

Eastern Sun Resurrected 3.12

Bug Fixes

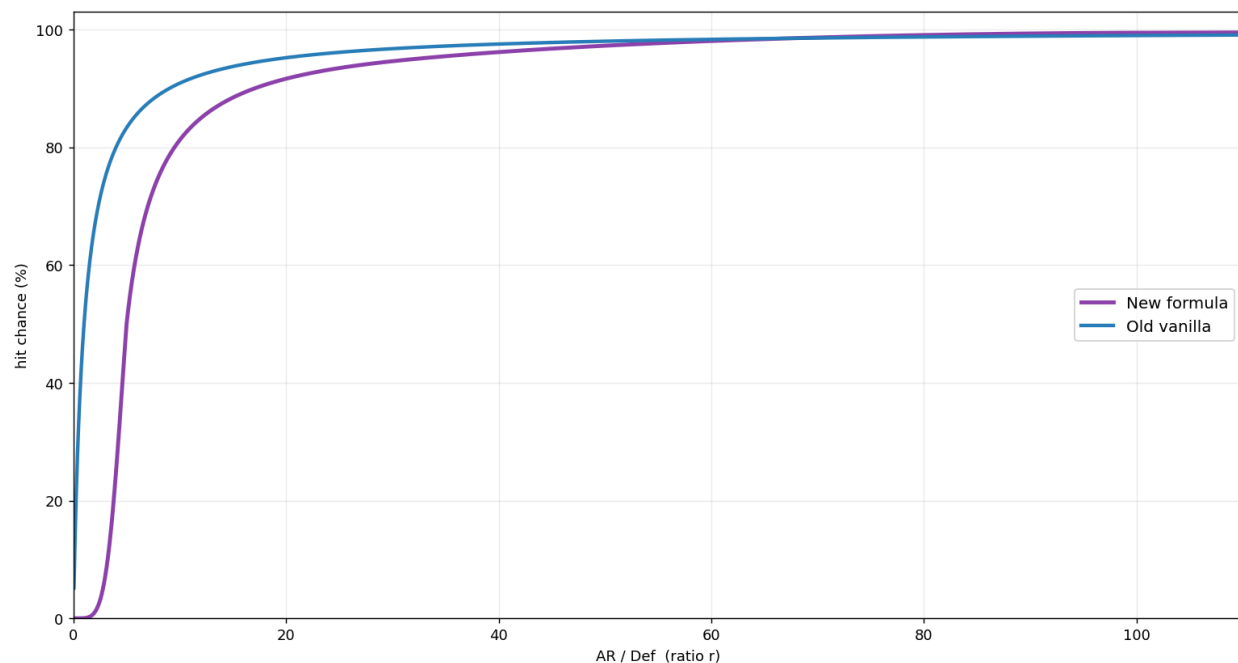
- Fixed a bug where holy shield bonus damage to smite was not displaying properly (this works through a memory override).
- Starting Noob Odd Charm no longer spawns with negative regen.
- Fixed a bug with Leap Attack special synergies not applying unless they were both met.
- Fixed a bug where Amazon's elemental arrows were benefitting from any weapon mastery.
- Corrected a few skill descriptions.
- Fixed a bug where smashing ore would sometimes result in nothing.
- Fixed weapon mastery not being applicable to celestial blades.
- Fixed magic spell damage not applying to magic damage to attacks (again).
- Fixed a bug where enhanced damage total would cap to 4096% across all items.
- Fixed a bug where Doomfletch's Prism was converting only 12.5% of the physical damage (and added deadly strike scaling).
- Fixed a bug where aegis of corruption was not applying to hydra when weapon mastery was active.
- Fixed a bug where Radament's Sphere coupons would never drop.
- Fixed a bug where the meld cap was not working (20 melds for weapons, 10 for armor).
- Removed quivers from elzix inventory in order to fix a bug where they would spawn as duplicates in the gambling window.
- Replaced %ed merc only craft with something else to avoid an engine bug.
- Perfect Obsidians can now drop (there was a bug where Blemished would drop instead of perfect).

Memory Overrides

- **Extremely important - restart your d2rlan and restart the game twice for the following changes to take effect - just to be sure.**
- **If your game crashes at any point suddenly, please delete your HUDConfig_EasternSunLAN.json file and restart the game twice before reporting the bug.**
- **Implemented a few very experimental changes that are meant to fix damage overflow everywhere.** This includes magic damage, elemental damage, damage from weapon damage skills, smite, traps, **ALL MISSILES** etc. If you feel like your damage behaves weirdly (it's too high or too low) or if damage goes to negative numbers when it should not, please report it as a bug.
Note: There might still be routines that overflow which I missed. Please report if your damage overflow in any other case.

- Applied some new memory overrides that modify how Smite and Charge work, more info in the Paladin section.
- Applied a new memory override that prevents experience loss in endgame maps boss levels.
- Applied a new memory override that allows items to have multiple auras active at once. As a consequence, the **Character Augmenter has been removed and existing augments require level 130 (are no longer usable)**. To gain the character augmenter functionality back, simply transmute the Kill Ledger with itself.
- Applied a new memory override that allows fire/cold/lightning/poison mastery to apply to elemental/poison damage to attacks for ranged attacks (including all missiles). Previously, the damage showed properly on LCS, but the elemental masteries ("spell damage") did not in fact apply to elemental damage to attacks because this was engine functionality.
- Added a new memory override meant to fix the client/server desync happening on death that keeps your character alive and stuck in place, forcing you to save and exit.
- Added a new memory override that fixes certain states from being cleared on performing a finisher (e.g. sorceress exclusives).
- Added a new memory override to prevent veteran/noob odd charms from being stackable (similar mechanism that works for unique charms).
- Added a new memory override that caps dodge to 75%.
- Added a new memory override that allows resistances to go below -100%, up to -1000%.
- Added a new memory override that fixed an old exploit where you could resocket certain runes for infinite bonuses.
- Added a new memory override that fixes the display damage for smite when grief type damage bonuses affected it (e.g. +400 Damage).
- Added a new memory override that completely removes the fleeing when surrounded routine for most summons in the game.
- Added a new memory override that allows me to implement "cast on cast" modifiers. Some new items will have this modifier. Note: This proc is not recursive (a procced skill cannot proc itself again).
- Added a couple of new memory overrides that fix procs for certain skills not working properly.
- Added a new memory override that allows items to be cloned. And a new legendary consumable for this.
- Added a new override that fixes certain procs from completely breaking whirlwind for the rest of the game session (e.g. corpse explosion).

- Added a new override that allows whirlwind to be used with bows and crossbows (for Moonlight runeword rework).
- Added a new memory override that makes pets deal reduced damage against prime evils, matching the players damage reduction against prime evils. This also affects hydras.
- Added a new memory override that completely fixes on melee attack procs proccing off each other, leading to crashes. Previously, different melee attack procs were able to proc other melee attack procs and vice versa, which led to stack overflow crashes.
- Added a new memory override that **allows aura to work on left click**. This is very experimental and there should be no buggy edge cases. Some considerations:
 - You cannot assign the same aura on left and right clicks. Only different auras work to avoid balance issues.
- Added a new memory override that allows the implementation of the item quantity stat. This stat works as a percentage and will make **most** monsters drop more total items. Exceptions:
 - Prime evils - the new item quantity stat does not work on prime evils (this includes act bosses, map bosses, nihlathak superuniques and some other cases).
 - In most cases, this stat works as a **total** multiplier, so on average monsters will drop more items according to the stat (e.g. if monster has a drop pool of 6 items and the player has 50% item quantity, the monster will drop on average 9 items). There are very few exceptions to this where the monsters will drop slightly less items than intended to keep it balanced.
- Added a new memory override that changes the fundamental formula of hit chance / chance to get hit for all units in the game. Below is a graph of the old formula hit chance (blue line) and the new formula hit chance (purple line). Low attack rating / defense values are now significantly more punishing in order to encourage players not to skip on those. Investing in AR/def is also more rewarding now as the new curve does not approach asymptotic growth too fast. In order to allow 100% hit chance to be achievable, the new curve is less asymptotic towards 100% and hit chance over 99.5% is considered as 100%, which is crossed at exactly the ratio of 104 of AR/def.



- Applied a few new memory overrides that improves how magic find works for rare, set and unique items. Below is a table with various magic find breakpoints, old values you'd get from magic find bonus (in %) and new values. For example, at 1000% magic find, uniques are 4 times more likely to drop compared to the vanilla 3 times. The absolute bonus no longer caps at a certain point (e.g. unique bonus chance would cap at 350% in vanilla for values approaching infinity).

MF %	Unique vanilla	Unique patched	Set vanilla	Set patched	Rare vanilla	Rare patched
100	171	181	183	193	185	195
250	225	250	266	291	276	301
500	266	316	350	400	372	422
1000	300	400	433	533	475	575
2000	322	522	500	700	561	761
5000	338	838	554	1054	635	1135

Autostocker

- Now works properly when only the inventory is opened (no longer attempts to close the cube before it is done with all stockers).

- Fixed a few other minor bugs. Please report bugs as you find them.

General

- Now all characters start with 20 attack rating (up from 5 for some classes).
- Attack speed from skills is now called “base attack speed” because it follows a different formula from item attack speed (athulua’s wisdom is a special case, it provides item type attack speed).
- Physical resistance curses no longer reach a cap (it was 60% for amplify damage, 40% for iron maiden, 60% for holy ward, 40% for decrepify). Reduced the effect by a flat 5% at level 1 for those skills.

Cube Recipes

- Normal (including low quality and high quality) items can now be corrupted and anointed. Runewords cannot be corrupted and anointed in order to avoid double corruption/anointment abuse and other issues.
- Crafted and magic items can now be corrupted as well.

Items

- A significant amount of unique items and some runewords have been reworked. The goal is for every unique to have an use case and/or enable interesting builds. A list of the most important changes below.
- Special effects of unique items do not stack unless stated otherwise.
- **Ember of Creation (new unique jewel)** - Grants 1 random oskill of all available class skills. Can only drop in endgame maps and grants +20 level requirement. Can’t be rolled or rerolled through any recipe. A few skills that have special animations cannot roll due to engine limitations, e.g.: Smite, Traps, Psychic Hammer (non-native classes do not have the animations for those spells and they remain stuck when attempting to cast them). A few skills that require class weapons are also excluded (e.g. assassin charge ups).
- **Inarius’ Everburning Halo (new legendary consumable)** - Transmute with any equippable item to duplicate that item. “Mirrored” items are marked as “Branded” and cannot be modified in any way.
- **Stone of Jordan** - Now requires level 45 and two perfect gems to reroll.
- **The Soul Engine - New mythical unique.**
- **Enigma (Iod runeword)** - Can now generate elemental novas when tathamet is equipped. The resistance reduction also scales with levels now.
- **Tathamet** - The elemental novas now deal full damage (they previously dealt half damage, not 1/3 of the damage, but the display was misleading in the docs).
- Most mythical uniques have received some changes.
- **Jah rune** - Now provides -33% target defense in weapons.
- **Socket Donut** - Increased cost from 20k to 100k gold.
- **All gems** - Increased their cost by 2 times.

Cube Recipes

- **Secret Recipes 31-36** - In order to avoid compatibility bugs based on the new special effects of unique gloves, belts and boots, the unique conversion for those recipes has been temporarily disabled. This will be revisited in the future once the mod will be able to support more states and stats.

Vessel of Souls

- Increased the soul cost of some tier 1 recipes (some recipes now require double the amount of souls on tier 1). This is mostly to limit the lag of most procs.
- Added a new group of cast on cast recipes.

Stats

- **Bleed** - New stat, replaces the old open wounds functionality. The new stat functions identically to poison behind the scenes (damage from multiple sources gets cumulated, length gets averaged), the notable differences are:
 - The listed values are how much damage the bleed does out of the final physical hit. For example, a physical hit that damages the monster for 1000 damage and that inflicts a 50% bleed over 5 seconds will cause the target to take an additional 500 damage over 5 seconds.
 - Bleed entry calculation point is the final physical hit, so it takes into account deadly strike, enemy physical resistance. Crushing blow does not affect bleed.
 - Bleed works for any physical damage dealt. This includes physical damage spells (e.g. sandstorm), ranged attacks, missiles etc.
 - Added bleed as a possible affix on weapons as well as several unique items and runewords.

Affixes

- Added a new array of affixes for a few weapon categories, including cast on cast affixes. Check the affix pages for more details.
- Reworked the affix pages, every weapon/armor type now has their own category table in order to be more easily readable.

Monsters

- **Bloodbound Marauders** - Now their low life enrage that grants them life regen per second will last only 1 second, down from 6 seconds. It can still trigger on any damage taken. Fixed a bug where the heal was ~150 times stronger than intended.
- **Fetish Shamans** - Halved their inferno damage.
- **Lucion** - Now summons high priests alongside his jump and fire nova. Will no longer be able to summon multiple pairs of high priests at once.
- **The Lich King** - Now summons valkyries alongside his jump. Will no longer be able to summon multiple pairs of valkyries at once.

- **Vile Mothers** - In order to avoid a crash issue, they no longer spawn vile children. Instead, they now lay eggs that explode in a nova of goo which deals 100% weapon damage.
- **Raven Nests** - Removed from the game (for the same reason as above).
- **Duriel** - Way more dangerous now. Uses frenzy. His cataclysm skill deals 200% weapon damage, but it is now telegraphed and you can easily avoid the falling rocks.
- **Stone Warden** - Now uses the same cataclysm skill that duriel uses.
- **Ghastly Horsemen** - Replaced the broken charge with Decrepify. They will now cast Decrepify when out of melee range.

Hirelings

- Added a new memory override that fixes the random generator for hirelings. They can now use items/skills with built in rng.
- Added a new memory override that fixes some auras not applying a part of their stats to the hirelings.
- Doubled base defense and increased base attack rating by 5 times to compensate for the hit chance overhaul.

Ascendancies

- **Mana Warden** - Increased spell damage per mana regen from 1% spell damage per 25% mana regen to 1% spell damage per 20% mana regen and minimum damage to attacks from 1 per 15% mana regen to 1 per 5% mana regen. Reduced mana gained from tier 4 upgrade from 1 mana per 1% mana regen to 1 mana per 2% mana regen.
- **Nomad** - Reworked.
 - **Tier 3** - Now grants 5 maximum damage per 5% faster run/walk or 1% base run/walk. Replaced stamina and dodge bonus with faster run/walk and bleed.
 - **Tier 4** - Now grants 5% dodge chance per 200% faster run/walk or 40% base run/walk.
 - **Tier 5** - Scurry now grants 25% total maximum physical damage to attacks instead of 2000 stamina.
- **Awakened** - Reduced Annihilation weapon damage from 75% to 50%. Poison nova no longer deals weapon damage.

Weapon Mastery

- **Claws** - Now all charge up skills count toward the damage bonus. Previously, only elemental and phoenix strike charges counted.
- **Maiden Javelins** - Changed the extra explosion to +2 javelins every 3 throws, damage penalty remains unchanged. Athulua's Final Hunt now doubles total javelin throws instead of adding 1.

Oskills

- Added a few new oskills for various base types.
- **Emberquake** - Now uses a regular attack animation and can be used in any form.

Amazon

- **Strafe** - Bolts now have the same functionality as arrows (no longer split mid air). This led to some issues and the damage overflow issues have been fixed anyway (which was the main reason for the previous functionality).
- **Multiple Shot** - Now deals 125% weapon damage and has a next hit delay of 1 frame again. Since overflow is fixed, this variant should be more attractive now, especially when paired with bleed damage.
- **Legendary Arrow** - Bolts now have the same functionality as arrows once again (no longer fires two arrows at reduced damage).
- **Plague Javelin** - Increased number of splits on secondary bolts from 2 to 4. Also fixed a bug where its base damage was 40% lower than intended (as if weapon mastery was always active).
- **Frost Javelin** - Increased base damage by ~20%.
- **Fend** - Added next hit delay of 4 frames for both novas, big nova now deals 100% weapon damage and the small one deals 150% weapon damage. This skill should be suitable for bleed builds now.

Assassin

- Fixed a bug where Wake of Fire, Lightning Sentry and Meteor Sentry were not taking bonus synergy damage from Death Sentry.
- **Psychic Hammer** - Increased number of hits from 2 + 1 per 3 levels to 3 + 1 per 2 levels.
- **Burst of Speed** - Speed increase now scales linearly with levels. Reduced values a bit. Should have less speed at earlier levels and higher speed at higher levels. It is now marked as an unique discipline that cannot stack with other disciplines.
- **Fade** - Resistance bonus now scales linearly with levels. Reduced values a bit. Should have less resistances at earlier levels and higher resistances at higher levels. It is now marked as an unique discipline that cannot stack with other disciplines.
- **Venom** - Significantly buffed the poison damage. It is now marked as an unique discipline that cannot stack with other disciplines.
- **Shade Armor** - It is now marked as an unique discipline that cannot stack with other disciplines.
Buffed the synergies from venom and burst of speed for all unique disciplines.
- **Cold Blast** - Increased base damage by ~25%.

- **Shuriken Trap** - Reworked. Now releases shuriken waves that deal 200% weapon damage, up from 65%. Shuriken waves, number of targets and seek range scale with level.

Barbarian

- **Close Combat Mastery** - Renamed to Combat Mastery. Grants % damage and attack speed. Works with all weapons.
 - **Throwing Mastery** - Renamed to Precision Mastery. Grants attack rating, deadly strike and pierce chance. Works with all weapons.
- Both masteries now follow a linear formula for all bonuses.
- Disclaimer: Most custom attacks, including a lot of barbarian's attacks aren't technically considered melee hits, such as overwhelm's boulders, berserk's nova, even most of stun's hits, so they did not count as melee hits for the purpose of close combat mastery bonuses.
- **Axe Swarm** - Reduced total number of axes by 30% at all levels. Reduced weapon damage from 30% to 25%. Added damage per level and damage synergy from whirlwind. Seek range is now a fixed 10 yards.
 - **Phantom Hatchets** - Now returns to the caster on reaching the end of its path. Now pierces by default. Reduced number of hatchets per level from 1 per 4 levels to 1 per 5 levels. Reduced range.
 - **Nova** - reduced damage at higher levels by ~30%.
 - **Call of the Ancients** - Increased damage at lower levels by ~50%. Bolts will now spawn close to walls instead of beyond walls, making it much better in tight spaces.
 - **Vigor of the Ancients** - Now regenerates 0.15% of max hp per base level instead of level. Increased the flat recovery amount to compensate. Should be more useful at lower levels and less powerful at higher hp pools.
 - **Whirlwind** - Now whirlwind spins you once again. Increased weapon damage to 150%. Whirlwind now deals splash damage for every enemy hit equal to 100% of your weapon damage. Changed some synergies. Removed all whirlwind procs from the game.
 - **Frenzy** - It is now a dual swinging skill once again. Increased weapon damage to 150%. Removed all frenzy procs from the game.
 - **Battle Command** - Now provides some experience gained.
 - **Overwhelm** - Added damage per level and synergy scaling.
 - **Stun** - Added damage per level and synergy scaling.
 - **Berserk** - Reworked. Now releases a fully converted magic nova and a physical damage nova that also deals 200% weapon damage. Main target gets hit multiple times. Maximum resistance penalty scales with level now. Added total physical attack damage scaling per level. Reworked the special synergy.
 - **Leap Attack** - Fixed an issue where leap attack would bug out with certain weapons.

Druid

- Increased base defense and attack rating slightly for all summons.
- **Sandstorm** - Fixed a bug where sandstorm was not applying physical resist reduction.
- **Summon Grizzly** - Now uses a modified version of shock wave that should be significantly less laggy.
- **Avatar of Nature's Horns (mythical unique)** - The pounce travels much faster now, has the same area of effect but should be significantly less laggy.

Necromancer

- Increased damage of all magic damage spells across the board. Bone spirit received double damage and mana cost increase, other spells have had their base damage increased by ~50%.
- **Bone Wave** - Fixed an issue where bone wave dealt no damage and souls from bone mastery would not spawn. Also fixed an issue with bone wave spawning invisible missiles.
- **Hell's Gate** - Fixed an issue where hell's gate dealt no damage to nearby enemies at high levels.
- **Poison Explosion** - Fixed a bug where synergies weren't granting the right amount of damage.
- **Dim Vision** - It is now considered a curse again and no longer stacks with other curses.
- **Confuse** - It is now no longer considered a curse and can stack with other curses.

Paladin

- **Smite** - Now applies extra hits based on the amount of defense you have. Reduced damage a bit to compensate. Can now convert damage to magic based on Holy Ward level.
- **Charge** - Reduced weapon damage from 150% to 100%. Reduced attack rating bonus, removed damage bonus. Now deals area of effect damage near the target hit (you need to hit a target to trigger this aoe damage). It also applies a smite hit to the main target along with any extra hits smite currently has (minus the smite synergy buffs). Can now convert damage to magic based on Holy Ward level.
- **Holy Armor** - Reduced smite damage bonus drastically.
- **Aura of Divinity** - Experience gained now scales higher than 25% and scales with light radius now.
- **Holy Fire, Freeze, Shock** - Tick rate now scales with faster cast rate instead of levels at a -0.04 seconds per 25% faster cast rate. Starting tick rate is 1 second, down from 2 seconds. Halved bonus damage to attacks.
- **Holy Armor** - Reduced chance to block from 5% + 1% per 2 levels to 3% + 1 per 5 levels.

Sorceress

- **Fanatic Swing** - Doubled the base damage of the procs from weapon mastery.
- **Power Overwhelming** - Fixed a bug where the crit chance was actually 15% instead of 25%.
- **Telekinesis** - Slightly reduced base damage at lower levels, increased base damage at higher levels.
- **Static Field** - Slightly increased base damage at higher levels.
- **Hydra** - Moderately increased base damage at higher levels.
- **Energy Shield** - Added mana bonus while active, 50 + 10 per level.