

# Longitudinal self-specification

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# Longitudinal self-specification through repeated AI operator correction

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## ## Abstract

Spec treats Alan's personality-instruction revisions as a longitudinal HCI artifact. Each revision stores the full instruction text, revision date, source path, short change summary, PDF export, and analysis state. The central finding is that repeated AI friction can be converted into a durable operating contract: source discipline, visual standards, paper continuity, paper-template preservation, cognitive-load control, and explicit done reporting become reusable interface constraints instead of repeated prompting. The current record includes recovered local Codex session history, not only the latest hand-entered contract.

## ## Current evidence

The stored artifacts include 41 instruction revisions from local Codex history and the current local `AGENTS.md` contract. The current revision includes source-of-truth operation, continuous paper discipline, a mandatory canonical LaTeX paper-template rule, a website quality bar, look-and-feel inference, visible-language constraints, neurodivergent cognitive-load rules, and automatic recording of future personality-instruction revisions in Spec.

The current local Codex memory also records a repeated correction pattern: Alan prefers current source inspection, global correction of the shared failure mode, compact AGENTS.md-ready rules, verification of the artifact that matters, and plain reporting of blocked or uncertain states.

## ## Novelty

The paper-worthy object is not a prompt library. It is a preference-to-contract loop.

1. AI failures expose hidden interface requirements.
2. Alan's corrections convert those requirements into explicit operating rules.
3. The rules become acceptance tests for future AI work.
4. The record can be analyzed as a longitudinal model of preference, friction, focus, and answer quality.

This reframes personalization as self-specification. The user is not only asking for a better assistant. The user is building a living standard for what good AI work means in their own cognitive, aesthetic, research, and operational context.

## ## Neurodivergent interaction fit

Alan explicitly connected the instruction work to ADHD and autism. The relevant metric is not generic satisfaction. The stronger target is reduced repeated prompting burden: fewer forced explanations of source discipline, visual taste, tone, layout, verification, deployment state, paper continuity, and answer shape.

The recovered history shows repeated tightening rather than a single preference statement: broad operating instructions narrowed into outcome contracts, then into a personality rule that Alan should not be the quality-control loop. The current paper-template revision treats format drift as a recurring assistant failure mode. Generated papers now default to Alan's canonical LaTeX article scaffold unless a current venue or repo-local template explicitly overrides it.

The current UI revision also treats cognitive load as an app-level requirement: fewer default panels, a single current record, one latest finding, revision rows, and details behind disclosure.

Spec can track whether revisions reduce the same repeated failures and the same repeated overwhelm over time.

## ## Data boundary

Archived ChatGPT history is not ingested yet. The current record is seeded from local instruction

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artifacts and Codex memory summaries. Deeper analysis requires exported or connected archived chats, ChatGPT memory, and any future instruction versions Alan wants recorded.

## Initial measurements

- Stored revisions: 41 local Codex instruction records after recovered-history import
- Public artifact: Spec tile on aolabs.io
- Planned analysis model: gpt-5.5, configurable through `SPEC\_ANALYSIS\_MODEL`
- Storage target: Railway volume at `/data`
- Output contract: date, summary, full text, PDF, analysis