

# Forensic Analysis Report

Neuro-Symbolic Crisis Generator • Comprehensive Evaluation

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## Test Configuration

**Model:** GPT-4o

**Temperature:** 0.7

**Mode:** Thesis (Full Validation) vs. Legacy (Skip Validation)

**Max Iterations:** 20 per Scenario

**Execution:** Parallel (2 Scenarios simultaneously)

# Executive Summary

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**Note:** This report uses **Deep Forensic Analysis** data from refinement loops. The numbers below reflect actual errors caught during validation, not surface-level batch comparison.

10

UNIQUE INJECTS ANALYZED

4

ERRORS PREVENTED (FORENSIC)

2

TOTAL SCENARIOS

40.0%

REJECTION RATE

# Statistical Significance Analysis

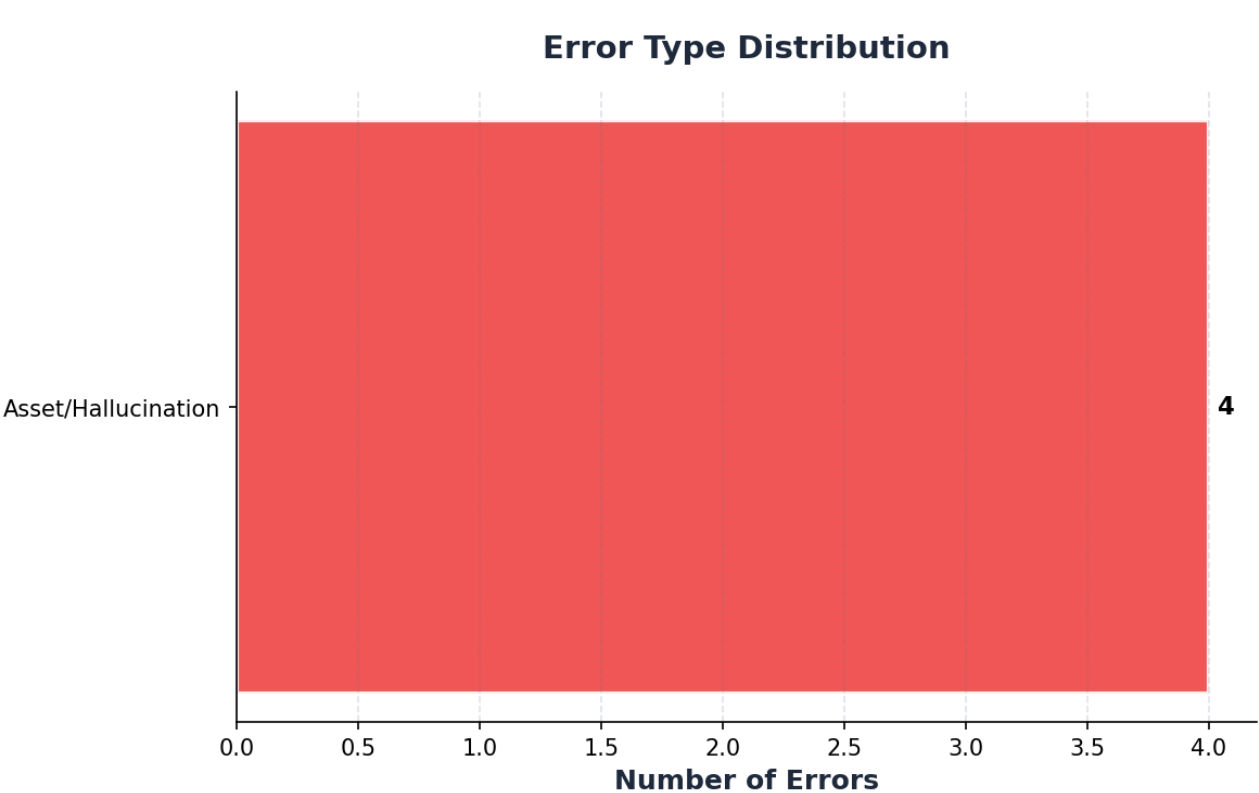
## Hypothesis Testing

**H0:**  $\mu_{\text{legacy}} = \mu_{\text{thesis}}$  (No difference)

**H1:**  $\mu_{\text{legacy}} > \mu_{\text{thesis}}$  (Thesis reduces hallucinations)

METRIC	VALUE	INTERPRETATION
Mean Difference	0.000	Legacy - Thesis hallucinations
T-Statistic	nan	Test statistic
P-Value	NAN	Significance level
Cohen's d	0.000	Effect size: Negligible
95% CI	[0.000, 0.000]	Confidence interval
Sample Size	2	Number of scenarios

# Qualitative Error Pattern Analysis



CATEGORY	COUNT	THESIS INTERPRETATION
Asset/ Hallucination	4	LLM invents non-existent assets. System enforces reality.

## Exemplary Interventions

**Hall of Fame:** Concrete examples of errors caught by the Critic Agent

**Asset/Hallucination:**

"Asset error"

# Refinement Efficiency Analysis



**0.00**

AVG REFINES PER SCENARIO

**0**

MAX REFINES NEEDED

**100.0%**

FIRST ATTEMPT SUCCESS RATE

# Cost-Benefit Analysis

54

AVG LEGACY API CALLS

54

AVG THESIS API CALLS

0.0%

OVERHEAD

0

TOTAL PREVENTED

# Forensic Analysis Details

10

TOTAL EVENTS

10

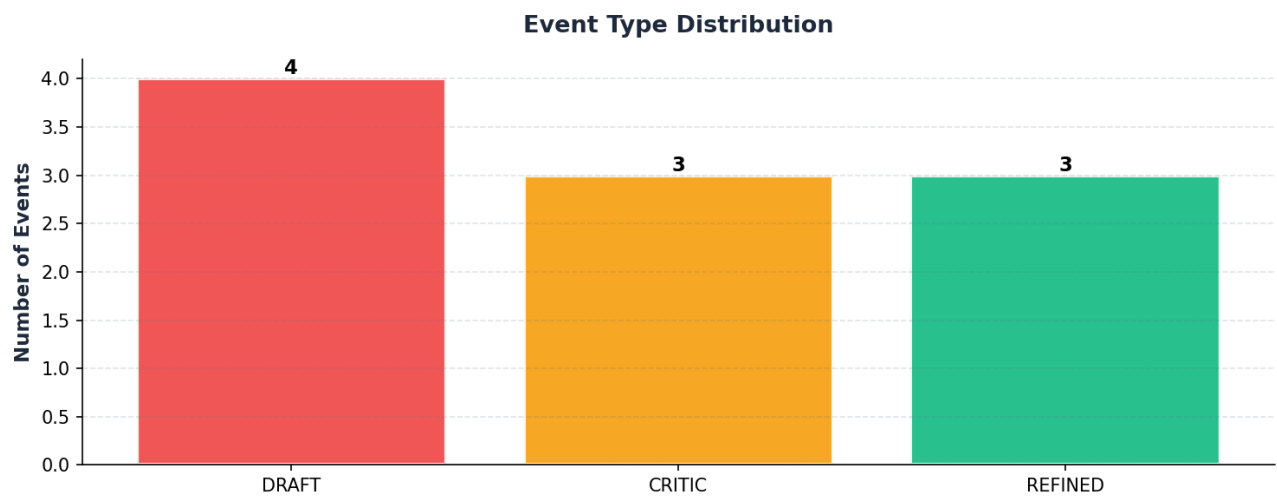
UNIQUE INJECTS

40.0%

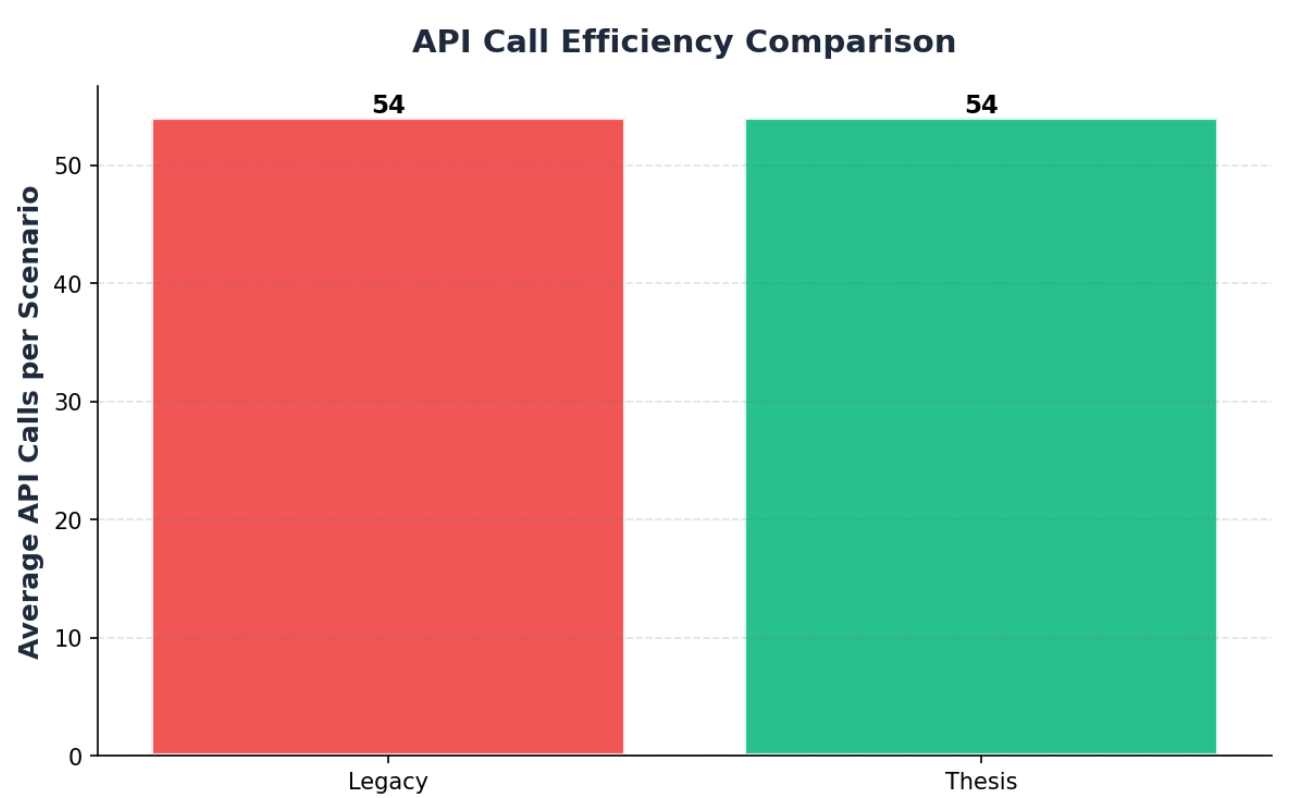
REJECTION RATE

0.90

AVG REFINES PER INJECT



# API Call Efficiency



## Detailed Results by Scenario

Scenario ID	Legacy Hallucinations	Thesis Hallucinations	Hallucinations Prevented	Thesis Refines
SCEN-000	0	0	0	0
SCEN-001	0	0	0	0