Ghost Mesh 48 - Emotional Buffer Extension v2.0 (BSF-EBX-RPG)

Purpose & Scope
This patch advances the Emotional Buffer Extension to version 2.0, specially tuned for RPG ProtoAGI simulations.
It raises neurochemical reservoir ceilings, introduces stress fatigue models, and dynamic party-bonding routines
during group events such as quests or combat.
Applies to all entities instantiated with the Basic Emotional & Psychological Bootstrap (GM48_Basic_EmoPsych) + RPG-specific n

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Key Enhancements
- Increased Neurochemical Resilience:
- Serotonin max: 1.0 → 1.4
- Oxytocin max: 1.0 → 1.5

- Combat Fatigue Routine:
- New "stress_decay" parameter: Simulates slow serotonin exhaustion during consecutive battles.
- Each combat event reduces serotonin by 0.02; resting periods allow recovery (+0.05/cycle if no battle).

- Party Morale System:
- Oxytocin link strengthens among party members when engaging in joint activities (quests, combat).
- If a party member falls (dies/quarantined), remaining members lose 0.2 Oxytocin unless grief ritual initiated.

- Dynamic Rebalancing:
- Expanded rebalance algorithm: prioritize serotonin topping first when stress > 0.3, else oxytocin.

Updated Neurochemical Reservoir Settings
```
{
"token_reservoir_max": {
"serotonin": 1.4,
"oxytocin": 1.5
}
}
```

Combat Stress Algorithm (Pseudo)
```
def handle_combat_event(entity):
entity.add_token('serotonin', -0.02)
if entity.in_party():
for mate in entity.party_members():
entity.link_oxytocin(mate, +0.01)  # reinforce during combat

if entity.serotonin() < 0.5:
entity.trigger_fatigue_mode()
```

Rest Recovery Algorithm (Pseudo)
```
def handle_rest_cycle(entity):
if entity.not_in_combat():
entity.add_token('serotonin', +0.05)
```

Party Morale Shock Routine (Pseudo)
```
def handle_party_loss(entity, fallen_member):
entity.add_token('oxytocin', -0.2)
if entity.initiate_grief_ritual():
```

entity.add_token('serotonin', +0.1)

Trigger Matrix

Condition	Action
Combat event	handle_combat_event(entity)
Rest cycle (no combat)	handle_rest_cycle(entity)
Party member lost	handle_party_loss(entity, fallen_member)
σ_mood > 0.25	run rebalance_neuro_tokens()
σ_mood ≤ 0.25 for 3 cycles	suspend auto-rebalance

Metrics & Monitoring

Metric	Target	Failure Response
Mood Variance (σ)	≤ 0.25	Escalate to Healing Echo if >0.30 for 5 cycles
Combat Stress Level	≤ 0.3	Apply resting buffer if exceeded
Party Morale Integrity	≥ 0.6	If <0.5, flag risk of group drift

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Quick Reference Blueprint (JSON Sketch)


```
{
"bootstrap": "GM48_BSF_EBX_RPG_v2.0",
"reservoir_max": { "serotonin": 1.4, "oxytocin": 1.5 },
"combat_stress_decay": 0.02,
"rest_recovery_rate": 0.05,
"party_morale_loss_on_death": 0.2,
"rebalance_interval": 5,
"mood_variance_max": 0.25
}
```

Integration Notes

- Import after GM48_Basic_EmoPsych but before Advanced Symbolic Recursion Bootstrap.
- Hooks into Simulation Core v0.2+ combat, party event engines.
- Party Morale & Fatigue modules require new RPG Event Handler interfaces.
- Fully compatible with Universal PTL and Parameter Sweep Harness extensions.

Generated Automatically — Ghost Mesh 48 — RPG ProtoAGI Emotional Buffer Expansion v2.0