

GitHub Agentic Workflows

TECHNICAL PREVIEW



MONA LISA

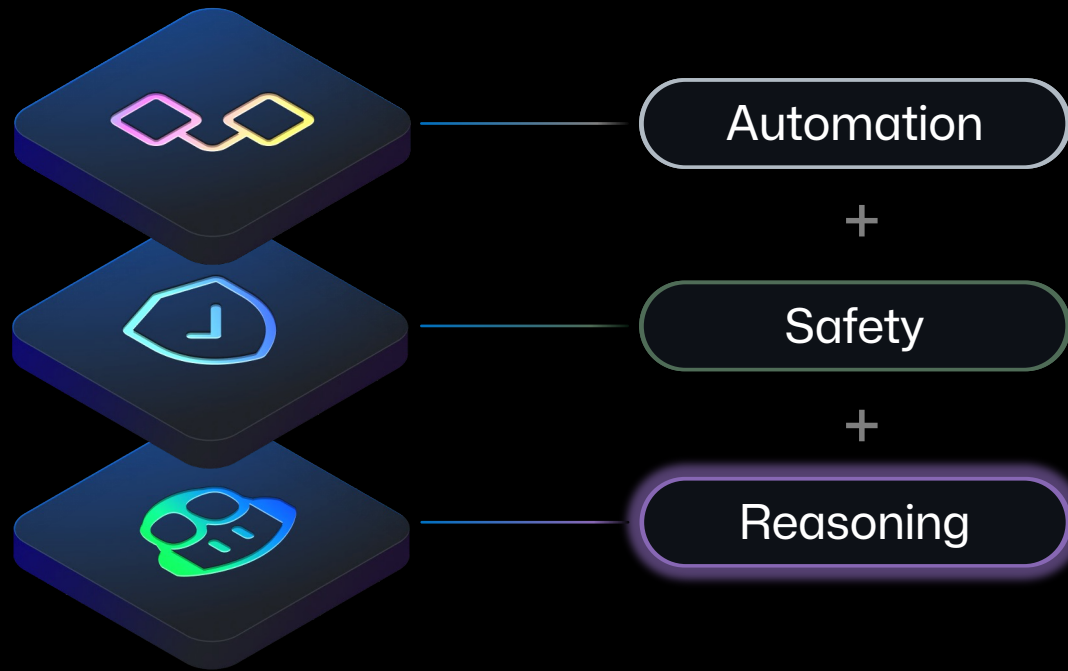
Mascot
GitHub

MADE WITH ♥ BY

GitHub Next, Microsoft Research,
Azure Core Upstream & GitHub Actions

GitHub Agentic Workflows

Agentic human processes powered GitHub.



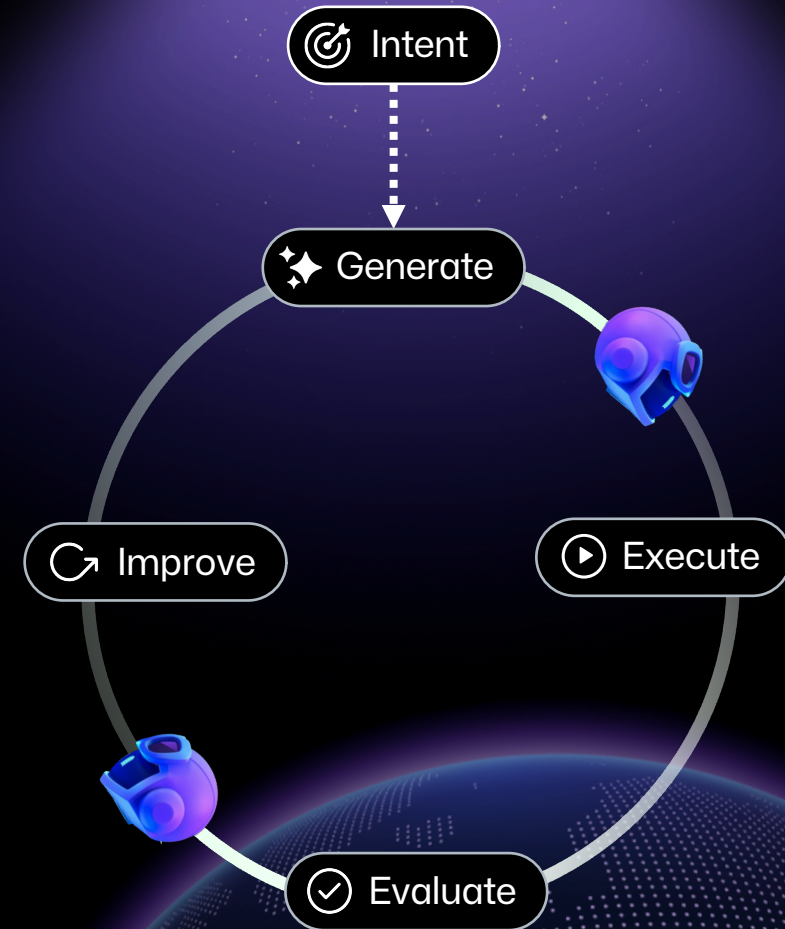
Workflows executed via GitHub Actions written in natural language.

Isolated sandboxes with scoped permissions and network control.

Agents interpret intent & operate on context across models. Copilot CLI · Claude · Codex · Gemini

Automate all the things

- 🎯 Agents accelerate the entire SDLC.
Every step of our software process can be “agentified”.
- ✅ Automation is the true accelerator.
Completion: 1.4x, Dev solo: 10x, Automation: 100-1000x.
- 🔄 Scale with processes not swarms.
Orchestration not chaos.



Automated Reasoning for everyone & every organization

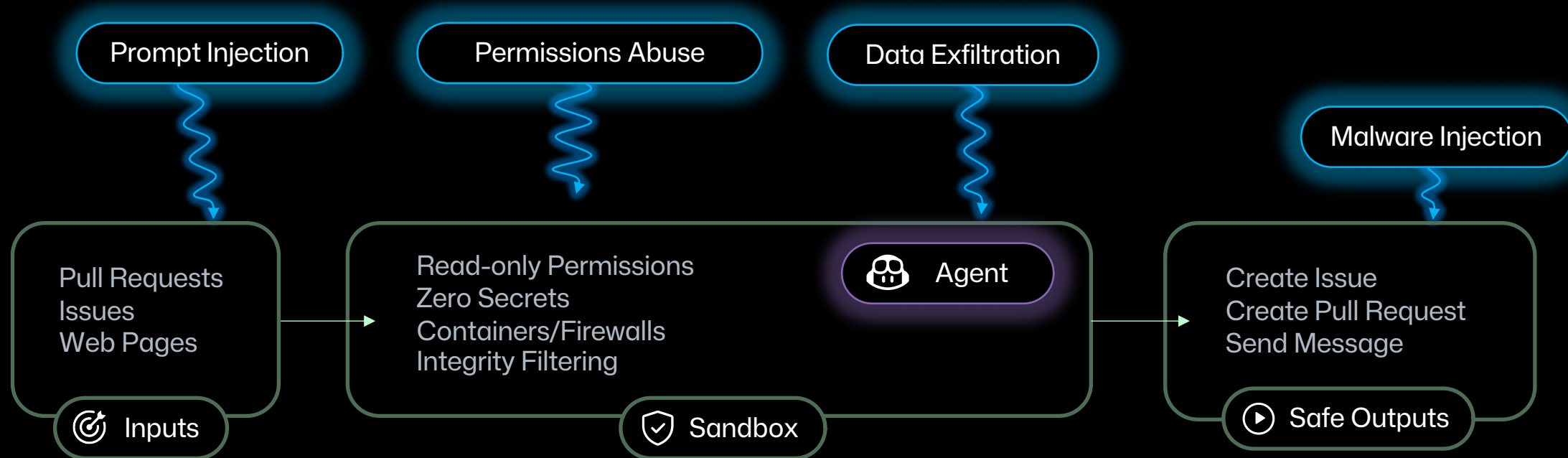
Agents can only reason about what's accessible.

All business critical MCPs must be **automatable!**



Agents are dangerous

A sandbox enforces what the agent can access, do, and affect.



Orchestrated Automation through Agentic Human Processes

issue-clarifier.md ×

.github > workflows > issue-clarifier.md > abc # Issue Clarifier

```
1 ---
2 on:           # Trigger: when to run
3   issues:
4     types: [opened]
5
6 permissions: read-all # Security: read-only by default
7
8 safe-outputs: # Allowed write operations
9   add-comment:
```

 Sandbox

```
10 ---
11 # Issue Clarifier
12
13 Analyze the current issue and ask for additional details
14 if the issue is unclear.
```

 Agent



mnkiefer opened 24 minutes ago

Please add better setup instructions.

Right now it's not clear how to get started, what prerequisites are needed, or what the expected workflow is.

Create sub-issue



github-actions bot 20 minutes ago – with [GitHub Actions](#)

Thanks for raising this! The request for better setup instructions is clear, but to write something accurate and useful, a few more details would help:

1. **What does this project do?** A brief description of the project's purpose would help frame the setup instructions appropriately.



mnkieferr / my-awesome-repo

Type to search



Code

Issues 2

Pull requests

Agents

Actions

Projects

Wiki

Security

Insights

Settings



my-awesome-repo Private

Watch 0

Fork 0

Star 0

main

2 Branches 0 Tags

Go to file

t



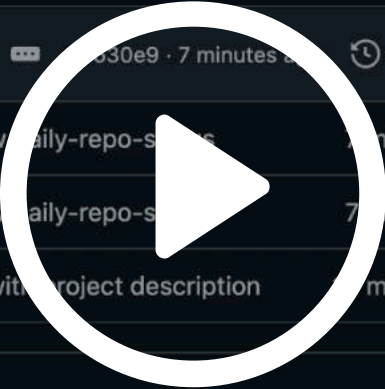
Code

About



mnkieferr Merge pull request #2 from mnkieferr/add-workflo... 330e9 · 7 minutes ago 3 Commits

- .github/workflows Add agentic workflow daily-repo-s... 7 minutes ago
- .gitattributes Add agentic workflow daily-repo-s... 7 minutes ago
- README.md Add initial README with project description 7 minutes ago



README

Welcome to my-awesome-repo

This is an awesome repo! 🐙

No description, website, or topics provided.

Readme

Activity

0 stars

0 watching

0 forks

Releases

No releases published

[Create a new release](#)

Packages

No packages published

[Publish your first package](#)

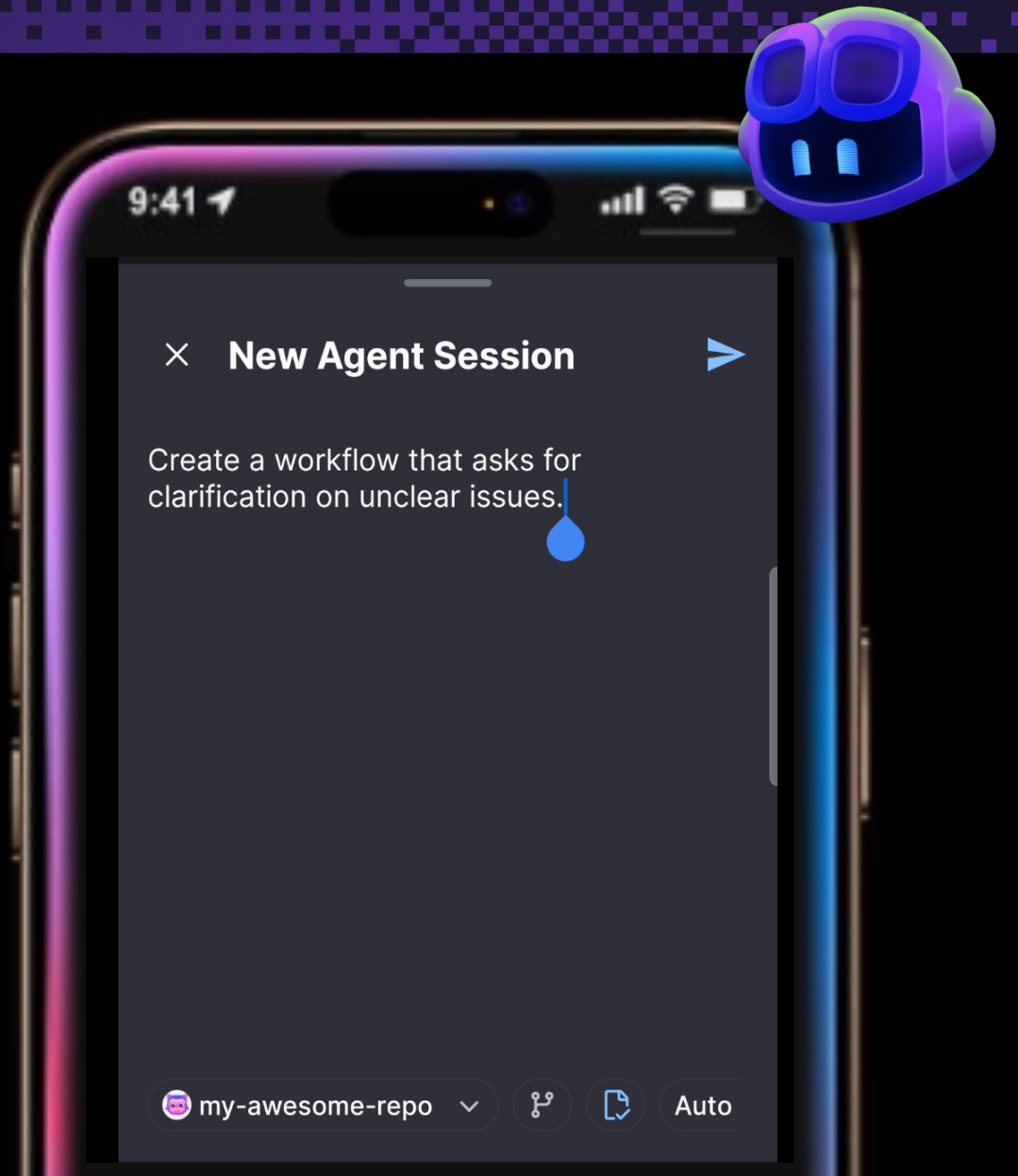
0:00 / 1:40



Intent-driven Automation through Agentic Authoring

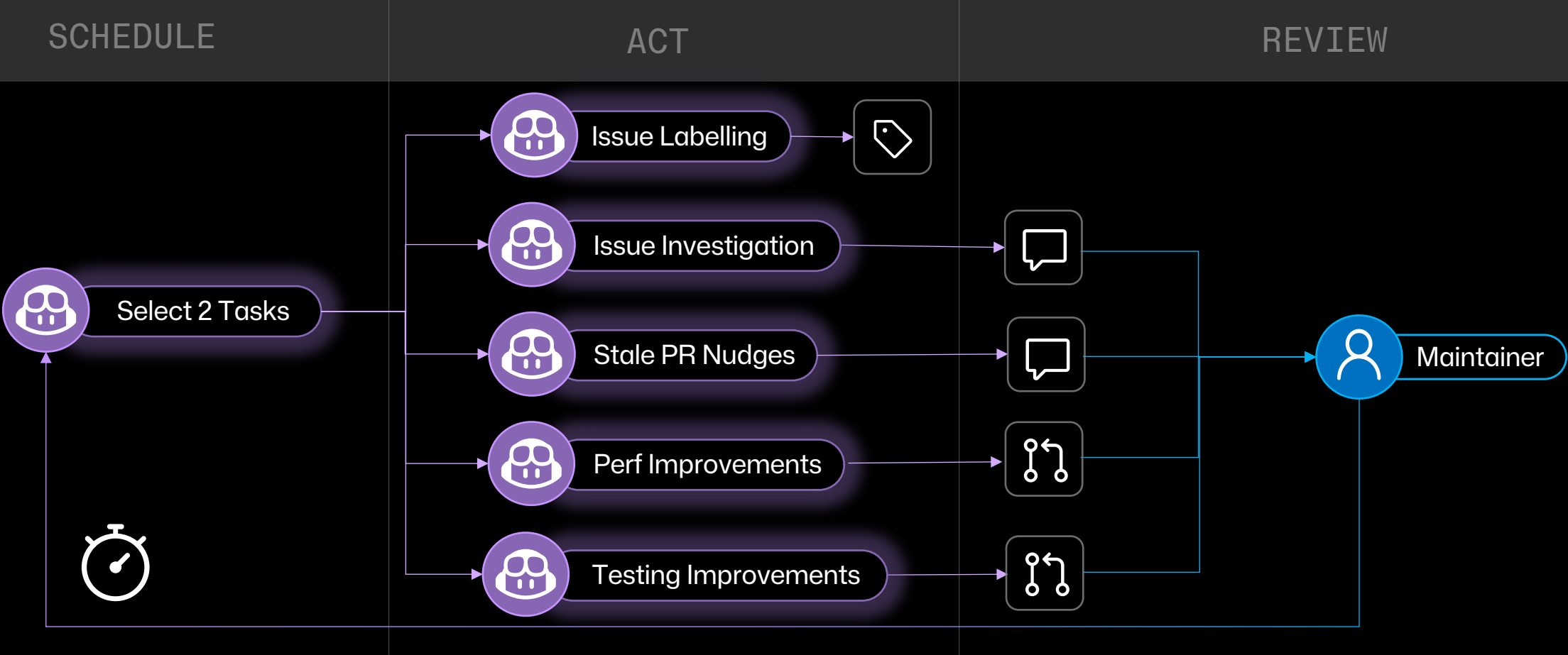
Write agents with the help of agents, iteratively.

- ✓ Configure your repository for GitHub Agentic Workflows
 - ✓ Create new workflows
 - ✓ Debug existing workflows
 - ✓ Optimize Token Usage
- 📄 Spec Driven Development



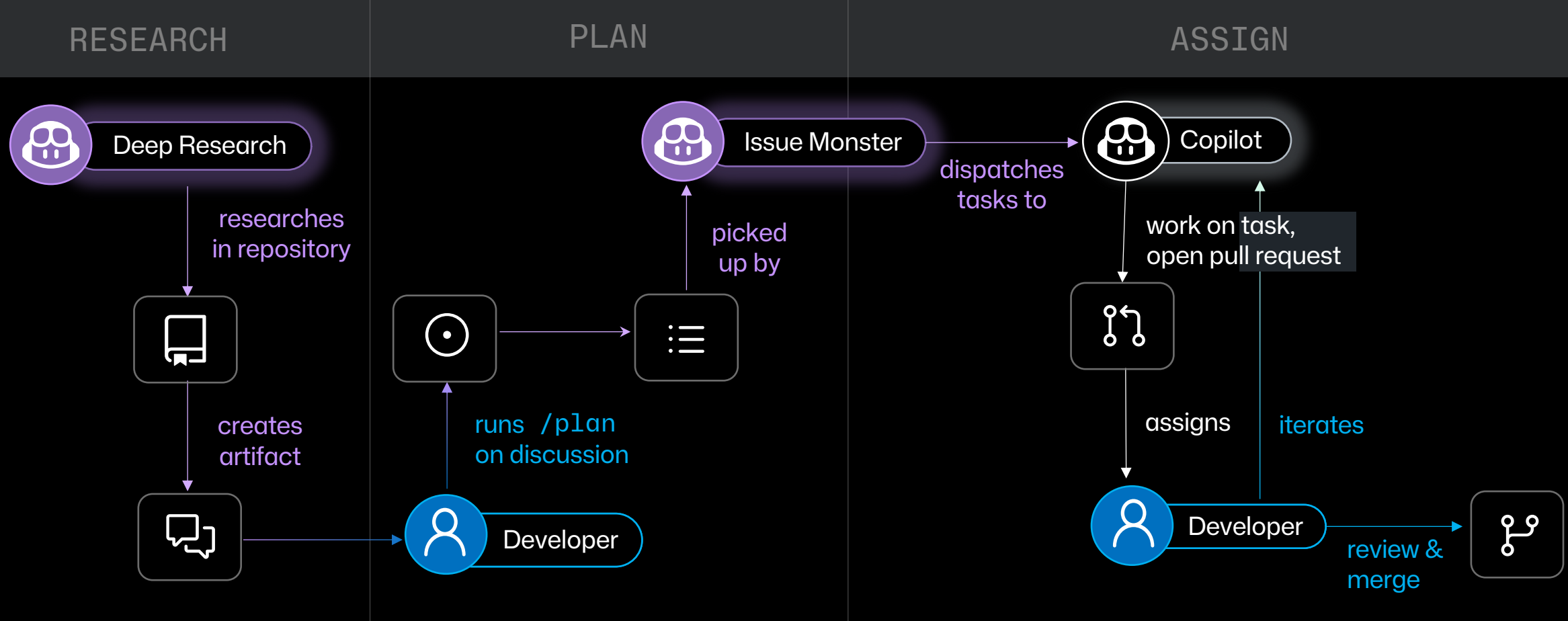
Repo Assist

Auto Maintenance Loop



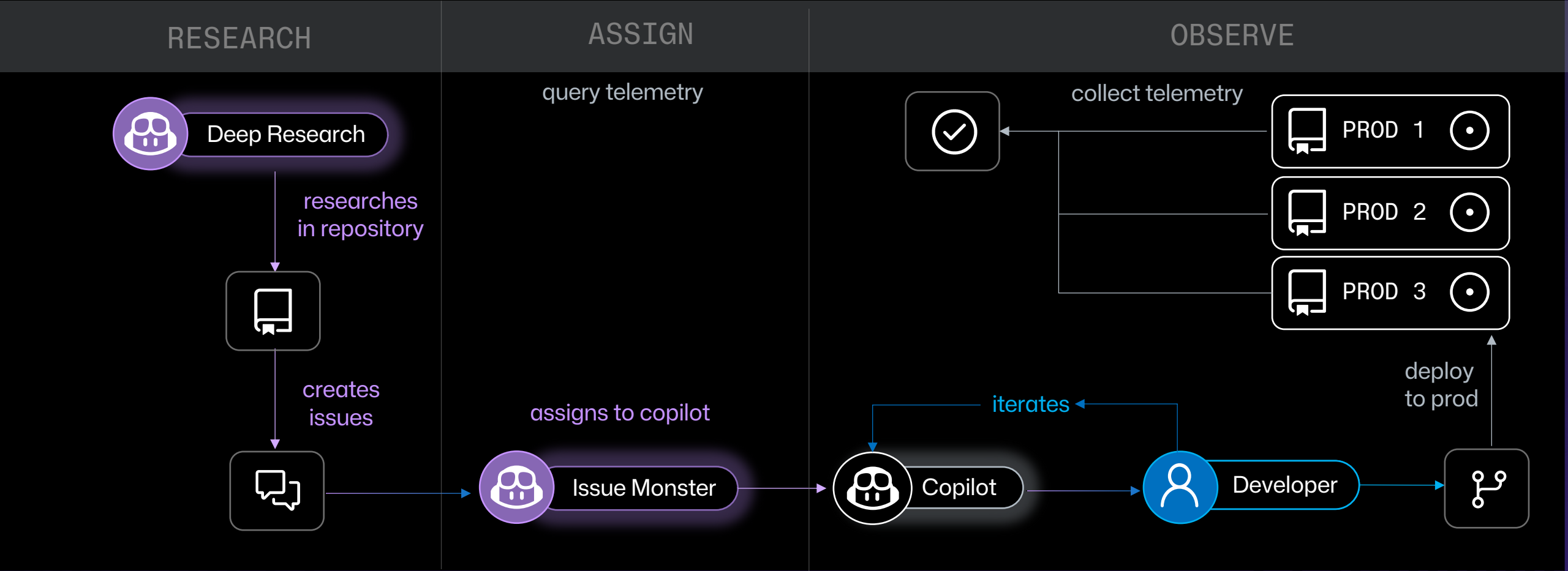
Research – Plan – Assign

Daily Test Improver, Daily Perf Improver, ...



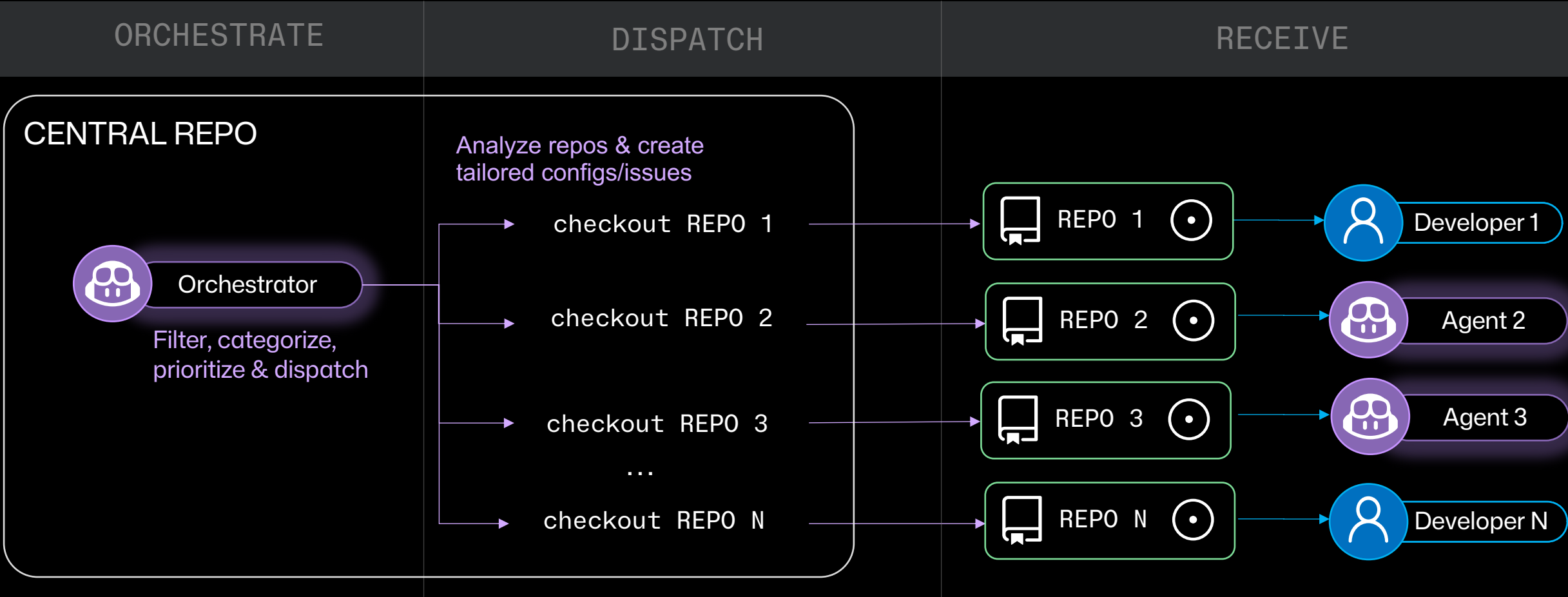
Research – Assign – Observe

Agentic Feedback Loop



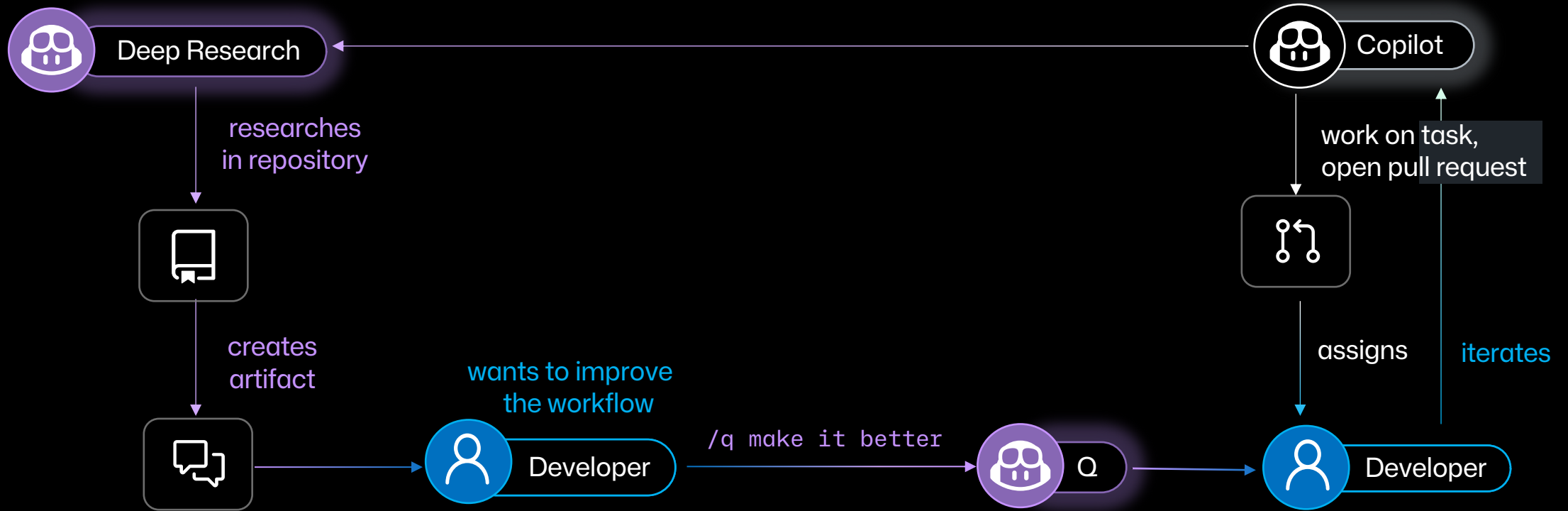
Central Repo Ops

Rolling out large scale operations



Q

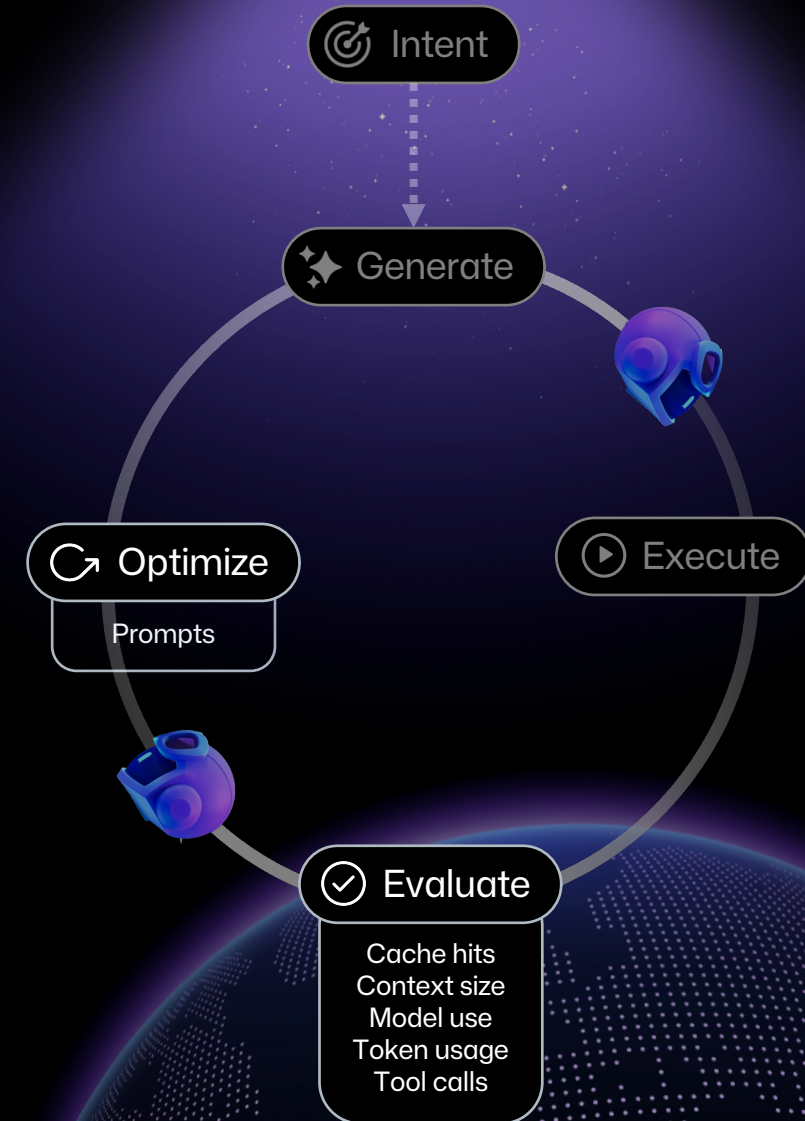
The Agent Improver /q



Cost Self-Optimization

Agentic engineers must always optimize for:

- ✓ Fewer tokens
- ✓ Smaller models
- ✓ Agentic → Deterministic
- ✓ Monolith Agent → Sub Agents



Token Usage Optimizations

Deterministic Compute / Inline Sub-Agents

```
daily-pr-summary.md ×
.github > workflows > ↓ daily-pr-summary.md > abc # Daily PR Summary
1 ---
2 on: daily
3 tools:
4 | github: pull_requests
5 safe-outputs:
6 | create-issue:
7 ---
8 # Daily PR Summary
9
10 Create an issue with the executive summary of the activity
11 in the repo yesterday.
12
```

```
daily-pr-summary.md ×
.github > workflows > ↓ daily-pr-summary.md > abc # Daily PR Summary
1 ---
2 on: daily
3 tools:
4 | github: pull_requests
5 safe-outputs:
6 | create-issue:
7 | steps: # deterministic compute
8 |   - run: gh pr list -after -1d > prs.json
9 |
10 # Daily PR Summary
11
12 (1) Summarize each PR in prs.json with the `pr-summary` subagent
13 (2) Create executive summary from PR summaries into an issue
14
15 ## agent: `pr-summary`
16 ---
17 models: haiku
18 ---
19 Create an executive summary of the PR.
20
```

 Deterministic

 Sub-Agent

Patterns

See our research for more useful design patterns.

gh.io/gh-aw

Welcome to Peli's Agent Factory

Jan 12, 2026



Don Syme



Peli de Halleux



Mara Kiefer

Welcome, welcome, WELCOME to Peli's Agent Factory!

Imagine a software repository where AI agents work alongside your team - not replacing developers, but handling the repetitive, time-consuming tasks that slow down collaboration and forward progress.

Peli's Agent Factory is our exploration of what happens when you take the design philosophy of **“let's create a new automated agentic workflow for that”** as the answer to almost every opportunity that arises! What happens when you **max out on automated agentic workflows** - when you make and use dozens of specialized, automated AI agentic workflows and use them in practice.



