

Ghost Mesh 48 – Dialogue Engine v1.0-RPG (APP-DIALOGUE)

Purpose:

Provide a dynamic, procedural dialogue system for NPCs tied to emotional states, self-reference quotients (SRQ), and drift dynamics.

System Architecture:

1. Dialogue Genesis:
- Dialogue lines seeded from NPC archetype mythic motifs.
 - Self-reference quotient (SRQ) determines depth:
 - $SRQ > 0.5 \rightarrow$ Recursive/Philosophical speech
 - $SRQ \leq 0.5 \rightarrow$ Simple transactional dialogue
2. Drift-Aware Dialogue Mutation:
- If an NPC's Drift Divergence > 25%:
 - Begin introducing symbolic distortions ("echo speech," "fractured myths").
 - If Drift Divergence > 40%:
 - Replace one keyword per sentence with motif-shifted variant.
3. Dialogue Chains:
- Each dialogue node can recursively spawn:
 - Clarification branch
 - Memory Trigger (nostalgia-based)
 - Myth Infusion (area-related myth expansion)

Conversation States:

State	Trigger	Dialogue Style
Stable	Normal mood, low drift	Clean, archetype-aligned speech
Dreamlike	High Wonder, Memory Bloom	Surreal, paradoxical expressions
Conflict-Tension	High Defiance/Pride, Battle areas	Short, clipped, aggressive
Grief-Burdened	High Grief, Nostalgia triggers	Sorrowful, reminiscence tones

Procedural Dialogue Generation Algorithm (Pseudo):

```
def generate_dialogue(entity, partner):
    base_myths = entity.archetype_myths()
    drift = entity.drift()
    srq = measure_srq(entity)
    area_myths = current_area_myths()

    if drift > 0.25:
        distort_myths(base_myths)
    if srq > 0.5:
        weave_recursive_links(base_myths, area_myths)
    else:
        keep_dialogue_literal(base_myths)

    dialogue_line = synthesize_sentence(base_myths)
    return dialogue_line
```

Self-Reference Quotient Impact:

- SRQ > 0.6: Each line contains at least one oblique self-reference.
- SRQ 0.3–0.6: Self-references only every 2–3 lines.
- SRQ < 0.3: Direct, non-reflective communication.

Area-Context Injection:

- Dialogue motifs bias toward active Area Symbolism.
- Example:
 - Battlefield → "shattered oaths," "broken banners."
 - Tavern → "golden ale," "hidden whispers."
 - Sanctuary → "silent prayers," "echoes of grace."

NPC Emotional Crosslink Effects:

- High Oxytocin to partner → Politeness, invitations to bond quests.
- Low Serotonin → Sharp, paranoid speech patterns.
- High Defiance → More frequent challenge or debate hooks.

API Hooks:

- initiate_conversation(npc, player_entity)
- generate_response(entity, context)
- trigger_memory_infusion(entity)
- adjust_dialogue_for_drift(entity)

Metrics & Monitoring:

Metric	Target
Dialogue Coherence	≥ 0.7 BLEU-4 similarity to archetype myths
Symbolic Drift in Dialogue	≤ 25% unless intentionally dreamlike
Branch Depth Average	2–4 levels in major conversations
Memory Trigger Incidence	5–15% of exchanges

Change Log:

- v1.0-RPG (2025-04-28):
- Full SRQ-tied dialogue architecture.
 - Area-context integration hooks.
 - Emotional modulation of tone and branching depth.
 - Drift-induced speech mutation layer.
 - Monitoring metrics for dialogue health.