- Made it more easy to see Unit Weight at a glance when MTHs are active
- Your own Infuence Points are now displayed in MTH Report
- Showing Port Points for Destination + Source Hexes during Transport Contract negotiations now.
- Added some more Transport Destination Hexes when invading small Islands, or narrow SeaLand connections, to always have some choice where to invade
- Planets without using Oceania Feature (or without Seas) will no longer have access to MTH Liason Task and Port Asset Types *
- MTH Mauraders that you chase away will no longer drop troops (the one ship remark) *
- MTH Buy IP edge case fixed (MTH no longer had contact with Zone due to other events)
- Fixed issue with some delegated decisions concerning MTHs
- Fixed FOW with the MTH Overview Report (was showing MTHs you should not know yet)
- Fixed FOW with the individual MTH Reports (that were showing when they shouldn't)
- Not showing Temp, Rain, Scav for Sea Hexes anymore (in line with info disclosed in Strategic Map and hiding some unpolished planet gen calculations that could break immersion)
- MTHs now earn 100 Credits per Pirate Unit transported.
- History Classes Haven of Calm and Sever Violence impact MTH aggression rating, piracy attitude

and MTH Feat chance for Former Pirate and Maritime Imperialists
- Beginner Difficulty Level halves the prices for Contracts with MTH
- Extreme Difficulty Level increases those prices with +50%
- MTH Leader with low relation that's completely dissatisfied will leave instead of mounting a rebellion (MTH alliance related)
- Double checked but on Beginner the Metal deposit should always show up.. get me a planetgeneration autosave if this is not the case
- Offer Protection, Offer Client, Propose Peace, Unification, Annexation are now more difficult if you do NOT have a land border with the Regime the Stratagem is being played on.

Changelist for Oceania 1.12r (#152)
- Added the ability to sign an Alliance with an MTH (must have >50 relation and Transport Contract running with it). An Alliance will severely reduce prices, but… you'll need to take the MTHs Leaders on board in your Cabinet, SHQ and Zones. Their Leaders are maybe young and eager but not the best ones you could get elsewhere. However… this provides you with an escape if you cannot afford the Credits to use the MTHs services.
- Added MTH Feats. Each MTH now has one of 12 different MTH Feats to give it some more uniqueness and replaybility.
- The MTH Profiles were already linked to special Decisions, but they now all also have a "small" other effect.
- Everything has interesting mouse overs in the MTH Report (if you have at least 1 share in it)
- MTH now have a status between them, which can be War or Status Quo. It takes a low relation (and or a lot of aggression rating for an MTH to go to war with another MTH). The other side can also offer peace again. This will result in less MTH wars unless Major Regimes start influencing.
- Many fine tunings to MTH combat , dividends, shipbuilding algorithms, trade.
- There is much log to be read in the MTH report if you have at least 1 share in it.
- MTHs now have a Trade Policy towards Majors. Normally: Fair, but with lower relation can become Abuse or Stranglehold (increase of sell price, decrease of buy price)
- Implemented special trade rules for MTH (Greed Rating impacts prices, Trade Policy impacts prices, Port Points limits to absolutely qty traded, Reduced MTH<>MTH trading because difficult to transfer on the highsea)
- Fixed glitches with the Stratagem Minimap+Seas+FOW that was blending MTH into known but 0 recon land areas (David)
- Reduced chance for Pirate invasions a bit and limited the cumulative number of them (on lower difficulty levels), also giving the player an initial breather with Pirate chance being 0% on round 5 or lower and slowly ramping up to full chance towards round 15
- Quite some finetuning to AI Influence Point usage and Auction bidding, these effects are logged as well (as always 1 share needed to read the logbook of the MTH)
- Fixed initial MTH setup at game start where some splitoffs started with 0 inventory, or only 1 MTH would start on a map with really a lot of Sea Zones, no more!
- Fixed a glitch in scenario init of scripting that was 50% of the time blocking some stories from triggering

Changelist for Core 1.12r (#152)
- Fixed a rare glitch with Trade if very poor Traders had zero items of a specific Item to start with.
- Fixed some rounding error with Trade Item Inventory, that caused it to lose items of which it had very low stocks.
- Fixed the nonsplitting of Trade Areas once a Regime gets split in half (or similar).

Shadow Empire Oceania changelist for v1.12q2:
- Some more polish done to the new MTH Report. Sort of final state now. Though some extra specific statistics will be added in the upcoming weeks. Note that this Report has good mouse over support.
- Fixed crash with Airforce generated game upon start
- Fixed big glitch in MTH Dividend payments. Should be payed normally now and process logged

as well.
- Fixed two separate glitches in the AI algorithm that (often) caused it to not venture out to other islands (or just with 1 unit) due to recent adherence to MTH rules change for AI Majors. It was trying to target Islands that were not necc accessible by its MTHs. Major AI is now properly invading again!
- Plenty of finetunings done. Especially to the naval battle & shipbuilding algorithms. All considerations are logged as well now (but you need to be in comm and ideally shareholder)

Shadow Empire Oceania changelist for v1.12q:
- Big remake of the MTH Reports that now has a nice layout, some info graphics and even some tabs and more information available to browse (be a shareholder though to get all the info) (this new MTH report is not fully finished yet, especially trade needs to be fleshed out still)
- Fixed AI bug that caused it to very often not produce any Regular Troops anymore!
- Fixed that recurring recruit bug for good (got scrambled by the IP sales decision) *
- Fontus Class riverlake mess is really solved this time I think.
- Especially the Thalassa Class has no much more chance to have many separated islands (instead of very long ridges)
- Plenty of small fixes to MTH related calculations

Shadow Empire (core) changelist for v1.12q:
- Added completed Asset constructions to the Construction Overview Report
- Fixed glitch with autoreplacement swapping of robotic with regular forces equipment
- Fixed a Trade Reporting glitch with imports/exports (that did not match up)
- Fixed a bug with the spy calculations (got way too high the more spies there were! Big bug. Big thanks to GazBot & co)
- Between 1130 Zone Recon Points you start having 10 Hex Recon Points on Hexes of Zone, at 30 all Hexes will have 10 Recon Points”
- Between 31100 Zone Recon Points you start having 100 Hex Recon Points on Hexes of Zone, at 100 all Hexes will have 100 Recon Point
- Spies will be more prone to capture if they are more numerous, linear effect… will be hard to keep like 10 spies in a Zone now.
- Also remember there are some antiespionage ops going on. Having security in Zone, having traditional culture, having a Zone Gov with good Covert Ops Skill !
- Capped maximum Factions to 9 and gradual decrease of new Factions appearing once you already have a lot
- Improved Planet Generation tectonic plate placement leading to more interesting Planets
- Pull System fix for Assets Pull Points of Zones without their own Logistical Asset
- Pull System fix for SHQ being located on Zone City without own Logistical Asset
- Fixed exploit in Raise Troops with less than 50% (BlueTemplar)
- Dropped the transfer rule where 0 AP unit is not allowed to send transfers if it has not move/attacked.
- Reduced erosion effects a bit (except for geologically dead planets)
- Reworked some height algorithms, height now also displayed in black during generation (and white shows rain mm)
- Reworked rain effect on river formation (to hot planets had weird effect)
- Reworked river flow once more, result is even better

Shadow Empire (core) changelist for v1.12p3:
- Fixed a crash (Elver)

Shadow Empire (core) changelist for v1.12p2:
- Fixed some AI turn crashes (like LockBitmap) due to versight with previous subversions

Shadow Empire Oceania changelist for v1.12p:

- Added 9 MTH Decisions that correspond with Profiles. Each MTH has a specific Profile and a specific Decision subset. In practice this means your favorite MTH will drag you towards its favorite Profile, resisting will lead to relation degradation and other side effects.
- Added the base functionality for Minor Regime Pirates that can get MTH help to land on the shores of Majors. Effect should be quite light on easy diff, but more heavy on higher difficulty levels. You can also Influence the MTH on its Piracy Attitudes.
- Better MTH Decision quantity pacing (see recruitment decision issues on forums)
- Improved AI taking into account Victory Conditions better on Island maps*
- Sea Critters now properly retreat instead of surrender
- Sea Critters will perform much better when you attack them on the seas (higher hitpoints* + chance to turn KILLS into RETREATS)
- Fixed some MTH Decisions that were probably not showing up (consistently) due to a scripting error (it concerns: share buyback, offer share, MTH asks for more capital
- Fixed an issue with Sea Critters with aquatic movement entering land as well
- Fixed glitch with Beware Regime decision in influencing of MTH
- Fixed glitch with Zone creation around surrounded Asset (that was not a port!)
- Zones at City Level 0 (yes this can happen when reconquering ports) will automatically upgrade to City Level 1 once 1000 pop in Zone

Shadow Empire (core) changelist for v1.12p:

- Improved AI diminishing relations (especially on harder victory) when a certain player is getting closer to victory conditions *
- Improved AI diplomatics by allowing it to use “Provocation” Stratagems when in COLD mode. Sometimes it would want to go to war but could get stuck with a too high relation level. *
- For Proton users having crashes on startup since subversion N: The engine can now read the 2nd line of the direct2d.txt file, make sure the 2nd line says “false”. If this is the case some more advanced D2D functions will not be used. The cause of the bug was the fact that Proton could not use (some) “Direct2D Effects”. Especially the AtlasEffect I think. I am planning to expand on using those Direct2D Effects in the future, so this is something to monitor, and any info on what Effects exactly are supported and not supported by Proton/WINE would be welcome, since I am really a Windows man.
- Fixed some mouse overs of Tabs giving the wrong FShortkey in their description.
- Added Corporate Tax income to Treasury Report
- Fixed glitch where scientific coop could give you a groupName instead of an actual Tech
- Fixed another glitch with the Model calculations concerning vehicles that are immobile (due to engine weight ratio)
- Fixed a glitch in Planet Generation with some flora hexes on lifeless Planet *

Shadow Empire Oceania changelist for v1.12n:

- Fixed preview logistical mode individual assets in tandem with Oceania
- Fixed an AI CTD with an AI SHQ in a Zone without a City (EA)
- Sea Critters less often (semi) amphibic on lower difficulty modes *
- Fixed some AI SHQ spamming
- Tuned down Fontus Planet Class swampiness & lake spam a bit

Shadow Empire (core) changelist for v1.12n:

- Slight nudge to Logistical Pull System in some odd cases where traffic signs were wrongly preventing Pull Points being placed for Units (Battlemode Ben)
- Tidy up logic added for some Former Governor cases
- Fixed a skill reporting glitch during Combat
- Fixed issue where a Faction could sometimes be without a Leader (generating some glitchy decisions in some cases)
- Fixed crash with some Mods that removed Stratagems Event Pictures
- Fixed small Model Design issue with immobile equipment (like immobile assault guns/tanks)

- Fixed small Model Design issue with quad normal (notadv) MGs
- Fixed error in Annexation Stratagem logic *
- Fixed some change profile Faction Demands
- Fixed some missing Zone Names (said Unknown)
- Fixed some glitches with supply subtab when ammo + energy being delivered to Unit

Shadow Empire Oceania changelist for v1.12m:

- Fixed recon calculations on Zone and Regimes (for Stratagem play, where the Hexes where visible but player did not have minimal recon on Zone nor Regime)
- Fixed issue with double Auctions
- Fixed issue with history icons (air landing + amph landing)
- Fixed issue with AI doing amphibious landings on targets it was not at war with
- Fixed issue with Strategic Transfer not using the best naval connection
- Put fallback in place for unsupported Direct2D functionality (Wine issue)

Shadow Empire (core) changelist for v1.12m:

- Improved Asset Logs to also include the formula's for Bonuses, Tech improvements and Planetary Stats. Not very detailed, but at least the effects are logged and on top of that the raw formula has been made accessible through a mouse over.
- Further speed Improvements of the AI and Processing
- Fixed a major glitch with Air Bridge damage being set way to low
- Fixed a nasty coding issue that was miscalculating Strategic Transfers path finding if Air Bridges could be involved
- Fixed a last 1 mention in the Military Details Reports.
- Redid the layout of the Military Details Report to be more readable.

Shadow Empire Oceania changelist for v1.12k2:

- Tech test… The initial game cinematics have been D2D accelerated. Not impressive, but the fades between the images should be noticeably smoother. Please do let me know if this is the case or not. This is not the main goal of this change, as it is really mostly about testing this acceleration tech and if it causes any errors on any systems. If all works well I could use this approach to attack rendering bottlenecks in other parts of the game in the future.
- Speeded up the general engine drawing speed a bit (if not using DPI)
- ASAP Fixes of reported crashes (Michal, Greg, EA) (other issues will be addressed next week)

Shadow Empire Oceania changelist for v1.12k:

- Added the Aquatic Critters.* Some of them (semiamphibic) will be able to enter coastal land Hexes and some will even be even be able to go further inland (fullamphibic). They however can never enter mountainous hexes. (on the todo list is still to make them impact Logistical Points, especially if close to your Ports; and the ability to pay MTHs to hunt them; and their ability to sink MTH ships that are on shipping lanes close to them)
- MTH Contracts are now taken into account with Logistics Preview Mode + in the Contract Overview Report
- The Stratagem Explore Contract has been renamed Information Exchange Contract *
- The Stratagem Recon Contract has been added. The Recon Contracts are similar, but more expensive. They do an even better job on revealing Sea Hexes (2x better job versus at least 3x the cost). The Recon Contracts prime use is to gain better Recon on the coasts of the Sea Zone targeted. An Information Exchange Contract will get you 5 Recon Points on Coastal Hexes and 2 further inland. A Recon Contract will get your 20 recon Points on Coastal Hexes, than 5 further inland and then once again 2 further inland. On top of that any Port Hex will provide the MTH (and thus you) with a whopping 100 Recon Points, 20 further inland, 5 even further inland and then 2 even further further inland) *
- The Logistics Preview Mode also shows the Port Points that will be used (and so does the Current Logistics Points mode for those used at start of turn.
- Declare War Stratagem now seperate for Minor and Major Regimes to avoid confusion. Also

renamed them Minor War and Major War.*
- Fixed Fontus Class (and others) to not skip on Marine life is not using Water Solvent for its lifeforms *
- Fixed varying marriage proposal decision (Elver) *
- Also fixes the same issue for Advisor offered by MTH Decision *
- Fixed a small layout glitch in Help > Planetary Info
- Fixed garbled report over new MTH Elder *
- Fixed sometimes changing portrait of MTH Elder in topright of Decision
- Fixed faulty MTH Contracts Report (was showing enemy contracts)
- Reworked Minimum Recon, You now always have 1 Recon on Coastal Hexes if you know a Sea Hex next to it.
- Finetuned the AI valuation of different Island invasion possibilities (some AIs got stuck on small island with huge continent next to them)
- Finetuned the AI not assigning too much forces to invade/take small Islands
- Finetuned the AI not to skip on big core island still not conquered
- Minor War always available at easy/regular (Elver)
- All MTH Stratagems are now properly and only generated by the Economic Council (2 were generated elsewhere before felt confusing) *

Shadow Empire (core) changelist for v1.12k:
- Population buying Free Folk to join them now sends those Credits to the Traders (that organized and facilitated the Items necessary)
- Small but wrong mouse over for roll prediction thingy is fixed, based on report for Waste disposal Incident Decision, should also help with some other similar Decisions (kojusoki)
- Borders are back during Apocalypse Phase of Planet Generation (was disrupted during a recent beta patch)

Shadow Empire Oceania changelist for v1.12j:
- Very very probably fixed some doubled text in Vidcom (EA)
- Fixed some inconsistencies with Planet clicking in Planet choice setup screen (nsf). You can now always click the Planet as well as the button.
- Hiding shareholders from MTH Overview if you do not have the recon on those Majors yet (nsf)
- Black hexes will now show “Unknown” in Zone Tab (Elver)
- On especially easy+regular AI Expansion is a bit slower now (as it is not using Councils and Stratagem generation, I have to manually tune this a bit when it can play which Stratagem)
- Made some adjustments to the MTH behavior in buying ships when needed (they should now expand quicker to keep up with Demand (if they have the Credits))

Shadow Empire (core) changelist for v1.12j:
- Fixed an AI crash caused with 1.12i (Hagen)
- Fixed 1 titled report on Asset damage during combat (Elias)
- Fixed 1 entry in Military Details Reports, replaced by “battlegroups” (Elias)
- Strategic Transfer ensures at least 1 Recon Point on the target Hex. This preserves the effect of absent recon, but allows combat to be added to the history log if it occurs. (Elias)
- Increasing the Weight for Transport + Explore Contract to be generated as Stratagems
- Made some last adjustments to Traders investing in each other

Shadow Empire (core) changelist for v1.12i:
- Fixed a crash when you stopped history bar during AI play and kept it like that until AI fully executed
- Fixed a glitch where Minors without any Zone, but still with Units, could go completely inactive while you are fighting them
- Fixed issue with too high Recon Points with Heavy Tank and Tank Destroyer *
- Fixed glitch with vegetation appearing on Planets that should not have it (or not that level) *

- Upped the amount of Credits Traders will spent during trading with other Traders (was to tight and some of them were not buying enough)
- Introduced an extra rule to the price negotiation mechanism between Traders where much higher local asking price than selling local price will result in some serious discounts as the buying Traders know there is too much of a surplus with the sellers to start buying at their own internal market price. (Voker)
- Speeded up AI processing up like 1030% while in the Game Loop Window (not looking at moves while they come in)
- Speeded up AI processing concerning its economic calculations, could result in a final total speed improvement of 10%
- Improved the AI processing concerning its BP investments, could result in a final total speed improvement of 10%
- Improved the AI processing concerning the simplest of move matrices used and could result in a final total speed improvement of 10%
- Improved the core AI Front processing with some serious caching operations and could result in a final total speed improvement of 40%
- All together we might have halved processing time, at least for the fast AI, but similar results expected for the other AI speed settings.
- Improved AI's prediction of possible combat outcomes concerning the equipmentused weights (combat matrix related)
- AI now better taking into account the possible combat effects of armor vs gun mm matrix and the armor type vs weapon type matrix
- AI now better takes into account Profile Combat Bonus
- AI now better takes into account obvious effects of core Posture Stratagems
- AI now better takes into account the Skill modifiers of the various Commanders (it makes a guess to enemy's skill levels)

Shadow Empire Oceania changelist for v1.12h:

- AI improvements for better moving/spreading out over multiple Islands. Touching on many aspects and fixing a lot of unwanted AI behavior. Still not fully there, but it is much better than before.
- Repaired the leader count used with Demands
- Fixed a crash with AI algorithm (concerning an empty Zone) (Elver)
- MTH Quarrels decisions now also impact relation with MTH *
- A new MTH leader will remember your previous support when he/she comes to power and that will give a boost to your relation (* sort of)
- Fixed some serious glitches (putting the level to high or always keeping it at 50) in relation (with MTH) effects of the MTH Decisions *
- Less expansionist MTHs now save up more Credits (instead of buying ships)
- MTH Buy IP Decision now really fixed (yes it actually was not) *
- Less big Lakes and more small Oceans in their place now *

Shadow Empire (core) changelist for v1.12h:

- Fixed a glitch with the location name showing in the selected Hex info sidebar of the Hex illustration if you did not have sufficient recon.
- Improved Strategic Movement hex mouse over info (next to landscape type illustration) to show whole trajectory possible even if to much weight points with Units, also coloring this info red if weight>logistical points. Minimal 1 Logistical Points needs to be present on Hex of Unit however.
- AI improvements and glitch fixes concerning choice of Formation Type
- AI improvements concerning moving forward in unopposed territory with slow moving Units
- Fixed the sometimes initially wrong page numbering of paginated tables in Reports.
- Fixed a possible crash with the Target SubTab in Stratagems Tab (Elias)
- Fixed special case Trade issue when certain Item completely depleted with a Trade Area
- Finetune to Trade where rounding to zero is replaced by random chance to go to zero

- Removed the display cap on Recon Points to 400 during Combat as higher values than 400 are actually necessary to have complete effectiveness against troops in a Hex that start combat with Cover Points.
- Fixed the poor AI still paying Colonists (not being placed) for founding New Zone (delivered without initial Colonists since quite a few versions)
- Fixed a setup glitch with Leader of Minor not having a title*
- Fixed the Advice window sometimes popping up upon loading game/new game when it is turned off
- Reverted a recent rendering optimization (because it was probably causing ghost Tabs with some beta testers)
- Cross Fertilization research cost diminished by factor of 10 (Thrake) *
- Converting Rail Station to HS without the Tech is no longer possible (Elver)
- Fixed a glitch with wrong effect of lowering Leader salaries (Emx77)
- Found glitch with negative gov production modifier being slightly to high (Emx77), but decided to keep it like this and update manual soon that gov modifier varies between +25 and 50

Shadow Empire (core) changelist for v1.12g3:

- Fixed last remaining issue with Stratagems showing “not valid” when initially opened (Christian)
- Improvements to Planet Generation concerning the dynamics between Mountains and Tectonic Plates leading to more varied maps
- Improved flora placement during Planet Generation better taking into account the temperature & rain

Oceaniarelated changelist for v1.12g2:
Apologies. I have been a bit to hasty with 1.12g as it turns out.

- Fixed crash with Mini Map during Planet Generation
- Fixed crash with Stratagems
- Fixed issue with duplicate Stratagems not showing properly initially

Oceaniarelated changelist for v1.12g:

- Fixed bug with Demands asking you to conquer a Sea Hex (xxzard)
- Fixed bug with table coloring persisting with other tables (Voker57)
- Fixed bug with MTH buying IP could be influenced (Voker57) *
- Adjusted AI to better take into account probable enemy opposition when choosing an Island for invading (will go for weaker ones first)
- Adjusted AI to assign less Units to Garrison duty (important to succeed with light weight invasions)
- Adjusted AI to not assign Units to a front overseas without actually being assigned to that Island for transport.
- Adjusted AI to deal with change in ideal landing X,Y and not sending troops back to original island
- Adjusted AI to go for more Troops (50% more) to take out Island defenders
- Adjusted AI to not switch invasion Hex due to getting confused about initial no Zone (before Makeshift Port constructed)
- Reduced the price modifier for shipping costs if MTH has (much) more offer than demand; still steep price rise, but less than before
- Stopped MTHs investing Credits in Trade Areas (landbased Traders)
- Fixed AI algorithm for MTH buying ships, was not doing this enough
- Fixed AI algorithm for paying dividends, was not doing this enough
- The above few points will make it easier to keep buying Transport Contracts without the price going up to much
- when MTH buys ships the Credits spent now reenter the monetary loop through Trade Areas bordering the MTH seas (weighted for pop+freefolk+worker).
- Fixed AI algorithms concerning selling goods not needed and shortage calculations on islands in relation to the need for Credits to buy Transport Contracts => should lead to more selling to Traders and thus more Credits for Major AI to purchase Transport Contracts and others.

- AI now taking into account if it is trying to transport heavy Units that need more Logistical Points (especially with amphibious invasions)
- AI now adapting size of Formations it raises to take into account their weight
- AI now thinking twice before sending artillery first during amphibious operations
- Fixed calculation of ships used by AI for execution contracts (and determining price point of new contracts)

Shadow Empire (core) changelist for v1.12g:

- Fixed Skill Roll mouseovers (Cassini)
- Fixed glitch with Unit Supply where pickup point at same hex as SHQ still needed Logistical Points
- Fixed crash with turn processing (Karl)
- Concerning the UI Stratagem Tab : Diminished the data caching for the Stratagems from per category to per Stratagem. This should give a small speed decrease with a small Stratagem count, but a big speed increase with lots of Stratagems. (Cassini)
- Speeded up the drawing of the various minimaps (Strategic Map, Stratagem targets). Big improvement especially in big games.
- Major AI revised selling to Traders algorithm (was selling to little)
- Fixed a bug with multiSHQ AIs buying too much Food from Traders
- Population in an economic endstate situation (nothing to build) start spending excess Credits to buy Luxury Products with Traders (improving Happiness)
- Fixed some last Trade Report issues (showing too much qty's being reported and Trade Report on own Regime not showing stuff)

Shadow Empire (core) changelist for v1.12f:

- Fixed skill roll mouse over for Regime Feat Skill Bonus and made more precise the mouse over for Regime Feat Stat Bonus effect on skill roll. (Cassini)
- Reduced the perround reduction of Skill Usage Points a bit if they are very low. (KeepStay)
- Transferring Items from Zone to SHQ (or other way around) when SHQ is on the Zone City Hex will be without logistical constraint now. Same if it concerns SHQ to SHQ where both are on the same Hex. (Elver)
- Fixed an issue that seriously limited trade with larger multizone Regimes, to the exclusion of trade between certain Regimes (Voker57)
- Improved trade algorithm concerning total volume passing from one side to another
- Improved trade algorithm and prioritize better deals over lesser (albeit good) deals
- Improved trade algorithm to not spend all its Credits trading with other Traders
- Improved trade algorithm to only start buying above a certain perceived price gain
- Improved trade algorithm by taking tariffs better into account to avoid making Trade Areas making dumb deals
- Improved trade algorithm concerning the CommerceBonus effects. These now play less of a role concerning misleading other Trade Areas (though can still influence perceived and real price with up to 25% if commerce bonus +200% versus area with no bonus at all), they now play a role in the actual price struck (between the buy price of trade house A and the sell price of trade house B). all being equal price = (buy price + sell price)/2… but if house A commerce bonus +100% then it results into price = (buy price*2 + sell price)/3. At bonus +200% then it results into price = (buy price*3 + sell price)/4… the reverse is of course also possible. This should give a nice boost to the usefulness of the Commerce Profile as it now should make your Traders more rich.
- Trade areas now only invest in other Trade Areas (credits transfer) if really low Credits there (in future still have to add some mechanic here to make it pay back for investing traders)

v1.12.01.03 – 22nd November 2022

- Fixed some wrong color shadings and stock numbers in the shares table in the MTH overview report
- Reduced stock price of MTHs in most cases

- Added AI algorithms to use influencePoints also for turning MTH against other Major Regimes and/or MTHs.
- Fixed “error” popup bug and sea only Planet Generation bug (Sam)
- Fixed crash with AI on Planet with lot of Ocean but still all land connected (David)
- Increased mining hexes on Planets with little surface water
- Gaia Planets less likely to have Alien lifeforms, in any case probably less fearsome

Not Oceania specific:

- Fixed skill roll mouse over for Regime Feat Skill Bonus and made more precise the mouse over for Regime Feat Stat Bonus effect on skill roll. (Cassini)
- Reduced the perround reduction of Skill Usage Points a bit if they are very low. (KeepStay)
- Transferring Items from Zone to SHQ (or other way around) when SHQ is on the Zone City Hex will be without logistical constraint now. Same if it concerns SHQ to SHQ where both are on the same Hex. (Elver)
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- Trade areas now only invest in other Trade Areas (credits transfer) if really low Credits there (in future still have to add some mechanic here to make it pay back for investing traders)

v1.12.01.02 – 16th November 2022

- Fixed crash with Cults active + MTH Contracts
- Fixed issue with wrong Zone creation upon landing troops on hostile soil with Minor without City and just taking its temporary Zone center (internal thingy, dont ask please)
- Transport Contract to or from a Hex without a port will now give a 75% penalty (or more if rugged hex) instead of 90%.
- Makeshift Ports now cost 250 Credits
- Better explained Makeshift Ports on the Stratagem text, mouseover and preventing Stratagem play if nothing could be build
- Cleaned up UI Zone Tab when confronted with a Zone with 0 Populace (possible now)
- Port Points are now shown in Zone Tab (logistics sub tab)

v1.12.01 – 31st October 2022

- Glaciers on the Planet have a more realistic impact now… Glaciers have much less chance of housing Minor/Major Regimes, no resource Hexes, lower population levels during simulations, less alien wildlife / marauders and no Hex Perks. *
- Sea floor depth calculations much more realistic now (was always a bit on the shallow side)
- You can now transfer Items from SHQ to Zone Inventory or the reverse: from Zone Inventory to SHQ. Use the SHQ Transfer order to do so.

- You can now give the Governor of a Zone the order to supply Units in its Zone if they are missing supplies (not delivered by their SHQ for some reason). This takes place after Zone Production phase and before Zone Returns phase.
- Logistical System Pull Point algorithm has been revised to better function when there are less Logistical Points available than that are needed by Cities,Assets,Units. (it might also have become a tad slower lets keep an eye on this and any other possible complications!) It would be nice if anybody could try a new game with special attention to if the pull points of the logistics system are working well *
- Continued fixing the Posture Stratagems (was not fully done in 1.12b turned out). It should now really apply to all units immediately (or be removed from all units immediately).
- The change of the retreat % by a Stratagem is now immediate for all units (as well as when you remove the posture)
- The weird “no hitpoint attack penalty” for Recon in Force Stratagem has been replaced by “no attack penalty”. Textual upgrade requires restart*functional upgrade works on all versions immediately. This Stratagem now works as intended with the 20% retreat penalty working in tandem with the “no attack penalty” providing a powerful (surprise) attack, but one that gets canceled quickly if the going gets tough.
- Fix with renaming Formation Type button being disabled for non army/div
- Fixed S&S Editor again (crashed again for yet another Oceania related thingy, apologies!)
- Bio Fuel production now costs 50% more food.*
- Solar Panel Energy production decreased with 33%.*
- Volcanic Energy Plant production is increased, slightly at low levels, but increasingly more and more at higher levels.*
- Solar Panels production is variable based on solar irradiance of the Planet. Can result in upto 50% or more on cold Planets and upto +50% or more on really hot Planets.*
- Deepcore Gas Extraction production now up to 3 times higher if Planet has really thin crust (say Planets a bit younger than 2 billion years).*
- Methane Synthesis production now up to 3 times higher if Planet has lots of CH4 (say 1.5% or more).*
- Methane Synthesis Tech and Asset now have the correct condition (was linked to CO2 instead of CH4), minimum 250ppm CH4 in atmosphere needed. Things now correspond with Tech description and manual*
- Fixed some formulas concerning Methane in the planetary gasses simulations, its mostly based on decaying organic matter. The less oxygen in the atmosphere, the longer the life on Planet existed (the more natural gas will be released) and the colder it is (reduced microorg. reduction) the more CH4 will be found. *
- Fixed a rather big bug with only Militaristic cultures being chosen on planet generation (republicans and theocrats, etc are back!), even extended the language options used a bit as before for example Militaristic was indeed always germanic language, now it just tends to be ;) *
- Water bodies have more average temperatures and are now having a moderating effect on nearby land hex temperatures. *
- Made a series of algorithm fixes to Traders that were not buying enough at game start since several beta builds. (thx grogheads forums)
- Fixed some Planet Generation with cases of rivers not ending in lake/sea.
- Improved AI estimation of enemy strength based on enemies enemies as well.
- Finetuned Trader algorithms and private item sales and buys.
- Less cases of oversupply of private food/metal/oil to Traders by the Private Economy.
- Irregular demand from the Private Economy for higher tech level stuff at lower tech levels. The fact that nobody can make it, doesn’t mean they don’t want it. This might well see rising prices of high tech items in the early game.
- Overall increase of commerce between Trade Areas, but not for between major and major without Trade deal.
- Traders in lowpop Zones will try to construct higher stockpiles of goods that are selling well (being the middleman)
- Traders selling to other Traders now haggle better and will make more profits.

- Traders now also consume some Items to keep their operations running, initially just food, oil, metal and water but if Traders are inside a major regime with higher tech level other items might be consumed as well (like rare(4), machines(5), hitech(6), atomics(7)).
- When selling to Traders, Traders will not be inclined to spend all their Credits*
- Traders increase their shop qty if they see they are selling well, trying to supply their clients with higher qty's.
- One of the AI rules is that they are allowed much higher item stocks than human players; I countered this effect for the AI sales to the Traders weighing in very heavily their actual surplus production that round for their sales.
- Made some minor improvement and fixes to AI algorithm that is moving its forces
- You can now use the replace order to replace human infantry by robotic infantry (this is however not an equipment swap, but a full swap)
- Fixed crash with S&S Editor startup
- Now when you change Posture that changes retreat% it will be changed immediately
- Skill effect on combat is now properly previewed, its calculation method was feeble at best before
- Fixed big oversight with rename Formation Type introduced with 1.12. This is now fixed. You can only rename Custom Formation Types.
- Fixed bug with not being to play for example Plea of Friendship on a regime it should be possible on (probably will fix some other cards to with similar inexplicable not playable behavior)
- Fixed bug that prevented Replacing, Upgrading troops in Unit that was at same hex as SHQ but with 0 Logistical Points available
- Fixed bug with Commerce that was resetting from +++ to + due to rare bug in Corporate Story Module. Poof… that one was hard to find…
- Fixed display and calculation glitch with Supreme Command council repeating for each tasksuppart that more than 100BP is being invested.
- Fixed some beta game crashes (voker57) , related to badly seperated code for new DLC, sorry!
- *=needs to be a newly started game with this version or higher
- Fixed a crash during AI play experienced by all caused with first 1.12 version.
- Reworked rainfall algorithms in general *
- Nudged the rainfall algorithms resulting in slightly drier Planets *
- Added some windshade rules where mountains can block rainfall *
- Added some temperature difference rules on rainfall. As in cold air moving into a warmer area gives less rainfall and warm air moving into a cold area gives more rainfall. *
- Higher windspeed planets will have a lot more fuzziness to their rainfall than low windspeed planets *
- Relatively small lakes/seas have reduced impact on air vapor content * (tradeoff between simulation and game made, but result should be more realistic especially on planets with more water surface)
- AI: Reset OHQs (And independents without OHQ) properly to SHQs if AI territory gets split between several SHQs.
- AI: Fixed some important economic calculations in case of a split between several SHQs
- AI: Fixed a crash with at least one Decision on sending envoys to participate in a celebration (Max)
- Improver Trader behavior concerning buying items from Majors… they'll now offer to buy less of Items that are not really a good investment (Phyroks)
- AI: Fixed bugged judgment on recruits in some cases where there was a split between several SHQs
- AI: Improved flawed calculation when to buy replacement troops or not. We should see much more AI replacement troops arriving now. This might well be quite a big thing in AI effectiveness.
- Free Water for Zones is increased by multiplying the current riverlake gift (5.5.3.2) with the cube root of the number of hex sides . If highest rainfall hex *4 is higher that value is used (used to be average rainfall hex for zone).
- Free Water for Assets (open farm) now gets water for each Areal Hex with rainfall as well (but only a quarter of that received for the core Hex) *

- Finetuned the Vegetation algorithm which was rather often placing forests in hexes where rainfall was really too low for them, even allowing for microclimate conditions. *
- the Light Tank model has been slightly downtuned. It can now maximum use 50mm of armor (instead of 100mm previously).*
- You can now use the mousewheel to scroll the listbox(es) in the REPS tab, STRATAGEM tab, STRATEGIC MAP tab, OOB tab
- You can now rename the Formation Type of a Unit in the Formation Types Overview Report. It also gives you the experimental option “rename all” which will also attempt to also change the names of the Units already onmap belonging to that Formation Type.
- Removed “drawing type” from Model Management Tab in the Tech SubTab, it is an internal variable that does not need to be shown to player.
- Air combat fix: Thopter, helicopter and VTOL based in the Hex under air attack now actually join the air battle.
- Air combat fix: Doing strategic damage will now always cost ammo.
- Combat fix: Troops killed now lose their part of the supplies in the process
- Combat detail window fix: Some confusing reporting with “0%” modifiers has been removed
- Changed wording for a PBEM Cheat report. Since it could also just be someone playing from different PCs (or having done a reinstall of the game)
- Fixed a combat crash due to excessive number of units on defending hex (burnrate + solops)
- Fixed the faulty underlying AI decisions for creating that excessive number of units of the above error in the first place
- Increased hitpoints for ATGuns, especially if higher callibre guns (more and thicker armour plate) and on top of that doubled their hitpoints if attacked by noninfantry troop types (like tanks for example) due to their deployment mode, rapid counterfire and low profile. This should make ATGuns more interesting to use.
- Trucks/APCs will now be added to Custom OOBs when you are adding Flak Guns or Manpads (elver)
- Fixed some season name typo’s in 16 season planet setup *
- Nudged the amount of forced sale items the local Trade House will buy (phyroks)
- You can no longer add Reinforcement Types to a Custom OOB that have not yet seen a trooptype developed
- Fixed mouse for political bonus (phyroks)
- Fixed a crash with a decision on a Regime that no longer existed due to it joining another Major upon declaring war
- Fixed a few typo’s (christian / battlemode)
- Added player protection for playing Plea of Friendship on a Regime on which it will have no effect (like the Arachnids)
- Fixed the transfer limit of 3 individuals for the SHQs, you can now transfer the last 3 out as well.
- Fixed major AI bug with 1.11.07 ! Thanks for spotting guys! Apologies for this
- You can now freely switch Airforce flag on/off during Planet Generation (no longer blocked after restart and requireing you to quit the Planet Generation and press new game again)
- Added Unit Weight statistic in the first unit subtab. Could be useful for considering Strategic Movement (which requires 1 Logistical Point per Weight Point)
- Added the much requested Reroll button for the final Planet generation phase
- Added the text of the Stratagems to the mouseovers because in some rare cases there is too much text on the Stratagem.
- Fixed the number of trucks / APCs in the Heavy Motorized/Mechanized OOBs *
- Fixed a number of Decisions where the writer was referring to the title of the leader of another regime using your own title instead of theirs. *
- Really hope to have fixed a number of silent crashes caused with one of the last open beta’s; I cannot reproduce crashes anymore; but keep an eye out and keep me posted please!
- Because nonaligned regime is basically in reality “many regimes” your Regime Recon Points no longer result in getting extra Zone Recon Points (you’ll need to have actual spy in specific zone)
- Finetuned the Zone algorithm to avoid huge nonaligned Zones in some weird exception cases. *

- Finetuned the workings of the CommerceBonus that was not completely working as I intended and upped its usefulness quite bit for when you are selling to Traders. Commerce Bonus allows your Traders to outwit other Traders when trading with them, resulting in them buying cheap and selling high. Furthermore the higher your Commerce Bonus the lower their margin (the higher their buy price will be) when dealing with you.
- Fixed a glitch with OOB Customization where you were allowed to add reinforcement types not yet available*
- Sped up the reactivity of the multiple choice questions at game start
- Traders now capture some free water (rivers, rain, lakes), like you do, to augment their stocks. This should help avoid the Water price being too high. Your private economy does the same.
- The Traders pricing algorithm has been revised. They were trying to create stockpiles that were plainly too big. They are now trying to maintain more realistic stockpiles. New games will also reflect this in the startup qty's.
- Also the price point when selling to Traders is going to be lower than before if Traders already have enough stockpiles of the Item Type. Traders are now also putting a minimum price cap on really "cheap" items.
- Furthermore when determining the price to buy they make their current inventory count weigh more, especially if they have a lot.
- Overall the Traders will be a lot rougher with you and much less willing to buy Items from you that they cannot sell elsewhere. It will increase the game difficulty.
- Repaired some errors in Trade Reports that was showing false Imports/Exports statistics for your Traders (and Trade data of other regimes)
- Expect some rather serious price swings in ongoing open beta games (towards lower prices for some goods mostly), but this has to be tested, so sorry for any economic shocks.
- Ruins are now named after their old Colonial Zone/City name from before the Dissolution war*
- Some new regime names appear now and then as well, named after their old Colonial history*
- A little more regime name variety as well*
- Created mouse overs for the results of Stratagem play and Decisions if the return text contains the word "roll". If so the latest roll details (since execution) of friendly leaders are displayed in the mouse over. (this new addition will need some open beta testing as the number of scripts that might be executed are huge)
- Planets can now have even slower orbits around their star, leading to more seasons, of increasing severity (due to their length)
- Made some changes to the initial Management Screen settings for Leaders and Assets
- Increased maximum sea surface on Limos Planet Class a bit.
- Further improvements between rivers connecting lakes/seas among others by sometimes creating some flood planes between lakes/seas to allow them to connect.
- Rivers can now be much longer on some Planets, making them feel a bit more impressive and creating interesting maps.
- Fixed a small inconsistency between skill roll predict and final skill roll (relation modifier was added on top of total in preview, while i reality it just modifies the d100 which value will not surpass 100 or go below 1)
- Fixed a small inconsistency between skill roll and prediction where negative effect of 25 of secretary was often not completely taken into account.
- Fixed a (i think) recent discrepancy of qty of enemy troops between bottom interface and trooptype popup (when limited recon and qty guessing)
- Reworked the river systems. Lakes will often communicate water now, depending of course on if this is possible and no hills are blocking this. This gives more realistic and more interesting maps. There were some really weird maps before with for example big rivers ending in tiny lakes just a few hexes from a big ocean.
- Added mouse overs to the Skill Roll preview in Decisions Tab and Stratagems Tab (DasTactic insisting convinced me to improve things at least a little bit). It's the probable calculation at the moment and I think this addition will require some feedback / bug catching before i'll dare to call it "Skill Roll calculation details".
- Fixed some crashes (caused with 1.11.0x open beta earlier) with generating Planets (especially

those with big bodies of water).

- Militia Parade event is now randomly called (focus on start game though) *
- Profile change Demands made by Factions should be more rare, but also give you much more time to realize them (double the time at least).
- Tuned down a bit the number of Faction Demands in general, especially when you were refusing a Faction (pissing it off even more and making it more likely to demand more) it would come back a bit too quickly. Delay of renewed hassling now at least doubled.
- Resolved a hard to comprehend issue with oil seemingly disappearing from SHQ. However it was not a bug, it was oil sent out with SHQ tank autoreinforcements to units. I am now logging this kind of complementary item transfers to be included in the SHQ item bar mouseovers.
- Fixed Corporate Board Member Card, it is now giving the correct and immediate relation bonus 5d10*
- Fixed an issue with inter Tradehouse trade not being reported
- Doubled the PP cost for Disbanding an Asset (to make it cost you a bit more to use scorched earth policies
- The Election Report is now truncated for Zones and Military Units (as in the large empires there would be more text than paper available)
- Fixed a bug in story import at start of game causing the issue reported by emx77*
- Fixed some private construction without dirt road reported by Bavarian Kid
- Convert of Rail Stations level II and higher to HS Rail Stations now possible. Doing this costs you a level and will take 1 or more rounds of reconstruction activities. The Convert button can be found in the Assets Bottom Tab.*
- Improved AI behaviour in better defending cities
- Fixed a portrait graphics glitch with some uniforms
- Reduced usage of AI Siege Posture for OHQs low on artillery/infantry
- High Tech Level 1 production worker+energy cost slightly increased
- Fixed a few profile decision glitches in the diplomatic category
- Fixed issue where losing HQs and reforming them could screw up the numbering system of the HQs and could cause HQs to have more than their maximum units
- This open beta is also testing of changes for next major feature Oceans are not inadvertently screwing something up (nothing to see yet! its only testing of behind the hood stuff!)
- Fixed a crash during AI phase (Tortia Tertia)
- Attacking with your full OHQ (including HQ) no longer diminishes the concentric bonus
- Fixed crash during aiTurn (rivers)

v1.11.00 – 06th April 2022

- If AI has been collecting lower quality models after making replacements. This has been addressed and now its SHQ is going to directly deploy the unneeded ones (for repl.troops) in new units.
- AI is now only replacing troops now with newer models if XP is at least 40 as the whole idea in the first place was to retain the XP at the front (and sending the new troops to the older version equipment)
- Some minor AI algorithms concerning replacing troops revised.
- In some cases there will will now be less requests to hire a faction candidate.
- Fixed a crash during “flak front processing” message (starfry)
- Fixed occasions of faulty nato counters in history screen
- Reduced Flak production for AI some further.
- Fixed eternal loop in humanhuman PBEM game (mroll)
- Fixed small glitch with Battlegroup formation from SHQ
- Fixed issue with Strategic Movement caused in earlier v1.10.X open beta
- GPU accelerated ingame DPI scaling added which should speed up a lot playing the game with DPI scaling enabled.
- The DPI scaling done by the GPU is sharper than the previous DPI scaling done by the CPU.

- Sped up the scrolling speed by using shifting direct memory copies within the same map bitmap
- Sped up the scrolling and map clicking speed by not recalculating or redrawing the windows that are overlaid over the map and separating the underlying map drawing and the overdraw (making cacheing possible).
- Fixed bug with Advice window after end turn (Voker57 / thomas)
- Fixed bug with receiving a new leader with a regime profile above 100
- Finetuning Militia equipment improvement in games that last hundreds of rounds (hyveltush)
- AI work done on quality of tactical level movements.
- AI work done on reducing the tendency of giving ground in general.
- AI work done of making super aggressive regimes less likely to completely overextend
- AI work done on making the AI more likely to invest more in its current military than in its future military (by economic expansion) if threatened a lot.
- AI work done on making the AI wait a bit longer before constructing bigger units instead of more units.
- AI work done on reducing buying of Flak gun units/replacements at some points. And in general stop buying (much) replacements of troops we have less need of.
- AI stops playing some (often) stupid Stratagems on its OHQs
- AI improved OOB raising order (less chance to stay stuck in infantry formations only)
- AI improvements to moving to correct part of a frontArea
- AI improvements with entrenchment
- AI improvements with encircled troops
- Fixed an issue with Free Folk increasing way too much in some circumstances
- Fixed an issue with a savefile getting to large due to extremely large high node logistical network (game will prune some data now if its logs get too big)
- Fixed issue with Zone assignment upon rebel unit placement during turn (decision result)
- Fixed crash at start of turn calculations with trade (volker)
- Fixed an anomaly with the sliders on some systems
- Fixed an anomaly in the trade reports
- Fixed category of forced sales from private to public in the reporting
- Fixed an anomaly with scientific cooperation (not getting tech points from partner)
- Fixed rare crash during elections with a classbased voting system in place.
- You can now set import & export tariffs on the nonaligned regimes. Can be handy if you want certain items not to leave your Zones or to make a little extra buck!
- Fixed a rare issue with private asset doubling public asset that was delegated
- Fixed a bug with disappearing air units after artillery attack on them
- Fixed an interface glitchy state after asking research decision to a director in the case where no research fields were actually available.
- Fixed crash due to an misconfigured AI Regime SHQ inventory (Alex)
- Fixed glitch where you were not paying PP for Zone Merge
- Fixed ZOC ghosts in multiplayer game where one human player has resigned
- Truck/Rail/HS Rail Station higher levels now have reduced upkeep workers*
- Rail/HS Rail Station higher levels now have reduced construction round for higher levels*
- Truck/Rail/HS Rail Station higher levels now have increased truck/rail point production*
- Some cards like Eager Industrialist will no longer cause double Asset Type to appear when playing on a Zone where the lower level Asset Type in question is in construction.

v1.10.04 – 09th December 2021

- Fixed bug with “New org” while all organizations where already present.
- Fixed crash with MNG>ASSET tab in empire without any Zones left
- Fixed crash during watching AI moves (Veldarr) (caused with a recent open beta)
- Fixed UI issue (caused with a recent open beta)
- Fixed weird multiple sea & glacier/ice lines at south and north edge of map in some cases.
- Fixed crash with random planet creation (caused with earlier open beta)
- Not much else as I want to soon get a stable open beta to make it the new official version

- Fixed crash on changing research target (caused with earlier open beta)
- Fixed crash with first displaying map after load game (caused with earlier open beta)
- Now a mouse over for worker happiness decline due to their salaries being not fully paid
- Also the drop of worker happiness due to not being paid is less steep if the difference between real and promised pay is smaller
- Fixed a potential crash with selecting the message for setting the research target for an organization
- The lava lakes on the minimap are now coloured red *
- Now showing the Customization Points in the Empire Dashboard
- Some map scroll speed improvements (especially in later game up to 33% faster)
- Added option to hide some map aesthetical gfx details to speed up map scroll speed by about 33% extra
- Fixed a rare crash in trade details report
- Fixed a crash when clicking on unit details directly after clicking “1” / hide units
- Blitzkrieg posture mouse over text has been fixed to properly indicate it is 30% on defensive attacks (not 50%) *
- Ultralight aircraft description updated (no rockets + no missiles now properly stated) *
- If no major regimes (left) relevant stratagems will no longer be generated.
- Preventing some 1 entry in the
- Fixed name error “twin heavy mg cupola” to just “heavy mg cupola” *
- Personal shield no longer takes damage if attval < defval, upon final draining of the shield it is killed. But this draining should take way longer now.
- No longer losing artillery unit if attacking from a hex with more than maximum units (16)
- Air HQs now also count for a Factions’ power base calculations.
- Bunker no longer counts as a BP producing asset in the demand for more of those assets count
- Updated and fixed antiair values of MG, TwinMG and QuadMG *
- If you declare war on a human that has already surrendered this no longer wakes him up
- Fixed a rare crash (solops)
- Fixed a nonscrolling scroll bar in Management > Models Tab
- Traffic signs are removed now after you lose a hex with them on it
- You can now specify to do no research with the research target decision
- Mining techniques now under applied sciences org *
- No longer possible to build XenoAgri on a planet that got earth life introduced and without prior advanced alien life. *
- Fixed decision text for Zone Merger in cases with nonregime cultures in zones concerned
- Fixed crash with clicking “map” button in the combat setup popup window

v1.09.00 – 23rd April 2021

- Fixed crash with Regime statistics on Happiness and Hunger.
- Fixed glitch with Formation Type operationalization progress in reporting
- Fixed glitch with NATO mode counters and alien lifeforms
- Criticical Failure with Gift Stratagems no actually does lose you the Credits you offered. *
- Reduced the AVERAGE number of Alien Minors when Sentient Lifeforms are present.*
- Tactical nuke now consumes a bit more radioactives in combat in some cases due to fixing a rounding glitch *
- Rail, High Speed Rail and Trucks station Worker cost for production have been revised to favorise higher asset levels.*
- Fixed rounding error in ammunition consumption during combat
- Private economy thinks twice now before building open agriculture in a to cold/ to hot/to dry area
- Fixed the bug you couldn’t add infantry to a custom Formation Type
- Fixed glitch with flak range for 50mm flak gun *
- Changed the management window display of soft att, hard att to be premultiplied by number of attacks (for better comparability)
- Scrap cards can no longer be played upon nonfriendly zones.*

- Fixed a crash in a round 200+ game
- Assault Guns can now also use 200mm armour*
- AI might have been slowed down by accident in v1.08.04, I made sure 1.08.05 is compiled for optimal AI speed.
- Fixed issue with Friendship Pact and Victory Pact not triggering when a regime is attacked by another. It does from this subversion onward. In the rare cases where you have NonAgr/Friendship/Victory Pact with the aggressed as well as the aggressing side as well you will prefer to support the side that didn't provoke your dilemma.
- In the overview of other regimes report you can now see the details of their relations with other major regimes (basic info at recon 5, all info at recon 10)
- For card graphics modding: The following cards now each have their own .png file: Commercial Gift (523), Estate Gift (524), Bonus (544), Official Gift (545) *
- Fixed an AI issue where it was using Flak (or artillery) in regular attack (even unsupported).
- Fixed a glitch where you could still execute a Stratagem even if it should not be possible due to "no target selected".
- Fixed a problem with robotic infantry replacements not arriving during autoreplacement phase
- Nerfed the Emergency Tax card and it now strictly pays part of the private Credits imposed by you. It also gives more loyalty damage than before.*
- On game start airbases are no longer present if no initial air models are available to player (like on an airless moon for example)*
- When you craft a Stratagem you now are automatically moved out of Scrap Mode to avoid you scrap your new Stratagem by accident. (it happened even to my several times)
- Moons and Planetoids can no longer use Nemesis History Class (they are too small to always allow for the extra territory for the AI) *
- Faction Tech, Admin, Civ level demands now stop if you reach level 8. (impossible otherwise to give)
- Private economy will no longer build the same mine in the same Hex as where a public one was already present. This happened in rare cases involving delegation of public assets to another zone.
- You can no longer unselect "city state" in planet generation settings if it is the only option available.
- Nerfed the fuel/energy production cost of Truck Station, Rail Station and High Speed Rail Station. (it was getting more expensive after level 1 here, which was not the intention; fixed now) *
- Increased the movement cost for regular artillery and antitank gun models (without motorization), Militia version is still foot since they are very light and have improvised engines or traction systems *
- Upgrade and Downgrade Formation now also allows Individual Unit Formations to motorize or demotorize. (especially handy with the new increased artillery costs)
- Will now only get the Customization Decision from Staff Council (and no longer from Supreme Council)
- You can now properly ask your Staff Director to schedule the Customize Decision immediately (if you have the points). There was a glitch.
- You can now also choose to postpone the Decision for Customization when it pops up.
- Fixed the number of trucks/APCs to be added when adding nonmotorized to a motorized/mechanized Formation Type.
- Added customization of Formation Types task to the Staff Council (!)*
- Added some missing calcs from the Model Design Log
- Fixed some design calcs for equipment/troops without armour that got a random variation they shouldn't have been getting
- Private Economy now better looking at available Population when deciding to make a new Asset or Upgrading an Asset.
- Minor nudges to number of deposits for beginner level (and little bit to regular difficulty) *
- Some more hard to exploit rare and metal deposits if playing on regular difficulty or higher *.
- Gas Powered, Gauss and Charged Gauss all moved on Research Group upwards and will thus

be available earlier for research. *
- Militia can now be scrapped or mass scrapped (mass scrap will only affect those of the same culture)
- Fixed a rare AI processing crash
- Fixed you could nationalize an Asset in process of upgrade in the management screen
- Fixed glitch where rerolling on planet generation could cause nonalien cultures to trigger alien culture diplomatic events
- Fixed a rare weird crash during AI history play
- Added an asset prod log for Scavenging bonus with “Rich Scavenging Area” rule
- Manpower Rebate rule. Trucks / APCs and Recon Buggies return some manpower back to SHQ after their deployment from the factory (returning mechanics, logistics and factory teams). Defacto thus Trucks use only 20% of stated manpower, APCs and Recon Buggies 33%. (this rule also results in less manpower returned on disband and food consumption) (Militia does not profit from this rule as they are rather inefficient)
- Fear now also has a % chance equal to its score to give 2d10 extra pop happiness reduction points. (at autocracy 40+ this is reduced. At autocracy 60 this is half. At autocracy 80 its reduced to zero)
- Worker happiness is now maximized to 100(fear/2)
- Worker happiness also can be reduced by fear but only by 1d10 if the % materializes. Autocracy has same reducing effect.
- Danger happiness reductions can now be lower if heart profile 40+. At heart 60 the effect is halved and at 80 reduced to zero.
- Robotic forces no longer suffer RETREAT hits during combat (it will be either KILLED or PINNED)
- Robotic forces no longer suffer morale loss during the battles
- Updated autocracy & heart mouse over to reflect those new rules above.
- Gaspowered, gauss, charged gauss rifles/MGs/Twin Heavy MGs/Quad MGs have improved FIREPOWER. This does away with the huge FIREPOWER gap between lasers and the former. Also the mm penetration value of gauss/charged gauss has been increased with respectively +25% and +50%.
- Rare metal production of recycling/demetallization reduced with 33%. Rare metals prod in rare metals min reduced with 25%.
- Rare metal + Radioactive production of the Demetallization Facility now also modified for the Planets Heavy Elements score >100 is more <100 is less. (metal was already adjusted)
- Demetallization Facility IP + Machines construction costs is doubled
- Bit less rare + radioactive deposits created during Planet Generation (especially on >100 heavy element score Planets)
- Some Air Techs will not be discoverable if you are on a Planet with 50 or less mbar of air pressure (near vacuum or vacuum).
- The effect of combat skills: Operational Command, Strategic Command, Tank Tactics, Gun Tactics, Infantry Tactics, Defensive Tactics, Air Tactics, Air Intercept, Air Offensive, Air Ground Attack, Air AntiAir Tactics, Offensive Tactics have been reduced by Half ! I gave this a lot of thought but the Commander impact is just to big. Hence I am reducing it.
- Fixed the nonCity minor disappearing completely when losing its conquered(!) City.
- Power Plant worker need has been halved.*
- Fixed urgent reports which was showing third party characters (like the CEO).
- Added effective strength data to Cult report. (effective strength is adjusted for example for suppression)
- Alien lifeforms now also display their recon value in popup.*
- Alien native portrait that was missing for seasoned and veteran militia fixed.
- More chance to have breathable air on Hydra and Morgana Class Planet.
- Fixed crash in multiplayer game with Stratagem target selecting.

v1.08.01 – 22nd January 2021
- Fixed glitch in Alien Minor Report

- Reduced number of Asset Types eligible for usage in procedural Scrap Stratagems.
- Finetuned downwards the Charismatic Union Chief demands *
- Fixed that Open Contact could be played on Alien natives Minors. *
- Increased difficulty for making Alien natives join you a bit.*
- Fixed some glitches in the Militia growth algorithm.
- Fixed a turn processing crash (related to AI aircraft movement).
- Fixed an issue with Private Economy not seeing it was already producing enough Food. An optimization for speed didn't work out. Removing it for v1.08, will try again with subsequent open beta's.
- Added Hydra Class Planets, humid with plenty of swamps, rivers and seas. Almost always home to alien lifeforms.
- Added Morgana Class Planets, arid and dry, but with plenty of oasis areas dotted all over these planets.
- Added Minor Alien Regimes functionality for more variety. Native Aliens can now evolve during the Planet Biosphere phase, they'll impact colonization and the aftermath of the Dissolution war as well. 5 Different types are present (like Cephaloids, Reptiloids) and they can use local wildlife as 'cavalry' as well. They'll form their own Minor Regimes and a special kind of diplomacy will be allowed with the Xeno Diplomat Stratagem. They'll also can contact you themselves, like other Minors.
- Fixed new organisation PP cost glitch if continuing from loading a saved game.
- Fixed some glitches with the Corporate story module (fixed some crime impact on corporation as well as better corporate spreading to other zones)
- Fixed bug with credits disappearing due to having only one zone and it being a unincorporated one.
- University production now increases with education tech
- Barracks production now increases with security tech
- Fixed construction cost for High Speed Rail
- Fixed an issue with renamed Unit name not being properly displayed for the Commanders job.
- Went back to speededup build mode, .06 should be faster turn processing than .05/.04 and equal to .03.
- Fixed a small glitch in the QOL score calculations which could cause small temporary decreases in them.
- Fixed model issue with Techs Launcher Optimization and Payload for SAM Launcher
- Fixed model issue with Conventional Guns Optimization and Flak Gun
- Plugged an exploit with scroll bar movement not updating button
- AI should construct tanks with HV guns as well now
- AI now tries to keep movement of Reserve Fronts to their targets more on roads (in order to benefit from potential Strategic Transfer)
- AI now makes use of Strategic Transfers Mode (limited number of units allowed to do this)
- AI now actually plays any Artifact Stratagems it has obtained during game *
- AI now also more interested in constructing Recycling Assets on top of Archeological Finds *
- AI now creates new Zones when they reach a size where if it was subject to administrative strain it would suffer penalties. *
- AI now also rearranges its Zones.
- AI now has more difficulties in general to build roads and especially difficulties to build roads over mountains.
- Cards 31,32,104 now use 31.png, 32.png, 104.png instead of 1.png *
- Cards 546,547,548,549 now use newly added 546.png, 547,png, 548.png, 549.png *
- Added 8 new portrait part graphics (named groupXextrahair) for modders to have no double use between portrait groups. *
- Shared some help documentation for make graphics mod over on: https://docs.google.com/spreadsheets/d/1oDruMJbB6JBPvYaYIxeyCQMj5MWN46tjh6P4WOkN4s/edit?usp=sharing
- Fixed big crash bug caused with 1.07.04

- The glitch corrupted some data and could take a few turns to surface to turn into a bug. Corrupted savefiles due to 1.07.04 play are cleaned up as well.
- Added Very Slow AI speed and made regular Slow mode less slow. See Prefs Tab.
- Fixed bug with Zones losing their SHQs ! Apologies. It was caused in a previous open beta.
- Fixed the missing Stratagem generation info
- Scrap Strats no longer give “Market” Asset (which is an asset still in development and not meant to be given yet)
- Scrap Strats no also can give some Private Mining and Private Farming Assets
- Alien Fauna now makes sound in combat
- Switched back the compilation mode to the one used in 1.07.02 to see if it fixes some weird calculation errors or not.
- Double Artifact Stratagem fixed and also the amount of Artifacts you’ll find should be lower due to this fix.
- Several Private Assets including Private Hospital have had their way too high Population need reduced by factor of ten *
- Made some relatively good speed improvements to turn speed. However this also made me change some compilation settings and might give some unwanted bugs, didn’t find any, but lets see. Stay aware this is an open BETA. capitals for emphasis.
- Minors with whom you have “unclear” relation can no longer take your locations.
- Fixed a crash when player gets more than 300 stratagems in stock (caused with 1.07.02)
- Nomads when losing a conquered city now are NOT removed from game anymore
- Added possibility to scrap Stratagems and craft new Stratagems (spending Scrap Points) to the game. You can find all new functionality in the Stratagem Tab when you flag “Scrap Mode” in the topright corner. *
- Fixed propper average of attack and hitbonus skill % in Leader blocks in combat results window
- When tolerated equipment is switched for better equipment during replacement troops phase it keeps the soldiers (the xp, rdn, mor) where they are and only switches the equipment.
- MissileLauncher and RocketLauncher and other mechanized Launchers now use the Gun Tactics Skill (instead of Tank Tactics)
- Rail Stations now also profit from LogBonus *
- No longer very occasional n/a skill learning with Leader XP where Leader did not use any skill that turn
- Made fixes to the max logistical % settings for SHQ which were being overly optimistic (euphemism for not sticking to the limits)
- Fixed issue with Deception Skill being wrongly used in the combat mechanics.
- Fixed crash with older version savefiles and trying Strategic Transfer
- Automatic scrapping of most doubled Stratagems after you have more than 300 of them. To prevent too huge piles of Stratagems. *
- Fixed a nasty loss of Credits due to a bug to structural damage caused during battle code.

v1.07.01 – 07th January 2021

- No longer access to RPG Infantry Brigade in Tech 4 start (you’ll have to develop a Model + Formation first)
- Road construction at very long distance from SHQ now also possible (was a glitch)
- Reduced XP spending on Resist Influence, Endurance and some other Skills
- Added chance for learning a random skill, not often, but possible. Much more chance if no other skill qualifies for spending XP on.
- Added in some securities for AI to not go overboard with Airbase construction and not produce any aircraft models with to low range either.
- Upgrading and Replacing in same hex and SHQ should now always work, even if logistical points is at 0.
- Fixed a glitch where some Major Stratagems where presented as not accessible due to not the right Faction in Power (unless accessed by Regime Tab in the bottom). This is fixed now.
- Have been making fixes to the AI garrison algorithms, especially for Minors, which were still

leaving empty their City in some cases.

- A number of spelling and missing “00” corrections. *
- Fixed a calculation error in Dogfight Modifier during Air Combat.
- Fixed a crash with Management Tab if you had an Asset/Hex Perk at 0,0 hex.
- Fixed glitch with Mot/Mech Storm Grenadier Bat *
- Closed an exploit with Attract Free Folk Stratagem *
- Easier Logistics game variant now also doubles range of Supply Bases (the variant is more consistent like that)
- Fixed quite a major bug that caused “Maximum Storage” not to be transferred to SHQ in some circumstances, which led to some big Item losses in SHQ inventory.
- Made some nudges to Minor AI tactics (both for nonslow and slow AI mode)
- Fixed crash in combat window when doing combat with insane amount of enemy troops
- Fixed some Colonist/Recruits mouseover qty’s missing double zero behind 00
- Also fixed some wrong ratio in Replace Popup and Scrap and Upgrade Results
- Diminished HiTech costs for Beam and Plasma Guns *
- Fixed some typo’s and spelling errors *
- Unification and Annexation Stratagems are a bit more difficult in general now, but also a bit more variable in difficulty (based on the aggression of the target culture) *
- AI now disbands old equipment piling up in its SHQs.
- A major AI now has 40% chance to always try to keep Airforce in the Air (instead of switching fully to Flak Gun production) *
- Fixed a sort of “hanging” request for Scientific Cooperation by a regime you already refused or at this time are even at war with *
- I speeded up a noticeable interface delay when clicking units a lot in some Militia cases / Units direct under SHQ cases.
- Added protective code for the crash issue with the permissions/virus checker for Steam version MyDocuments access. If system does not support internal savedgames/ directory will now be used.
- Added the relation change logbook entries to the mouseover in the Leader Popup Window
- Added relation changes caused by Leader Feats to the relation change logbook of Leaders
- Fixed a nasty code bug which caused population happiness to malfunction.
- Fixed a glitch that caused Regime Overview Reports to disappear in rare cases
- Rule change: early Fate Stratagems will no longer disappear once you cross to respectively Tech Level 5+ or Culture Level 5+
- Added Max Size an Aircraft can transport through Air Bridge to its detailed popup.
- Added some mouseover improvements for using Strategic Transfer through Air Bridges
- Added some maparrow improvements for using Strategic Transfer through Air Bridges
- Fixed an Air Bridge calculation error were sometimes land connection got preferred. Should be fixed now. But keep an eye on it.
- Scrapping outside Zone was working well, but I have fixed the textual feedback to be a bit clearer.
- Prevented some map clicking when also clicking on a tab in the top
- Made a speed improvement to the slow AI that will hardly or not at all affect its quality of moves
- Beam Gun on Heavy Tank now rendered correctly *
- Veteran Sgt / Lt. will now longer trigger for Air Units *
- Added some protective code to avoid showing wrong DIFFiculty for Provocation Stratagem.
- Fixed an eternal loop "freeze" with Preview Points calcs
- Fixed crash with battlegroup transfers (finally!)
- Repaired the Roaming thieves decision, now targets private Food *
- Decreased Machinery cost for SAM Launchers *
- Fixed effect of Research Bonus on binary Tech advances
- Improved history flow with the battles now showing the original situation + combat results and only in the next step the afterbattle state.
- Air Bridge SFX during turn startup are now really gone
- Fixed Leader Suitability Rating for Airforce Council

- Explosion before Combat with Air Recon gone for good
- Fixed a crash/corruption with Air Bridge calculations when enemy intercept became possible
- Combat sounds with Air Bridge intercept now also muted as you are not seeing their results and they are calculated behind the scenes, so to speak.
- Fixed a glitch for Tactical Nuke weapon, description of tech fixed and can now be used with Automated Turret as well *
- Machinery treasures have less quantity now (was a bit over the top) *
- Moved 5 Linear Weapon Improvement Techs from Military Research Council to Applied Science Council *
- Treasure Hoard Stratagem, AI giving you discovery and other similar events/instances will now NOT give certain techs that will be of no use because you do not have the earlier techs or because planetary conditions are not met. Did a manual pass tech by tech and it should be done right this time. *
- Fixed older game starts played with 1.06.02 or higher that were getting weird skill growth due to the newly added personality modifiers on skill choice in 1.06.02.
- When establishing Air Bridges with the Air Bridge order they now limit you to the initial Air Bridge mission maximum range (which might be below optimal due to lack of AP or Rdn)
- A little bit more consequences from playing the Ask for Help Stratagem (to often). Also tuned down the amount of Credits you can ask for. (could be excessive in later game)*
- Fixed AI air unit relocation mechanism that was not using full range of its aircraft causing some to get stuck in airbasisolated areas.

v1.06.09 – 10th December 2020

- Design of Air Models… Hitpoints last formula part is now +25 instead of +1d50. Much more consistent with the rules like this.
- Added a “usertestmode.txt” file which is by default set to false, but can be set to true. This allows user access to toggle on modes that generate all Stratagems and start the game with all Techs and all Models. Great for the curious and the graphics modders.
- AI is now properly spreading its Flak out, instead of sometimes piling it all in the same piece of frontage
- Revised algorithm determining Armour & Weapon choices for tanks. AI should build more competitive models now.
- Also addressed an overbuilding of AA guns issue spotted by Das.
- Added a “nodrawnofocus.txt” file which is by default set to false, but can be set to true to see if we can tackle the crash with alttabbing / window minimizing.
- Reduced frame rate for intro cinematics.
- Improved AI production choices.
- Fixed the 4K+ first time automatic DPI 200% added with 1.06.07. It is working as intended now.
- Fixed an glitch that caused the Protectorate Stratagem difficulty to be way too high, and the Client Stratagem difficulty be too low.
- Fixed a crash during turn processing and AI moving. It was related to AI Air Units HQs algorithms. This patch will fix things.
- Suitability rating no longer takes into account the Relation or any oneoff bonuses created by Shadow Advisor/Spy

Technical/Engine

- Added protective code to try to prevent rare crash with minimizing the application crashing
- Forced the game application to use US culturelocale which will prevent some rare crashes with some system languages.
- First time someone with 4K resolution or higher without having any DPI or resolution overrule applied runs this version or higher it will put DPI to 200%. This is to provide new users with a larger font by default.

Gameplay and rules

- Added a flag to the Model Management Window to hide Obsolete Models
- Added a line of advice in Planet Overview in the HELP topic on Aircraft Engines.

- Amorphous Alien Fauna Feat mouse over improved to show that there is a chance the rule is in effect. *
- The Stats for Alien Fauna shown in the Popup are now the real values after direct impacting Fauna Feats have been considered. *
- Amorphous Alien Fauna Feat no longer used for Beginner games *
- Have reduced the base (before Fauna Feat) Hard Att/Def values for the Critters if they are relatively small (a 30 meter monster has enough kinetic force to not be impacted by this reduction) *
- Made some other fixes and adjustments as well to Alien Fauna Stat calcs, their offensive stats will be a bit higher than before and there will be much better correspondence between the auxiliary offensive and defensive scores during Planet Generation and the final Critters on the map. *
- Some very minor adjustments to some GR equipment*
- Dismissing a candidate for a job bug fixed. It was corrupting the data of who leads a Faction.
- Fixed a bug in the script interpretation with negative values at start of formula (fixing an issue with sometimes diplomacy difficulty being too high)
- Made some speed improvement to script interpreting
- Maximum Size is now considered for Strategic Transfers using Air Bridges *
- Maximum Size calculation has been adapted to take into account the size of the Cargo Space instead of the Size of the Aircraft. sqrt(average Cargo space / 1000) = Maximum Size. *
- Also Size is now set for Militia forces *
- Increased Weight for Air Models (no repercussions at all just aesthetics... for now..) *
- Added possible Protests by the Population against perceived too highIncome Tax, they will mostly trigger when you have high
- Income Tax versus low Government Profile. But other problems will make the population sensitive to high Income Tax as well.
- Up to 10% you should always be fine whatever happens. It is really meant as a counter balance to player raising Income Tax really high 40%,50%,60% without going all out on Government Profile. *

*=requires new game start with this version

v1.06.05 – 02nd December 2020

- The levels of Alien Critters could still go up to far. Capped them at lower difficulty levels. Max level 3 Feats at Beginner, Max level 4 Feats at Regular.
- Made some adjustments to the difficulty levels for playing various Minor Diplomacy Stratagems. It has become quite a bit harder to make Peace by Stratagem with Minors now.
- Added code to prevent a rare crash when clicking on a Troop type Illustration in the bottom for its detailed statistics popup
- Fixed some very imprecise mini map clicking as well as not centered minimap in the target subtab of the Stratagem Tab.
- Made Alien Life a bit less dangerous (and less reproductive) on the lower difficulty settings, especially Beginner. On regular difficulty it will only be slightly easier. *
- Nudged a detailed combat rule quite a lot: Counter attacks diminish in strength after having done more than twice the number of attacks the individual can do.
- The Alien Critters max attacked variable was misconfigured. Has been fixed. Expect better results combatting them even for running games. *
- Fixed a graphics glitch in 2nd+ page of defenders in combat results.
- Added extra protective code to prevent the Stratagem crash (was due to Units being destroyed and invalidating the memory of previous unit selection numbering).
- Fixed a small bug with Advanced Sensors that was not being applied correctly.*
- Fixed the aircraft engine efficiency techs not being applied to higher engine counts.*

v1.06.03 – 30th November 2020

Attention: In order to play the new Air Forces addition you'll need to flag "Air Forces enabled" in

the PLANET GENERATION setup page.

Full changelist

- Fixed issue with battle calcs for Amorphous and Trapper Alien Fauna Feats, which were not triggering.
- Population migration from one Zone to another now logarithmically capped starting lightly from 2.5% of emigration source zone population and limiting it to an extreme maximum of 15% (before Exposure rules taken into account, because those could lead to much higher emigration).. This to avoid too sudden and too extreme shifts in Population between Zones.
- I am diminishing the effect of the reward value of salaries for Workers, Leaders and Soldiers based on income tax & sales tax settings. In short if you have high income tax (and to some degree high sales tax as well) there will be less incentive for the Population to work for those Credits. Quite a big nudge and fixes a lack of punishment of excessive high income tax rates.. (requires game restart if not started game with a recent v1.05beta)
- Soldier salary effect is now compared with weighted pop and worker salaries instead of an average without taking their numbers into account. (requires game restart if not started game with a recent v1.05beta)
- I increased the difficulty of raising Income Tax and capped it at a maximum (but still whopping) 80%. *
- Added option in Prefs Tab (subtab called ‘game’) to switch on/off Slow AI moves during game
- Switched of some of the more fancy AI calculations if NOT using the slow AI
- Added some small general optimizations for AI Speed
- Fixed AI road spaghetti issues. The AI now cleans up a bit every 4 rounds. Don’t expect miracles, but the worst road nightmares will be fixed up. If you are running this beta in an existing game keep a sharp eye out if it is working as intended please.
- Added an “Easy Logistics” optional flag that doubles the Logistical Range and Points of your Assets. *
- XP spending on Skills is now much more varied and partly depending on the personality of the Leader *
- Payload optimization TECH now also has a positive impact on Bazooka firepower (and Armour Piercing Eff. already had) (and Manpad as well by the way!)*
- Recoded AI air production choices which was sticking with the original 1st version
- Fixed quality level settings for air for AI
- Helped AI with maximization of Items rules
- Fixed AI issue that caused it to not build SAM Launchers
- VTOL engines now has Turbojet Tech as a prereq *
- You now need the Turbojet Tech for its 4 engine variant (oversight fixed) *
- Small 10% improvement to AI speed (every effort helps, right?)
- Fixed dogfight bonus in combat calculations
- Fixed an issue with in some cases a piece of vital front being void of frontline for the AI calcs. Caused weird retreats in some circumstances. No longer!
- Fixed initial Air Models with Tech Level 4 start, they’ll have a bit more range now*
- AI will now first go for developing a bomber aircraft before switching to fighter/recon helicopters or thopters
- Added Motorized AT OOB*
- Added Mech AT OOB*
- Added Motorized Flak OOB*
- Added Motorized Manpad OOB*
- Added Mechanized Manpad OOB*
- The AI was still building mixed heli/thopter/airplane Units, should be stopped for good now.
- Solved a nasty screwup for the AI where it could run out of supply network due to huge Zones it can acquire
- Fixed a negative range issue with some helicopter configurations
- Did some long AI game tests (will do some more for day 1 patch)

- Spend a lot of time qualityassuring the formulas that make the Air Models to make sure they work as intended in the different air pressure & gravity combinations that are possible.
- Saying “negative!” to a nonviable design will now allow you to redesign it (with in yellow highlighted your previous choices)
- Adjusted maximum ground speed calculations by completely rewriting them and using a separate critical ground speed variable.
- Adjusted maximum range calculation to only to take a (now also smaller hit) if the atmosphere is in fact thicker than the gravity (added drag) to compensate for the much more efficient motors and lift in such an atmosphere.
- Engine Efficiency now has more impact on the force generated per fuel unit. It is also displayed now when you are making your design choices.
- Values in different Gravity/Air Pressure combinations seem reasonable now… But keep in mind that if Gravity > Air Pressure it is seriously limiting the range of Aircraft.
- Reworked the AI Flak Unit production and movement completely
- Flak is spread over Assets/Cities and Units according to a threat analysis
- The threat analysis can also impact the priority production of extra flak will get
- Flak units will now try to find an optimum between staying safe and also covering as many friendly units as possible.
- Gave the AI some slight troops production cost bonuses to help compensate for the added complexity with air and flak. But only getting pronounced on hard and higher.
- Fixed a alwayscrash during AI processing caused with beta16
- Nothing else, but I am halfway to reworking some AI Air and Flak placement algorithms
- Air Recon no longer starts with explosion
- When you now redesign an Aircraft Model (negative command at end) the previous choices you made will be indicated with a † symbol and highlighted in yellow to help you finetune your design.
- Adjusted the initial free model algorithms to even grant you initial air model (and unit) under difficult circumstances (like lower air pressure than gravity)
- Added an extra check to avoid UNCLEAR relation Minors to take Asset hexes from you
- Finetuned maximum distance in Air Model calculations better taking into account the double edged sword of air pressure… which one the hand makes the propeller/jet engines work better, but on the other hand gives more air resistance to movement. Leading to often some higher fuel consumption rates as well, which is a good thing for balance.
- Finetuned very low air pressure effects on Air Model calculations.
- Included some linear/logarithmic maximizers for some extreme conditions for the Air Models.
- Decreased the Firepower vs Ground for the various weaponry, except rockets
- Though the speed of sound is lower in lower air pressure i am allowing for higher critical speeds when the air pressure gets really low since the effect of passing any sound barrier in like 100mbar atmosphere will be much less violent.
- Improved description for various Air Model Types also showing their equipment level maximums and minimum airbase level.
- You only and exclusively need propellor tech now for ultralight model type discovery. This fixes something i broke in earlier beta. You’ll be able to discover air model types now with propellor tech researched. * (this requires a game restart however)
- Fixed the game setup “use Air Forces” flag. If not flagged it is now really NOT used. Before it caused a corrupted game to start without this flag. Big thanks to Bulldog for spotting the elephant bug in the room.
- Fixed a crash I just introduced with beta15 when watching map generation during setup.
- Removed the hiddenforplayer maximum range bonus of 25% on creation
- Maximized the maximum range of Aircraft to 40 Hexes using a semilogarithmic decrease algorithm after a range of about 12 Hexes.
- Improved the maximum speed calculation for new Air Model designs. *
- Improved the critical speed limit to make some differentiation for aerodynamics <50. *
- Removed some upkeep skill checks for Air Units
- Fixed Air Skills which now depend on War Stat (instead of Cha Stat) *

- Fixed a typo with propeller in tech types *
- You can now also call your Air Force Research Council to change its research
- Added Tech PreReq is the mouseovers of the Techs in the Management Tech Window. Was about time right?
- Aliens with Burrower Faua Feat have better defense against air attack now *
- High Altitude Air Models have lowered Recon Points
- Fixed issue with Air research when both Councils present and still a leftover air tech research project with the Military Research Council (you can keep it now)
- For Management Air Models overviews I Moved Air Combat Mods for Round1,2 to the Popup to make space for showing the Horsepower:Weight Ratio and if the design is in theory hypersonic and aerodynamic rating.
- You can no longer initiate an Air Bridge to a target Hex with inadequate Airbase Level
- Air Bridges without adequate Airbase Levels will not execute anymore
- Stopped Air OHQ emptying out troops if they have been classed as Obsolete, swapping for better with SHQ is allowed.
- New Air OHQ will no longer use obsolete quality troops (otherwise it will disband directly after)
- Added on map Airbase symbols
- Fixed crash with Leader OHQ Skills inspection in Reports
- Fixed issue with too often only maritime alien fauna present with Planet Generation
- New Alien Fauna behaviour Feats and their impact in movements now implemented *
- New Alien Fauna reproduction implemented *
- This concludes the new functionality for the Alien Fauna (except for fixes of course)
- HV Guns Tech now available at Tech Level 4 start *
- No longer Solitary + Social combi for Alien Fauna *
- No longer allowing to assign Air OHQ to another OHQ
- Fixed a crash with Missing HQ subtab
- Fixed a setup problem (caused in earlier beta) for PBEM games where initial armies where always maxed out
- Added Alien Fauna subspecies introduced for more diversity *
- Added Fauna Feats for more diverse combat and interaction *
- Fixed some graphic format issues for some Alien Fauna (there are 100s so some glitches snook in)
- In Raise Formation we have hidden Air Formations you do not yet have the Air Models for
- Can now develop your discover your first Air Model with something else than Propellor Engine (finding more advanced tech for example) *
- Added a visual green/red block and Airbase level for each aircraft subformation in a formation so you can quickly see if you have an issue.
- Fixed a crash related to Airbridge execution
- Airfield still in construction no longer enables that Airbase Level (next turn goes into effect)
- Blocked Decisions giving Unit Feats from triggering for Air Units
- No longer possible to Raise nonVTOL Aircraft Formations on Hexes with inadequate or no Airfield Level
- Fixed double log creation for Air Models for Model Design Log *
- Fixed issue with not allowing building Air Base in same Hex as Truck Station *
- AI got some improvements, but it also made it slower. So I added a flag that allows you to chose speed or better operational unit movement when setting up your planet *
- Fixed an issue with max ground speed that was sometimes to low and made it impossible to get a viable model designed (fixed for new models only)
- Fixed a crash due to faulty AI Air algorithm (round 30)
- Fixed missing SFX with some air attacks
- Fixed to low ammo usage in combat
- Increased ammo stockage with 50% for air units *
- Air Units should no longer get Unit Feats *
- Fixed an issue with Rocket Engine aircraft graphics (that were missing the frame graphic) *

- Once you have the Air Research Council present the Military Research Council will no longer try to Discover Air Techs (or allow you to research the discovered ones)
- Fixed spelling error with “ultalight” *
- Tech requirement for Heavy and Very Heavy Rocket Engines now enforced *
- Fixed bug in PBEM game with Godfather leaving and corrupting another leader stats
- Fixed a glitch in the effects on relations when shuffling budget
- Fixed spelling of propeller engine *
- Fixed a crash during turn processing related to Air Bridges
- Fixed some wrongly named graphic files for Alien Fauna *
- Fixed faulty description for Airbase Asset. *
- Tech Level 5 + Air Forces start now provides an initial Airbase Level 3. *
- Fixed calculation error with the attack values of aircraft designs versus ground targets (was too powerful) *
- Fixed a layout issue in Aircraft Design orders
- Fixed max ground speed preview during Aircraft Model Design
- Fixed the Air Force Research Council which was not working *
- Fixed a missing medium graphics for light aircraft model type *
- Fixed a big problem with Air and buying Replacement Troops (either at Unit or for SHQ).
- Fixed description for different Air Roles during Aircraft Model Design.
- Added Air Forces (Extra manual chapter PDF included) *
- Added much more varied Alien Fauna graphics *
- Some improvements made to the operational military AI
- Fixed SHQ not being charged of Items cost like Fuel when delivering Troops for new to be raised Formation
- Upon Declare War you lose Trade and Research deals and any embassy will close
- Fixed tohigh costs for Upgrades (more than predicted by the interface)
- PBEM game setup will now not ensure all players have the same size of starting armies.
- Fixed a bug introduced with beta8 that was causing Zones to be Lost/Gained due to Strategic Transfer
- Fixed max armour description and choice for med and heavy tank *
- Fixed a militia with not enough troops glitch (in later game)
- Fixed a glitch in the Trooptype popup for the Qty of partially hidden enemy troops
- Fixed a crash with Rebel Decision (probably due to latest beta versions)
- Fixed a newly caused crash with Model creation and inspection
- Fixed a crash during AI turn (due to combat modifier exceeding 30 different ones)
- Fixed some errors in the statistics in the Stats tab concerning Unit logistics (I think.. i think. if the issue still persists please send a savegame to vic@vrdesigns.net)
- Fixed a glitch where you could not transfer
- Fixed a bug in the casualties inflicted statistics (stats tab)
- Fate and Artifact Stratagems now also playable on Secretary *
- Provocation and some others should display correct difficulty when targeting a human played regime now
- Methane Synthesis plant now needs water as well *
- Fixed a crash with end turn
- Fixed the graphicsAlt directory feature
- Behind the scenes code changes for future features, just testing nothing goes haywire with these being present. Just stating this to be complete in these change lists. Don’t expect any issues.
- Fixed an error with mass upgrade caused with 105beta5
- Changing HQ of an OHQ causes 15% Readiness loss for all Units in the OHQ
- Changing HQ of an Independent Unit causes 30% Readiness loss.
- For modding: If the GraphicsAlt directory is present in the core directory (where .exe resides) and a graphic from the Graphics directory is also present in this GraphicsAlt directory it will be used instead of the original graphic. This allows using graphics mods without replacing artwork. Might

need some more testing. Why? Mostly needed for future of SE.

- Fixed a glitch with resolution change (or PBEM game where players have different resolutions) with the title bar in the topright moving to strange places.
- Vidcom artwork displayed at lower resolutions than HD is now scaled (unless it is used to render for example Stratagem Cards or Tech discoveries, etc..). Its nice for lower res users to see more of the graphical imagery.
- Fixed a bug with Resigning in 3+ PBEM game (added first in beta4b private build)
- Fixed mouseover for reassigning independent Unit from one OHQ to another.
- Fixed a glitch where an AI could research Techs in a Tech Group it had not mastered yet
- Fixed a bug that was caused with v1.05beta2 that was blocking replacement troops from arriving in many circumstances
- Fixed a bug with ageing not always working as intended
- Permanently fixed the false “0% close combat” combat detail mention that I said I fixed earlier
- Fixed a glitch with the Training Stratagem and XP growth
- Fixed an issue with edge case logistical points (just enough) and a resulting troops upgrade glitch
- Fixed a crash during turn processing related to a Zone that lost its City, but that still exists.
- Fixed a small glitch in % of Raise Formation
- Fixed a loophole where you could upgrade/replace/scrap Militia Troops
- Fixed listbox glitch in Asset Management Tab not sorting Zones for SHQ selected.
- Fixed a faulty Logistical Preview when switching between Assets in Preview Mode.
- Fixed a glitch in the Transfer (SHQ > SHQ) Order
- Updated No Retreat Posture text *
- Removed Indep Quad MG Formation Type, as normal MG Formation Type can be used for it. *
- Adjusted 3 militia events for their Militia Profile change *
- Major that is out of game will no longer show up in the Regimes Reports.
- Fixed a loophole with making Zones tiny to funnel Rebel Unit placement (they might be outside Zone now as well)
- Fixed Arachnid weak attacks due to nonintended calibre Matrix effects *
- Reforming a missing OHQ now will set its SHQ to the one that is used by its remaining Units
- Irrespective of SHQ used (determined by Zone where you are reforming missing Unit/OHQ) you can restore any OHQ / Unit.
- You can now also reform a missing OHQ as a “blank” container.
- Fixed a faulty application of the negative effect of No Retreat Stratagem in the first combat round.
- Fixed a bug with direct load of game and the miniMap bugging out if you had not first looked at an Asset graphic
- Fixed a wrong cost being charged (compared to shown) for (Mass) Upgrade of Troops.
- Scientific Pact can no longer give you Techs that you do not have the prereq for.
- Fixed the 15% Battlegroup attack penalty occurring in the wrong circumstances
- Fixed an issue where Seniority Points could drop below 0 for a Leader in the Reserve Pool, lowest points will now be 0.
- Fixed a Logistics glitch where the refocus count wasn’t always working as intended
- Fixed a Logistics glitch where after a number (of blocked or not) crossroads the Logistical Points would just stop advancing.
- When raising a missing Unit it is now also possible to raise it “blank” meaning without Troops inside it. This will allow the replacement troops to fill it up the next turn (or allow you to manually buy replacement troops)
- Fixed a combat log issue (calcs where fine) with (very) close combat mentions
- Fixed a log issue with the governor skill % bonus (which was overstated in the log)
- Fixed a crash during AI move (surprise combat for AI)
- Units with more than 4 logistics items and a logistical warning label will have layout issue fixed now
- Diminished the social environment conditions effect for Eternity Cult
- Take my candidate decision should occur less often (though it occurs more often with low relation factions, this is intentional, as they want something back from you)

- The faction request to go to war with unaligned will not happen anymore
- Increased initial Food for each Army you start the game with
- Increased initial Farms if many Armies at start of game
- Increased initial Farms if hightech level equips player with Biofuel Asset at start of game
- Logistical Extension production now visible in Asset Type Popup
- Fixed a crash in the history window
- Fixed number of Cult followers not decreasing when low % of followers and being persecuted
- Upgrade costs for equipment improved
- Fixed issue with SHQ Leader ending up in limbo when SHQ is disbanded
- Fixed issue with weird number with walkout decision with critical success roll
- Fixed abuse of SHQ Commander Trade Skill
- Fixed issue with Branching Rules not counting correctly (logistics)
- Fixed issue with 0 weight Items for Unit Supply costing Logistical Points.
- Replacement Troops will no longer be send to a Unit in a Hex where they'll not be able to move out off
- When a single Asset is selected it will show its range not necc. As it will finally be deployed as other Assets might serve certain Pull Points first (before this Asset will serve Pull Points). Or in other words the preview range of a certain Asset is shown as if this would be the only Asset to serve all Pull Points.
- Fuel transfer bug when transferring GR Troops from SHQ to Battlegroup fixed
- Extra insurance added that AI Majors asleep (no units, no zones) get their relations with minors reset to peace.
- Fixed an issue where your Fate Pack could have less than 4 Stratagems (due to doubles already present), this will no longer happen.
- Factions that are open to the Nonaggression, Mutual Defense and Victory Pact in theory are Corporatists, Realpolitikers, Doctrinists and Humanists. (before this was not the case with Victory Pact) *
- Losing your secretary due to Defection will no longer leave his/her slot open and will now longer result in a 1 1 statement, but a new secretary instead.
- Fixed a crash in a round 170 game related to a Leader Feat

v1.05.00 – 29th July 2020

Highlights

- Pull Points added to the Logistics System
- History Classes added to game Setup
- Updated Manual (rules & grammar)

Full changelist

- Mining Overview Report added *
- Archeology Overview Report added *
- Construction Overview Report added *
- Name labels for lakes and seas are back (they disappeared somewhere during the patches) *
- It is now possible to have a world where the survivors start with alien farming. But it should still be relatively rare. *
- Fixed selling Pop to Slaver to properly pay you. *
- Switched off Metrics as I have enough info gathered for now
- Fixed a bug with disappearing Assets (due to AI code containing a bug and deleting the wrong ones)
- Fixed issue with Asset Construction Dirt Road only going to closest Rail (without road). Will now be build all the way to the first road with Logistical Points
- No longer allowing you to build Wind Traps if rain scarcity is level 4 (no water at all in atmos)
- Fixed an issue with SHQ Troops disappearing if insufficient LIS points to Raise Formation
- Changing Quality Levels for OHQ in Model Management Tab will now also make all subordinate Units to that OHQ compliant to that setting.
- Suitability rating was still wrong in the bottom part of the UI for the Commander. (OHQ & SHQ

mixed up)

- Some textual fixes
- No longer possible to transfer zero weight items between SHQs if 0 Logistical Points on trajectory.
- Public Production Penalty applied to production that produces feeble quantity and thus suffers much larger penalty due to rounding up or down errors gets randomized chance if penalty is applied or not.
- Fixed a silent crash (no error message) with round 440 game
- Fixed a crash with beta9 related to the logistics calculations
- Slaver event and choosing declare war will now actually declare war *
- AI Regime Feats now go with the same rules as for the human player. Including the minimum number of rounds you'll have to wait before having a chance to get the Regime Feat.
- Games started with Beta10 will NO longer have the stopatnextLogistical Asset rule from Beta9. Instead of stopping the spread of their Logistical Points they'll be REFOCUSED at the next Logistical Asset. This Logistical Refocusing will diminish their Logistical Points but reset their APused to 0. Formula is refocused Logistical Points are diminished with currently used AP / maximum AP range and for the 1st refocus with a further 25% , for the second refocus with 50% and for the third and final refocus with 75%. This way there is less depleted runners on the map (good for pull) and it is still possible to have overlap (good for ease of play and realism).
- Pull Points algorithm now first considers the possible reach of your Logistical Assets before choosing trajectories from the Hex with the Pull Points to its SHQ (or Zone City in case of Assets).
- Fixed still buggy Asset Pull Points causing too high demands by faulty addition.
- Fixed an issue with Unit Pull Points as well.
- Lot of sweat and effort with plenty of pesky Logistical details to get it as good as possible
- In order to get the Logistics system more comprehensible I added a rule change. Once a runner from one logistical Assets encounters another logistical Asset it stops there. This is the only sane way to avoid the big majority (almost total) of the problem cases where a runner from a far away Asset would remove Pull Points that would cause a more nearby Asset to not use them. Furthermore it makes the network more comprehensible as there is less runners per hex in large networks now. * (requires new game start with beta9 for not to disrupt older games in progress)
- Units pick up supply as far downstream the Logistics network as possible now as long as pickup will still be at 100%
- Fixed a bug in the Preview mode when switching between Preview Asset and general Preview related to rail.
- Fixed QOL Bonus which was applied double the stated value
- Fixed a crash found in a round 400+ game
- Several smaller textual and typo fixes
- Fixed Raise Formation problems notably when SHQ Troops were involved.
- Fixed issue with Alien crops temperature rules, which was buggy especially with below zero temperature plant life. *
- Added an Alien Crops details report in the Help Subtab of the Reps Tab detailing its temperature tolerances. *
- Fixed bug where you could build another Asset of same kind in the same Hex as one that was delegated.
- Fixed a bug caused with v.104beta6 where using Violent history could cause human player to be set to an AI Culture Group. It breaks some events that place Units. *
- The combination of Siwa class + Alien Life History Class was causing bad atmospheres and high biohazard levels (DasTactics). Is fixed now.
- Fixed a glitch in the Pull Logistics with to much Pull Points being requested in some directions (caused by Asset Pull overdoing preserving existing points on trajectory)
- Fixed Spotters Unit Feat… It now actually will work only with artillery instead of only with infantry. *
- Fixed another disappearing sidebars issue when you pressed "No more orders" for a New Model Decision.
- No longer showing agricultural fields during Colonization Planet generation phase if Domed Farms

are used

- Added code to put back those Leaders not KIA with their HQ destruction in the Reserve Pool.
- AutoMG Formation now available without need for the Tech Robotic Infantry *
- Fixed a glitch with Faction having a shifting Profile
- Fixed still missing robotic infantry graphic (double check this time) *
- Fixed issue with Replacements not being returned to SHQ
- Should more often have Siwa class Planets with no RHL. (perfect atmosphere for humans)
- Logistics: No more branching increase if pull goes in single direction on a road fork.
- Rail and Truck Traffic Sign will not stop Logistics Points running towards Pull Points anymore. Pull Traffic Signs will.
- Fixed double food consumption glitch caused in beta6
- Fixed an issue with Logistics where auto Pull Points from Cities were higher (and correct) with Preview than in actual execution at start of turn.
- Fixed 0 hp with immobile models (autoMG / autoTurret) (requires making new Model to go in effect)
- Bazooka Model is available without RPG Tech now
- Fixed issue with “Haven of Peace” and Farmer regimes without Cities appearing.
- Big one. Added History Classes to Planet Generation to allow players some variants to regular Planet Generation. Many options to explore here.
- Model development costs no longer takes into account unfinished Models
- Opened up REPLACE troops in a SHQ as well now
- Repaired The Hero of the Nation Stratagem *
- Fixed Bureaucratic Bonus not being applied to BP production *
- Fixed a number of small glitches with Logistics
- Fixed effect of Accomplished Envoys, Martial Tournaments and Administrative Competence
- The Public Production penalty reverting to either 50% or 0% now is only used for Assets in construction.
- Fixed a graphic glitch with right bar reappearing when Tabs open in very low resolution screen (that should hide the right tab to make place for the Tab itself)
- Added a 75% DPI mode that simulates having a larger screen. Obviously at the cost of some render speed and graphic fidelity, but it might be useful to some low resolution screen players.
- Fixed a possible glitch in Raise Formation quality levels not initially selected
- Fixed some mouse overs there too
- In higher difficulty levels Minors do not have the AI combat bonus against a Major AI.
- Radiation symbols on map are now coloured. Green = RAD level 1 or 2. Yellow = RAD level 3 = Blue = RAD level 4, Pink = RAD Level 5 Light Red, RAD Level 6 Heavy Red = RAD level 7 or higher.
- Sealed Road construction over existing Dirt Road now only 60% of the cost.
- Rail next to existing Road or Road next to existing Rail only 50% of the cost.
- Stopped normal Minor Militia spawning on a Hex that they cannot move out off (was notably issue with Minors without city on high mountain planets) *
- Rare case, but still: Xeno Farming with plants with non Water solvent will not require water to farm now.
- Soil Demetalization Facility will now also produce some Radioactives Items.
- Also fixed Alien Plants ideal temperatures calculation if using a different solvent than water.
- The Pull trajectory to its source now only uses Traffic Signs that apply for pull.
- Hero of the Nation cannot be played again on same Leader
- Improved mouseovers for SHQ Inventory better showing if there would have been a shortage for delivery of Item to Units
- Fixed issues with the penalty on AP or combat if low on Fuel or Ammo
- Public Production Penalty % below 50% now gets a roll where the effect is upped to 50% penalty for an Asset if you roll 1d50 below or equal to the Production %, if you roll above 0% penalty is applied.
- Cycling Units no longer includes Units that maybe didn’t move or attack but which have 0 AP.

- Added WHY remarks to the Unit Supply subTab for Unit having less Supply than requested. Possible reasons that will be mentioned: PickupPoint to far away, Not enough LP on road between pickup point and SHQ, Not enough Items in SHQ inventory, SHQ Logistical point use limit reached.
- Added Color codes to the Unit Supply subTab button now shows the % of of requests that was delivered. White = 100%, Greenish >=75% , Yellow >= 50%, Blue=> 25%, Red < 25%. To give a quick signal that even though the Unit might have had 100% present of what it needed to consume there
- Fixed issue with Custom Pull Points not working if Automatic Points disabled
- Limit Production now also limits Asset auto Pull Points.
- Fixed issue with Auto Asset Pull Points not taking branching into account
- Added the option to distinguish between Additive Custom Pull Points and Overruling Pull Points.
- Added the option to set a Hexbased order if the Traffic Signs apply to Truck Logistics, Rail Logistics or Pull Points (or a combination)
- Fixed a glitch with the Suitability Rating for SHQ Commanders in the bottom part of the interface
- Fixed problem with Logistical Bonus not being applied to Asset Production
- Fixed a glitch with setting the age when rolling Leaders
- Should have improved rare issue where map wouldnt be able to scroll completely visible to the bottom
- Fixed intermittent crash with Mystic Priest in combat
- Reduced Corporate anticrime taking Credits from godfather a bit
- Made efficiency of anticrime ops from Corporate depended on the percentage of control they have over the private economy
- Fixed at least partially, but probably completely, the disappearing sidebars issue if click on a popup opening element in the Reports or Decision tab.
- Victory is now declared if you have more than 50 Victory Score and 2nd place has at least 25 Victory Score less than you. Is now in line with manual as well.
- With Raise Formation and using SHQ Troops the Popup is now showing ITEM% and TROOP% as the percentage of the total Formation you can raise, either by using preproduced SHQ Troops or by newly constructed (or a mix). This way you are not blocked raising a Formation if you have for example no Items but 50% of Troops already in SHQ.
- Board Member Stratagems can now also be played on the Director executing them *
- Upped Rain mm limit for receiving free Ice Mine on higher development levels
- Fixed a faulty mixup with a Corporate CEO “leaving you” which is not possible (but harmless glitch)
- Thanks for all the feedback.
- Wanted to make two points.
- First the system has not been simplified, just an extra tool to manage it has been added to the toolbox. If you want you can play the game exactly the same as before the Pull Points were added to the toolbox by just not using the “Pull Points tool”.
- Secondly I gave it a lot of thought and I concluded (for now) the Traffic lights system and the Pull Points should be interconnected and NOT be presented as two separate systems. This will lead to less confusion and Players can always choose to use only one or only the other or choose to mix them. I just feel it is more coherent like this.
- Traffic Signs now also affect the Pull Point trajectories
- Some other minor nerfs to Pull Points
- Trains now spread LP before Trucks
- Fixed glitch with to many Logistical Points being sent towards Pull Points (first bug that got reported)
- Asset Pull Points are now only applied to the trajectory if current Pull already applied is below what they need
- City Pull is now [previous turn pickup request] + [current predicted delivery to zone request]
- The event where you got Free Folk or Adventurers on a distant Hex will now be made less distant if possible. Remember it is always possible to refuse to take this choice. Also will try to avoid to

close ones. But it will not always be possible due to the randomness of the map.

- Made some small fixes to Dissolution War calculations to make the numbers add up better. However do not forget that over hundred of years many children are born as well, total casualties can be higher than the initial population. *
- Minors with a City now start with a Private Truck Station. Which will help you when taking over a Minor. *
- Fixed Item % (and Troop%) preview calculations in Raise Formation popups.
- Fixed coding present in some messages in the decision archive (from next round forward)
- Fixed a history map glitch after you conquered a Zone
- Fixed minimap in history map not working well (or with delay causing artifacts)
- Fixed some other minor map glitches in history mode as well
- Blocked clicking on enemy hex in the combat selection popup
- Fixed a 1 glitch in Treasure Found text
- Fixed glitch with Slave Trader not paying up *
- Mystic Priest Unit Feat fixed.. Will now have salvage effect with KILLS *
- Policy Speech, Faction Candidate and Faction Demand not clicking anything and ending turn is no longer possible *
- Fixed Storm Grenadier OOBs (they are Inf + Art + Pz) *
- Fixed a code showing in text issue for decisions with Unrest/Danger… *
- Increased randomness for Stratagems given by Factions
- Added Pull Point systems for the Logistics
- You need to start a new game with this beta2 to try them out (wanted to minimize risk to disrupt running games)
- By default automatic Asset, Unit and City Pull Points are used. You can however switch these automatic points off in the Traffic Signs Popup
- You can place Custom Pull Points on any Hex you like and they will be added to any automatic Pull Points
- Hexes with Pull Points trace a path to either their City (Assets) or to their SHQ (Units, Cities)
- These paths will favor roads without traffic signs leading to them (so for some edge cases you can discourage use of a certain road)
- When Logistic Points find a branch in the Road they'll first serve any Pull points that have been traced to their City/SHQ through that branch
- The Pull systems is logged and can be studied in the Logs of the Traffic Signs Popup
- On map in current LP view only the Custom Pull Points are shown in green.
- On map in history LP view the Pull Points used at start of turn calculations are shown in gray.
- On map in preview LP view the Pull Points as they'll probably be automatically placed + your Custom Pull Points are shown in pink.
- On top of the Hex total Pull Point info block is shown a small red bar if Asset Pull Points are present, green if Unit Pull Points are present and blue if City Pull Points are present and black if Custom Pull Points are present.
- The City Pull Points are based on previous turn delivery requests + pickup requests
- The Unit Pull Points are based on the weight in supply they'll request
- The Asset Pull Points are based on the minimal logistics points needed for them to operate without penalty
- You can also place a Custom Pull BLOCK on a Hex which nullifies any automatic requests of that Hex.
- This will require some fine tuning.
- Field Training Stratagem will now only be played if little enemies around.
- Added rules to not allow random event based gifting of Methane Synthesis, Deep Core Mining and Water Atmospheric Recomposition if the Planet does not have the right variables.
- Added protection code for Assets being placed without road connection at game start
- Fixed a Stratagem mouse over inconsistency on who's going to execute the Stratagem
- Fixed 3rd party Leaders founding new Factions and some other related minor glitches with those kind (and dead/left leaders)

- Changed the way Supply Bases are giving extension. They now only give extension points upto the point normal action points have already been used. This makes them function as actually intended. Will only be in effect with games started with v1.04beta1 *
- The calibre and weapon matrices were not being implemented as combat modifiers. Major oversight indeed. They will from this version on forward. Be careful when continuing with this beta as it might change the odds in your favor or disadvantage in especially mid to late game.
- Tuned the soldiers losses where they had the upper hand in eventbased fighting.
- In eventbased fighting with troops and security staff the Security Assets can now also lose levels.
- Hurting the Syndicate in a specific Zone by attacking them and causing them to be reduced to close to 0 crews will now mean their hidden bases have also been dismantled and it will cause a big cut in the capital of the syndicate. *
- Fixed mouse over. Algae vats do not profit from crossfertilization.*
- Fixed 0 key for Guard, if not yet pressed 8 or 9.
- Fixed some small glitches
- Fixed a bug where Food delivered by Militia to Zone inventory was reported as given, but where it actually was not being added
- Fixed a minor glitch where the Recruits + Colonists transferred from Zone to SHQ where being fed in Zone and after transfer in their SHQ as well. Now they will only be fed in SHQ.
- You can now pass to the 2nd Raise Formation window even if you do not have the PP available for raising the Formation (for inspection purposes)
- Major Regime without Zones or Units is now put to sleep (in future version I want rebels to be able to revive a Major Regime) and relations with Minors reset (so some blockages for minor diplomatics are removed concerning this major). Also it is removed from the S.MAP regime list if no hexes left on map and from TARGET STRATAGEM tab if asleep.
- And Majors without Zones will be removed from the Regimes Reports.*
- Added a cap to Incr Sales Tax, inc Income Tax, Incr Import Tariff, Incr Export Tariff stratagems. Max tax is 100%.
- Buggy maximum 50mm armour now *
- Increased Buggy size from 2 to 3 to make cost for armour go up a bit *
- “Loyal AI” no longer going to emergency hostility if getting close to losing the game
- No longer losing Stratagems in some cases with dip/spy stratagems where you lost the previous level of the stratagem and that caused a higher level to disappear.
- Natural relation point Job Prestige factor less depended on Ambition now

v1.04.00 – 26th June 2020

- Fixed the glitch where a Regime was getting like 10x the Rebel Unit per turn. Was caused by faulty duplicate regime records. Is fixed. And running games will be fixed as well (for future turns of course)
- Fixed a glitch with Red Hex Border Marker being shown in normal Map mode where you were attacked by nonaligned in the previous turn.
- Fixed glitch in Unit target selection in the Stratagem Tab where some people could not click the last item in the list.
- Fixed Upgrade/Downgrade bug concerning MG Infantry Brigade/Corps/Army *
- Multi Zone start has received plenty of extra checks to favorite the Zones being close. Having Zones without rail/road between them should be near impossible now. (and was already very rare)
- Fixed a glitch with BP above 100 in 1 task being capped in the wrong way. You can now effectively assign more than 100 BP to a single task.
- Fixed some glitches in the Org Task Progress Reports
- Tuned down the Resign exploit. Now costs 3PP to resign and the maximum relation gain is +1.
- The Ancient Archive Stratagem now can also give you Techs from the Tech Groups you do not yet have access to, but that have a connection with a Tech Group you do. More powerful again now after previous down tuned.
- Forced March Posture now only 10% readiness instead of 20%. *
- Fixed the graphic for forested mountain that did not colorize well with different vegetation colours

(due to color of sunlight and type of flora).

- Fixed the faulty divisional NATO counter with X symbol for one with XX symbol.
- Fixed processing turns crash due to Leader leaving a Cult
- Fixed some minor text glitches with 1 hex name for treasure and “” for job name.
- Fixed correct % display (or rounds feat still needs to be highest) for gain Regime Feat in Management Screen
- Fixed logging glitch on round 1 with Unit Food consumption
- Fixed a crash opening the OOB Tab
- Fixed nasty bug with cancellation of Model Design causing the next version to be based on a phantom Model (that was cancelled)
- Fixed a Model stat calculation bug that was not properly reading the actual Base Design value resulting in too low Armour, Weapon and Engine Design scores.
- Fixed the weird history bugs with Orange counters and some disappearing units (especially after just loading a game)
- Fixed Mountain % count in final Planetary Generation report (it was not counting grassy/forested and snowy mountain hexes)
- Fixed preview of Fuel use in Model Designer
- At Recon Level 5 on a Zone you now get to see its neighboring Zones (1 hex recon point on Zone’s border Hexes added)
- Road Demolition now also clears Traffic signs
- Fixed again the New Model calculations. It was working almost as intended but Engine/Weapon/Armour Design was not using an earlier higher score if it had a low roll. Fixed this now. *
- Secretary can now be paid a salary too
- Did some QA on the mouse overs of the Diplomatic Stratagems. *
- Fixed an issue with Regimes without Leaders and Units appearing. I think this appeared in v1.03beta1. Good we catch this before the patch goes public :) Should be working as intended again with this version. *
- Fixed issue with recon glitch on enemy City
- Fixed a rule that never properly worked: Other Regime’s Cities are not showing up with 1 Recon on Hex if they are within range 4 of your Hexes. This is because they block founding of new City/Zone within that distance.
- Fixed Archeology Stratagem *
- Fixed issue with Rebels getting victim to their own earlier rebel’s manpower still present in conquered Zone
- Fixed a minor glitch in the Colonization History. Low rain was causing excessively little natural Pop growth. *
- Fixed a rare crash with “Strat” button on Regime bottom pane.
- Fixed glitch with Task priority sliders not doing exactly what they were supposed to do.
- Sped up some start of turn calculations (notably players with high stratagem count where being slowed down)
- Cult membership should go back to max 100%
- Fixed governor keeping to many reserves for construction of asset that is already partly finished.
- Fixed the Soldier salary setting decision that I broke in beta 2.
- Fixed faulty presence of 2 Bureaucratic Offices (construct finished of course) in same City… delete lowest on game load.
- Also fixed cause of those 2 bureaucratic offices. If you now conquer as Command Bunker/HQ/Palace it will only become a bureaucratic office if none yet present or level is higher and in that latter case it will replace the bureaucratic office.
- Fixed bug caused by clicking on Hide Units and then clicking on a Subunit of a previously already selected Unit
- Fixed a glitch i caused yesterday with 103beta3 concerning the Stratagem speedup. It was to brutal and caused issues, seems especially in multiplayer games. Fixed now. Including for running games. This might lead to some Stratagem loss in some cases though.

- Fixed glitch with Skill Log report with Admin Roll for Supreme Command Council *
- Fixed glitch with execution of Archeology Stratagem
- Fixed maxstack preview in battle window to always being minimal 100
- Fixed a logging issue where Leader suffered two relation effects but only one was logged
- Fixed glitch with text in CEO asks for tax reduction
- Fixed issue with Stratagem Categories not being selectable if player had more than 1000 stratagems.
- Fixed a number of minor issues in layout, list sorting, spelling
- Fixed some extreme case layout issues in the combat select window (not perfect yet, but at least not overflowing)
- Fixed glitch where you could use Group Move to enter territory of other Regime without declaring war
- Fixed a miss calculation with AdminStrain with delegated Assets
- Profiled a bit the Logistics Calculations (but still more needs to be done here)
- Profiled a bit the Scripting Interpreting Calcs
- Did some other profiling to improve turn speed as well
- Fixed issue with Windows Form not using correct mouse location (if you play in Windowed mode please check I didn't actually break anything)
- Avoided crash in Windowed Mode if size of window and DPI would result in game below minimum screen size
- Fixed glitch with too high militia numbers (glitch occurred on higher difficulty settings mostly)
- Fixed broken "Supreme Leader Day" Stratagem. *
- Concerning Rail Logistics. The quickest route between two Rail capable Cities now takes into account All/100% Block Traffic Signs.
- Added "Unification" and "Annexation" Minor Dip Stratagems
- Fixed CAS for a Minor that joins you. It should start at 0.
- Fixed the mess caused in Stratagems (causing crashes) in v1.03beta3. You might lose some Stratagems or have some weird swaps due to this however, but it should allow you to continue game.
- Think I might have fixed for good (ehem..) the varying and semirandom history map glitches in the AI moves screen (orange units glitch)
- Think I fixed the weird results with the 89 keys and Units going to Guard mode without being told so. It was probably an integer overflow issue that is fixed now.
- Tuned down the Fuel Cost quite a bit for the heavier engines in big size models *
- Added in an AI loyalty to a high relation with another Regime. It is partly depended on victory score difference and a little randomness, but mostly on the Faction in power in the AI Regime. Expansionist, Corporate and Crusaders have low loyalty. Federalist, Realpolitik and Humanist have high loyalty. This should allow for some more enduring relations with major AIs. But never be sure of it of course! *
- Fixed scripting glitch (not sure if introduced with v1.03beta5 scripting profiling, but probably) with faulty calculations of Credits (and some other formulas)
- Fixed weighting errors in events with Major Regimes causing some that should have appeared less to appear more. *
- Tech Fields that are missing a prerequisite condition for discovery are no longer shown as discoverable in the Tech Management Window
- Fixed glitch with lowering / hiring Worker salaries. You are not advised to exploit here again.
- Fixed Model Type Tree in Management window correctly showing Walkers need Heavy Tank, and not Medium Tank
- You can now play nonaggression/friendship/victory pact on Human players as well *
- Major AI at war even if it does not want to be at odds with you will now start cancelling science and trade deals anyway (if those are still in place) *
- Effect of multiple Leader Feats on same Stat or Skill is now actually shown in the Char Popup.
- Fixed small textual glitch in Senator Extradite Decision *
- Fixed a faulty concentric attack bonus calculation when HQ itself was involved.

- Added a special soundtrack for the Planet Generation phase
- Replaced the 4th women voices who was too shrill sometimes. It hurt the ears so to speak.
- Number of fine tunings to decisions. Minor stuff. But needed a small fix here and there anyway. *
- Fixed glitch with 0 BP assigned to Task in Org
- Fixed nomenclature with a bonus, now called “Public Industrial Bonus” and applies only to Industry, Heavy Industry and HiTech Industry. *
- Public Prod Penalty now has a round of delay, so it is always used.
- Fixed Public Prod Penalty not writing with Cult effects
- Fixed a glitched Report due to temporary no secretary
- Now no longer Asset Construction on a Hex that got conquered the same turn (just like those are illegal for road construction)
- Fixed a lot of nonfully written out (user friendly) variables in mouseovers
- You can no longer build HS Rail Station and Rail Station in the same Hex *
- Fixed wrong graphic for HS Rail higher than level I *
- Secretary Skill Roll 25 now shown when playing Stratagems
- Fixed a glitch with some Diplomatic Decisions where 1 Profile change was not applied
- Made some modifications to the Planet Generation system to allow Planets with larger preDissolution War populations.
- Removed the faulty mouse overs caused with v1.03beta7
- Fixed an AI loop (caused by glitch in raise formation code)
- Fixed a glitch where having a minor as Protectorate or Client state did not actually switch the Clear Relation switch *
- Fixed a glitch where failing annexation would NOT lead to war*
- Fixed graphics glitch with Hex Selected with Zone border drawing.
- Fixed losing SHQ if you used it for attack
- Less often sending metrics on Decisions (getting to much records)
- Light Walker now uses Twin MG instead of Howitzer as a weapon type *
- SHQ Troops now properly taken into account for determining % of troops you can raise with Raise Formation order.
- You can now always get to the second window of Raise Formation, even if you don’t seem to have 50%. (maybe a different Model will have lower costs for example)
- Weird highlighted hexes fixed in Strategic/Stratagem mini map when playing with Partial FOW mode
- Some other glitches with Partial FOW mode fixed as well
- Fixed for good the Unit cycling issues
- Fixed glitch with disappearing Artifacts after turn of 0 production
- Fixed log glitches with Cults
- Reduced publicProdPenalty from Eternity Movement
- Fixed missing robotic infantry sprites (with Armour)
- Some minor tunings
- After the 4th branching (not counting the source) logistics “runners” will suffer AP penalties. (5th branch=10 ap, 6h = 40, 7th=90, 8th=160, etc...)
- Improved the speed of the Logistics calculations a lot.
- Rail Logistics => 5pts per Hex * (instead of 2)
- Truck Logistics on Sealed => 7pts per Hex * (instead of 5)
- Increased speed of Logistics calculations a lot
- Increased speed of opening Asset Tab in Management Screen quite a bit
- Annexation/Unification card can be only played once on a regime per turn now *
- Fixed wrong mouse over on Word with Policy speech
- Fixed Field Training Stratagem giving wrong penalty to infantry in attack *
- Medal of Merit can be played by Director on himself/herself.
- Move Type of Unit (as shown, there was now actual rule problem) now based on “Rocky” landscape and not on sanddunes. (go to next turn for fix to be affected)

- Fixed the sprite displayed on counters in some cases
- Fixed crash on clicking on nonexisting arti target hex and then clicking in the bottom interface
- Fixed a similar crash as with artillery with Strategic Transfer
- Fixed order of Zone Recon Points => Recon Points on Hex to an earlier point so that it is taken along in Demand resolution
- Light Mechanized Armour Assault Corps is back * (Army and Brigade were there, but not the Corps)
- Missing soldier graphic with Personal Shield is fixed *
- Multiple artifacts no longer the same ones
- Fixed a glitch where Infantry with Personal Shield would retreat if no nonshielded compatriots left (a rule that should only applies to Shield Generator)
- Administrative Strain will decline a bit faster
- Tuned down the effect of Thieves a bit. Also made all 3 decisions lead to Credits loss here (the nonintervention led to food loss). Also taking number of Zones in Regime into account in calculation now.
- Added protection for Draft Stratagems, now only usable at minimum 10point loyalty Zones.
- Hid some exposed variable changes when making decision concerning internal ai variables.
- Finetuned the old Militia General event
- Fixed branching count being off by 1
- Added branching count to logs
- Logistics Rail Points increased a little bit
- Logistics Trucks Points decreased quite a lot
- Level III Private Transport Hub Increased Truck Points
- Rail Points cost to 4 AP (was 5AP in beta10)
- No longer Demands for QOL levels above 100
- Fixed not completely fixed Hex Count for Demands
- Fixed glitch with not having PP to raise Formation
- Fixed minor textual glitch with nomenclature Public Industrial Bonus Points
- Fixed a minor 1 Lis Points textual glitch in Raise Formation
- Fixed a glitch if OHQ got destroyed/removed that needed Commander
- Improved AI Logistics speed
- Tuned the branching rule for Logistics to have less effect if Traffic Signs in place.
- Fixed harassed by Anima cult relation drops
- Fixed Hex Perk not giving 1PP
- Fixed limit to 80 of Pop Hap. Bonus not being enforced
- Minor glitch in minor strike return text fixed (inv)20% unrest instead of10%. *
- Support Faction and Ask for Help now can only be played once as well on any Major (per round)
- Delay for Militia to use your equipment was not properly taking the 30round delay into account. Is fixed.
- Militia units will no longer consider your Model motorbikes as infantry.
- Counter attacks limited in combat calculations
- Scavenge Points will now more easily go to zero in final exploitation phase
- Governors now only execute Zone Stratagems that were not generated by an Organization (Fate, Faction)
- Fixed some regime coloring issues/glitches in history view
- Weird centering of history view should be gone now
- Added security code to avoid the rare “Atlantis” issue (city in sea)
- Fixed Minors (that normally have a City) being removed after single City loss still survive in nonCity Zone. Now they only survive if they have a second Zone with a City, a Zoneless City does not count.
- Fixed wrong mining penalty textual issue for Mines on snow/ice hexes.

v1.03.00 – 12th June 2020

- Blocked AI from making double construction (for good now, v102beta2 didn’t quite do the job yet)

- Double checking if AI is making a valid construction choice added
- Double checking if Private Economy is making double construction
- (Farm/Mine) added
- AI will now take the hint if a Dip Stratagem didn't work on another AI and take a pause trying to improve relations*
- Overall the AI should be less schizophrenic (which it was in some cases) concerning what kind of relations it wants.*
- Reduced the ideal size of army and workforce for the AI in the mid to late game, but only on Beginner level. It was a bit too challenging now after all the AI improvements over the last month.
- Fixed a rare crash with opening the Management Window
- Added some protection code to prevent a rare crash with the Management Window
- Right click in cinematics no longer allowed. Fixes skipping through initial questions possibility
- Fixed disappearing Resource icon glitch on Hex after conquest (by Minor with no Zone).
- Finetuned the 9 "Call To X" Stratagems. Their effects are now maximized to avoid too big results in large AI Zones.*
- Fixed faulty Tech Level 4 + Initial Armies start concerning the Rocket Launcher unit which the game tried to give but was not available due to lack of the relevant Model. Is now an Independent Artillery that is given.
- Fixed glitch with buggy new Faction names ("1") also for running games
- Fixed possibility to go through rebel units with strategic transfer
- Fixed a logistics point cost glitch with Raise Formation and some others
- Fixed empty response on choosing "No change" when discussing the different Cults
- Added a protection for a weird crash in the Items tab (due to a Zone with no City)
- Private Construction (credits only) will no longer depend on LIS connection (production after construction will)
- Private Asset if still in connection with City, but no LIS, will only suffer half the lack of LIS penalty (Public Assets suffer full penalty)
- Mining Level had a glitch with production. Fixed. Expect some lower income in lower easeofminginglevel mines.
- Strategic Map no longer shows depleted Resource Hexes
- Strategic Map now differentiates between unexploited and exploited Resource Hexes
- Have been phasing out the usage of the term "LIS" and replaced it by "Logistical Points"
- Fixed that famous map displacement glitch (after combat)
- Fixed some very minor glitch in Logistics calculations
- In the Logistics layer Initial and Current Points parts of roads between 2 nodes that have lower Logistical Points than both nodes will be highlighted in yellow and points shown as well
- Blocked AI from making double builds (problem caused with v1.01betas)
- Fixed the actual cost of Railroad construction which was still on old high level and causing huge depletion of resources. (problem caused with v1.01betas)
- Fixed glitch with the maximum stack points not being increased with concentric attacks
- Fixed glitch with the "REPLACE / MASS REPLACE" button not being available
- Tracked a rare glitch with a Rebel Regime founding a new Minor Regime and its Units not being properly transferred potentially causing weird nonfriendly Units on your Hexes. Fixed now. Any such occasions remaining in your current game will be cleaned up by this patch as well.
- Corporate Taxes were actually being paid, but NOT being logged in the Corporate Report. Now they will show up there as well.
- Removed Obsolete Models from the Replacement Troops window
- Increased the cost of the Ancient Archive Fate Stratagem from 2 FP to 4 FP *
- Decreased the cost for the Chemical Team and Drone Team Fate Stratagems *
- Ancient Archive and other random Tech picks are now limited to Tech Groups you have access too. I am sorry some people liked this, but it was really more overpowered than intended.
- Propose Peace now possible from Relation 25 (was 35) *
- Returned ability of AI to give Credits but limited its repetition potential *
- Added the "Ouverture" Diplomatic Stratagem which you can use to increase Relation with power

you are at war with. Difficulty is easy when the Regime in question doesn't like to continue the war. *
- Fixed another AI crash
- Did extra QA work on AI Diplomatic Stratagem usage with Humans as well as other AIs*
- Fixed a crash during BG transfer in a very specific case (for good this time)
- Only Monitor Tank can use Tactical Nuke*

*=requires a new game start to go into effect

v1.02.00 – 8th June 2020

- Adjusted the interest of AI for building Hydroponics
- Fixed a less informative label on the unit counters after upgrade/downgrade Formation Type (Saros)
- AI improvements related to allocation of OHQs to Fronts
- AI improvements related to consistency of Front areas
- Fixed Model Statistics glitch that caused antiinf % and AT % to get switched around. (Saros)
- Zone now keeps less reserves if it is for an Asset that is on reduced production or construction percentage (Shards)
- Fixed glitch with partial construction % set and actual progress of that construction
- Fixed glitch with automatic worker recruitment and asset in partial production
- Fixes Sound Volume slider
- Severely tuned the Difficulty for Major Diplomatic Stratagems, though there remain some impossible rolls if the AI Major in question is just not willing at all to accept *
- Fixed a glitch in the application of the Skill Bonus by Leader Feats
- Fixed a glitch with failed rolls on raising or lowering taxes & tariffs *
- AI will no longer give you Credits while at war *
- When constructing roads to a Hex just one Hex away from the start it will always go as "the bird flies". In some rare cases this is useful.
- Unit movement now also goes as the "bird flies" if the distance is just 1 Hex. In some rare cases this is useful or even crucial to avoid likely surprise combat.
- Fixed a crash during a Compare Leader in the Leaders Popup
- Reduced the chance for a Decision to be communicated through Metrics by a factor of 10.
- Fixed 2 different rare crashes in the Stratagem Tab
- Made a minor fix in the usage of Commerce Bonus inside the inter Trade House trades.
- Fixed the inability to use Expel Diplomats to break final level of diplomatic contact level*.
- Increased initial Energy generation for Tech5 start *
- Fixed the Jetpack OOB/TOE *
- Increased speed for 200% DPI setting enormously
- You can now no longer nationalize a Private Asset that is just in the process of being upgraded
- Fixed an AI crash!! (Carson)
- Fixed a crash with transfer of troops from one battlegroup to another, fully emptying the first one (Saros)
- Fixed a glitch with the left side of the Staff Council task progress on operationalization of a new OOB was wrong
- Fixed a glitch with the renaming of Models (* in some cases)
- Fixed a bug with Minors building up to many Units and at the same time causing very long AI processing times (Che)
- Game now stops sound if you ALTF4 / endtask
- Reduced the militia growth for some minors from killing freefolk and pop, especially if they have units with low subunit count.
- Fixed glitch where a "nonCity" regime would surrender after losing a city they conquered (Slavers, nomads, etc...)
- Added a bit more Food for game starts with initial Armies present *
- Fixed a crash with Hex Perks on the 0,0 Hex
- "Recruit Talent" stratagem now actually ensure a younger Leader to be recruited *

- Fixed a crash during Combat setup with Ranged Fire
- Fixed a glitch with the Civilization Level dropping to zero
- Fixed faulty mouseovers concerning maximum storage transfers to SHQ on round 1
- Improved the Mouse Overs with a tolerance mode of 20 pixels so you do not have to keep the mouse perfectly still
- Added the generation of a planet generation save in your saved games directory. Which if you like you could rename and share with others. Or use to restart a Planet you found interesting.
- Fixed an AI “leader ageing” crash (BvG)
- Better garbage cleaning of some detailed log reports (data thing behind the hood)
- Fixed a crash with a start turn crash (Chris)
- Fixed crash with Artifact being generated in a Scav Asset that got upgraded to a higher level at the same time
- Fixed a crash with clicking on the Strat button in the bottom interface
- Increased free Water storage points with the amount of free Water (rivers/rain/sea) the Zone receives.
- Fixed issue with Electric Engine not being selectable for new Models designing
- Nonaligned forces (alien critters/marauders) do NOT take the first turn anymore.
- If nosaving during game + passwords enabled in a multiplayer game, you’ll get “possible” cheat messages if a player replays his/her turn.
- Autocombat setting in prefs now saves properly
- Fixed another AI crash with a tortured AI regime
- Lifted the 2player limit on the “Unclassified” Planet starts
- Improved historyview representation of friendly rebels attacking somewhere
- Improved history map by putting a selection graphic around the Hex where a history step is actually happening.
- Fixed a crash related to disappeared Trader Houses
- Fixed a crash related to the resolving of a faulty Demand on taking a Hex that did not exist. Also fixed such a demand being given in the first place.
- Some minor spelling and typo repairs
- Fixed overflow of attdef total list in combat setup popup
- Reduced the extremity of the costs for Rail through difficult landscapes (except high mountains). Stays high, but at least it is possible to construct now if you save up.

v1.01.01 – 4th June 2020

- Initial Release