Agentic system states and behavior

From human interaction to system logic. The AI workflow framework maps what users experience at each stage. This diagram shows what the system is doing underneath — the states it moves through, the behaviors it executes, and where design decisions determine what users see, control, or never notice.

Idle

Discover / Initiate

System is ready. No task running. Awaiting user initiation.

Agent dashboard shows no active jobs. User sees a start prompt.

Gathering context

Input / Prompt

Agent collects inputs, constraints, and intent before acting. Maps to the user's prompt submission.

"Find biotech CEO candidates in California with strong academic background."

Planning

AI Processing

Agent reasons through the task and selects tools and sequence of actions.

Decides to use LinkedIn search → profile parser → ranking filter in sequence.

Tool execution

AI Processing

Agent runs tools, queries APIs, and processes live data. Output is non-deterministic — same input may yield different results each run.

Searches LinkedIn, applies experience and location filters, gathers matching profiles.

Validation

AI Processing

Agent checks whether output meets original criteria. May silently re-rank or surface a confidence signal.

Checks: do candidates actually have CEO-level leadership and biotech background?

Human approval

Review Output

Workflow pauses. Agent waits for explicit human decision before proceeding with sensitive or irreversible actions.

Top 5 candidates surfaced. Agent waits before initiating any outreach.

Failure recovery

Iterate & Refine

Agent detects weak results or errors. Retries with adjusted parameters, or escalates to the user.

Adds "CEO," "Founder," "President" keywords and reruns — notifies user if retry limit is reached.

↺ Feedback loop — agent may re-enter Planning or Tool execution from here

Complete

Iterate & Refine

Task finishes successfully. Results delivered. System returns to idle or queues next task.

Ranked candidate list delivered. Option to re-run, refine criteria, or save results.