

From Soloist to Symphony

A 10-minute journey through the hype and reality of multi-agent systems.

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The Case for a Single Agent

Source: Cognition AI (makers of Devin)

Context Engineering

The primary challenge. Splitting tasks breaks context.

Implicit Decisions

Conflicting decisions from multiple agents create chaos.

Best for: Sequential, context-dependent tasks (The Master Chef).

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The Case for a Multi-Agent Team

Source: Anthropic

Breadth-First Exploration

Excel at exploring many independent paths at once.

The Cost

This power is expensive—often 15x the tokens of a single agent.

Best for: Parallelizable tasks (The Detective Team).

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The 'Merge Conflict' Problem

Source: LangChain & Anthropic Insights

The Core Challenge: Shared Writes

Multi-agent systems are great for parallel reads (research), but struggle with parallel writes (coding).

The Analogy

Having multiple agents writing to the same codebase is like having multiple developers committing to the same branch without version control. You inevitably get merge conflicts.

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A Third Pattern: The Multi-Persona Agent

The practical middle ground: a single agent that wears different hats.

What is it?

A single, powerful agent that dynamically adopts different roles or personas by changing its system prompt.

The Power of Single-Agent

It avoids the 'Context Engineering' problem because it all happens in one continuous session.

The Feel of Multi-Agent

It provides specialized skills for different tasks, just like a team would.

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So, What's the Difference?

Multi-Persona (The Role-Player) vs. Multi-Agent (The Committee)

Multi-Persona

- Human is the bus
- Human is the orchestrator
- Simple state (chat context)
- Sequential execution

Multi-Agent

- Agents talk to each other (A2A)
- Autonomous orchestration
- Complex, shared state
- Parallel execution

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A Hybrid Solution: Best of Both Worlds

A Sophisticated Hybrid Workflow

Phase 1: Research (Multi-Agent)

- Deploy a team of parallel agents
- Breadth-first exploration
- Goal: Generate multiple options

Phase 2: Development (Multi-Persona)

- Select the best path
- Use a human-driven framework like BMAD + Windsurf
- Goal: Sequential execution with context

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Live Demo: BMAD + Windsurf

A Multi-Persona Powerhouse

Key Insight

BMAD provides the personas; Windsurf provides the cockpit to control them.

Mechanism

Windsurf's @ mentions allow you to seamlessly switch personas within a single, shared context.

1. Run ``@pm Write a user story for a login button.``
2. After the story appears, run ``@dev Implement the user story above.``

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Key Takeaways

Choose Your Pattern Intentionally

Multi-Agent (The Committee): High power, high cost. Best for parallel research. Beware the "merge conflict."

Multi-Persona (The Role-Player): The practical sweet spot, enabled by tools like Windsurf. Gives you specialized skills while keeping you in control.

The Future is Hybrid: Use parallel agents for exploration and sequential, persona-driven agents for execution.

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Q & A

Thank you! Feel free to connect.



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