

# **Process Observability from Internal Messages**

From raw Slack & email to live process state.  
(Demo version)

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# Motivation

## **The problem:**

- Process updates are scattered across Slack & email
- Status is implicit, informal, and fragmented
- Leaders ask for updates → teams lose time answering

## **What we want:**

- A live, trustworthy view of process state
- Without changing how people communicate

# Core question we want to answer

How strong a signal can we extract purely from messages, end-to-end?

- No integrations
- No custom schemas per team
- No manual labeling upfront

# Approach (intentionally simple)

1. Normalize raw messages
2. Extract structured “events” with an LLM
3. Cluster events into process instances
4. Infer current state per instance with an LLM
5. Show everything in a reviewable dashboard

## **Key principle:**

Every inference is backed by evidence.

Each step produces inspectable output.

# Live demo

# Strengths

- End-to-end works today
- Inspectable and auditable
- Handles ambiguity honestly
- No upfront process instrumentation
- Human-reviewable by design

# Known limitations (by design)

- Mixed topics in long status threads
- Some ambiguity in step inference
- LLM cost not optimized
- No write-back to source systems

# What can be optimized

- Deterministic clustering & timestamps
- Process-aware step inference
- Cheaper models or fewer calls
- Partial replacement of LLM steps



# Next steps

- Evaluate accuracy on a small real process
- Add lightweight human review loop
- Bring back process definitions as constraints
- Decide scope: assistive tool vs system of record