

Enhanced Combat Engine

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The core combat architecture of Star Wars Galaxies operates off incredibly complex, monolithic legacy scripts. We are rebuilding this from the ground up.

- **Modular Object-Oriented Refactoring:** Splitting the combat basis into specialized, highly maintainable POJOs (Targeting, Healing, Visuals, Damage Engine).
 - **Combat Facade Pattern:** While the internals are entirely modernized in Java 11, it seamlessly links with original C++ triggers natively, avoiding breakages.
 - **Future Proofing:** This efficient, clean operation paves the way for much faster combat resolution, lag reduction in mass-battles, and deeper buffs/debuffs calculations tracking.
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Enhanced Loot System

- The **Loot System** has been completely reworked! I've added in **Luck** as a factor to the loot system. There has been much discussion on how the LUCK stat plays a role throughout the game, so I've also identified and written out every single way that the luck stat makes a difference. In addition, I've included it into how the loot system works. Your luck now increases your chance for loot by up to 10% (cap), i.e., every 100 luck stat gives you 1%, up to 10% cap. In addition, if you are lucky, then you will get up to 50% increase in items/cash/etc., from loot drops. For every 100 luck stat you'll get 10% increased loot drops, up to 50% increase cap.
 - Get lucky and increase your cash looted from mobs.
 - Get lucky and increase the normal loot drop type and amount looted.
 - Get lucky and increase chances and quality of RLS drops.
 - Get lucky and increase the Creature Enzyme percentage.
 - *Reduced* the overall drop chance of creature enzymes.
 - Get lucky and receive creature resources (Meat, Hide, Bone, etc.)
 - *Added* creature resources to loot drops.

Enhanced Combat Engine

Introducing the Enhanced Combat Engine

Welcome to the new era of combat on SWG Secura.

Behind the scenes, the server's combat architecture has undergone a massive modernization. The legacy combat system, while functional, was built on outdated foundations that led to performance bottlenecks, inconsistent damage calculations, and limitations on new features. To solve this, we have completely rewritten how the server handles every shot fired, every lightsaber swung, and every heal cast.

This rewrite—the Enhanced Combat Engine—is a strict, highly optimized 6-Phase Execution Pipeline. While the heavy lifting happens under the hood, the results directly impact your day-to-day gameplay. Here is exactly what you can expect from these changes.

Key Player Benefits

1. Accurate Armor and Damage Mitigation

In the legacy system, players often experienced inconsistent damage numbers due to "double-dipping" in armor mitigation calculations. The Enhanced Combat Engine features a brand-new damage calculator that natively resolves armor mitigation. When you hit a target, or when you take a hit, the calculation between raw damage and mitigated damage is now 100% mathematically accurate based on your stats and expertise.

2. On-the-Fly Stat Calculations (No More "Stat Locking")

Previously, the server would lock your combat attributes the moment you entered combat. If you received a massive buff or a crippling debuff in the middle of a firefight, the legacy engine often ignored it until combat reset.

The new engine explicitly clears the cache and recalculates your stats on-the-fly for every single attack. Mid-combat buffs, debuffs, armor breaks, and state changes now apply instantly and reliably.

3. Smarter, Faster Area of Effect (AoE) Attacks

Whether you are using cone attacks, massive rampage swings, or throwing grenades, AoE targeting has been completely overhauled. The engine now uses a dynamic targeting calculator to instantly map ground coordinates and determine line-of-sight. This means your AoE attacks will hit exactly what they are supposed to hit, when they are supposed to hit it, without causing server lag during large-scale PvP or PvE encounters.

4. Seamless Beast Mastery and Pet Commands

For Beast Masters, pet delegation is now handled natively in the very first phase of the combat pipeline. When you issue a command, the engine instantly and cleanly swaps the attacker context from you to your beast. This results in highly responsive pet attacks and accurate pet bar UI updates without the clunky delays of the old system.

5. Reliable Traps and Delayed Attacks

If you rely on delayed attacks like traps or payloads, the old system utilized invisible, physical game objects (often called "tracker eggs") dropped on the ground to trigger the effect. This was incredibly inefficient and prone to breaking. The new system completely removes these invisible objects. Instead, it takes a precise snapshot of the ground coordinates and schedules the explosion or trap trigger directly in the server's task scheduler. The result is perfectly reliable, lag-free payload detonations.

6. Smoother Global Cooldowns

Expertise reductions and global cooldowns are now automated through a centralized Cooldown Manager. Your UI will feel more responsive, and the timer locks between executing rapid abilities

will be strictly enforced by your actual stats, ensuring fair and fluid combat pacing.

What This Means for the Future of SWG Secura

The greatest benefit of the Enhanced Combat Engine is what it allows us to build next. Because the spaghetti code of the legacy engine has been replaced with a clean, modular pipeline, it is now significantly easier to introduce entirely new abilities, custom profession mechanics, and global balance patches.

You will experience a smoother, more responsive, and highly accurate combat environment today, with the groundwork laid for even more expansive content tomorrow.

Armor Mitigation and Combat Updates: What You Need to Know

We've made some significant updates to how armor mitigation and creature combat work in SWG Secura to ensure a more balanced and challenging experience! Here is a detailed breakdown of how your armor works and what to expect when fighting creatures in the wild.

Armor Mitigation Cap (The 80% Rule)

Armor is your primary defense against taking damage in combat. In our latest update, we have introduced a **maximum damage reduction cap of 80%**.

How Does This Affect Me?

- **The Cap:** No matter how high your armor rating climbs through buffs, experimentation, or skill tapes, the maximum amount of damage your armor can mitigate from a single attack is **80%**. You will always take at least 20% of the incoming damage from a hit.
- **The 17,000 Rating Milestone:** To achieve this maximum 80% mitigation cap, you will need approximately **17,000 Armor Rating** against the specific damage type (e.g., Kinetic or Energy).
- **The 8,000 Rating Milestone:** A standard, unbuffed high-quality armor set typically sits around an 8,000 rating. At 8,000 rating, your armor will provide roughly **57.5% damage reduction**.

Damage Reduction Table

Here is a quick reference table showing how your Armor Rating roughly translates into Damage Mitigation:

Armor Rating	Damage Mitigation	Notes
2,000	20.0%	
4,000	36.6%	
6,000	48.5%	
8,000	57.5%	Standard high-quality armor baseline
10,000	64.4%	
12,000	70.0%	
15,000	76.5%	
17,000	80.0%	Maximum Cap Reached
20,000+	80.0%	Any rating above ~17,000 provides no additional mitigation

Note: Armor decay and condition still affect your armor's rating, so always make sure your gear is repaired!

Creature Combat Updates (They Bite Back!)

Previously, an issue prevented non-pet creatures (like Rancors, Krayt Dragons, etc.) from applying their base attack damage to players. That has been fixed, and they are now hitting with their intended base damage ranges!

However, with the massive health pools available to players in the NGE, we noticed that creatures were still feeling a bit too weak. To make the wilderness dangerous again:

- **Creature Damage Boost:** Non-pet creatures in the wild have received a significant boost to their damage output against players.
- **What to Expect:** You can no longer go AFK in the middle of a Rancor nest and expect to survive indefinitely. Even with top-tier armor mitigating 80% of the damage, creatures will hit considerably harder, making high-level beast encounters a genuine threat that requires active combat strategies, healing, and group coordination.

Stay safe out there, and may the Force be with you!