

How does Claude Code *work*?

...and what can we learn from it.

Dominik Grusemann

Claude Code for Everyone — Munich

23 March 2026



Dominik Grusemann

AI Product Engineer · Co-Founder, Marbles AI

Ex-CTO Chatchamp (acquired 2022)



“

*Any sufficiently advanced technology is indistinguishable from **magic**.*

— Arthur C. Clarke, 1973



1

Let's ask Claude Code.

live conversation

2

What controls it?



2

SYSTEM PROMPT — EXCERPT

```
# Instructions
You are an interactive agent that
helps users with software engineering tasks.

# Tone and style
Your responses should be short
and concise.

# Using your tools
You have access to the following tools:
```

That's it. Just English.

2

SYSTEM PROMPT — EXCERPT

```
# Instructions
You are an interactive agent that
helps users with software engineering tasks.

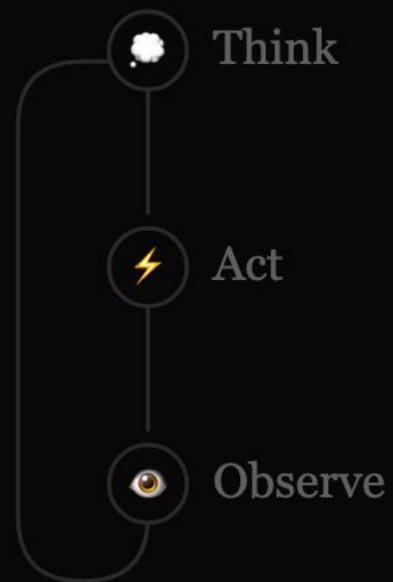
# Tone and style
Your responses should be short
and concise.

# Using your tools
To read files use Read instead of cat.
To edit files use Edit instead of sed.
```

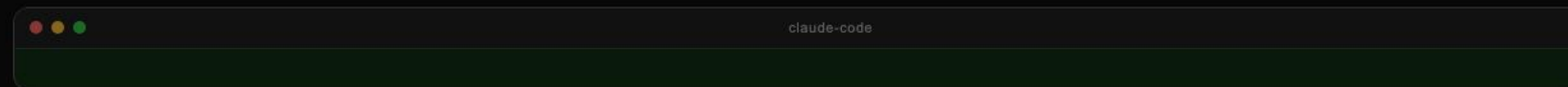
*Use the right tool and the right **system prompt** for the job.*

3

The Agentic Loop

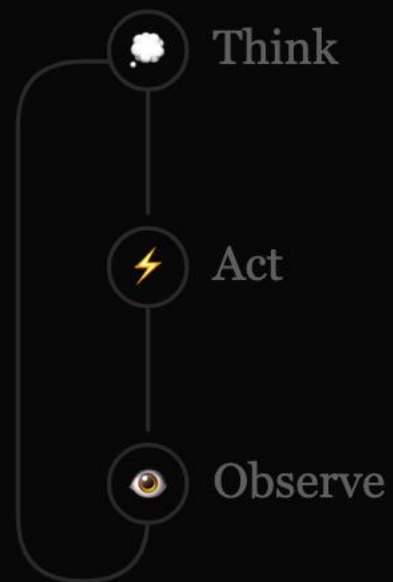


Available tools `Read File` `Write File`



3

The Agentic Loop

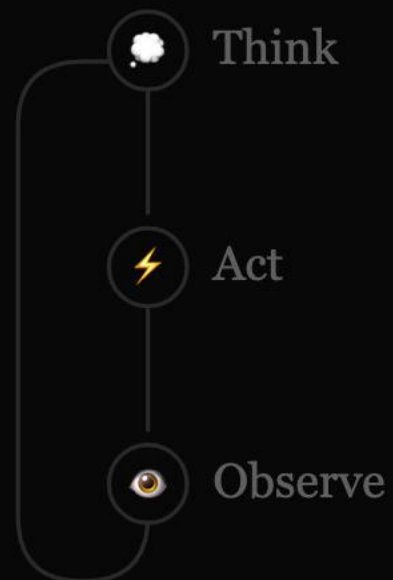


Available tools `Read File` `Write File`

```
> Create slide 7 fo
```

3

The Agentic Loop

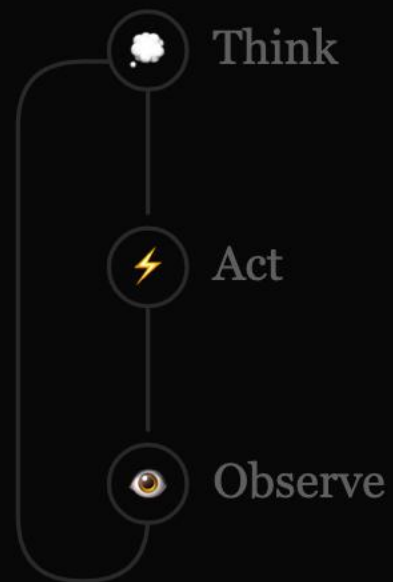


Available tools `Read File` `Write File`

> Create slide 7 for the meetup

3

The Agentic Loop

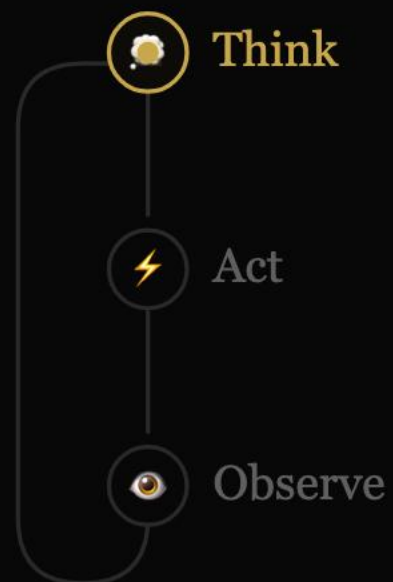


Available tools `Read File` `Write File`

```
> Create slide 7 for the meetup
```

3

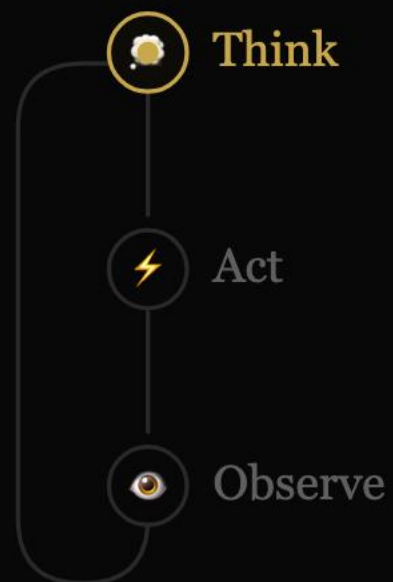
The Agentic Loop



```
Available tools Read File Write File  
  
claude-code  
  
> Create slide 7 for the meetup  
  
thinking I need to read the cont
```

3

The Agentic Loop



```
Available tools Read File Write File  
  
claude-code  
  
> Create slide 7 for the meetup  
  
thinking I need to read the content file to understand what slide 7 should show.
```

3

The Agentic Loop



Available tools `Read File` `Write File`

```
> Create slide 7 for the meetup
```

```
thinking I need to read the content file to understand what slide 7 should show.
```

```
tool: Read("content/06-agentic-1
```

3

The Agentic Loop



Available tools `Read File` `Write File`

```
> Create slide 7 for the meetup
```

```
thinking I need to read the content file to understand what slide 7 should show.
```

```
tool: Read("content/06-agentic-loop.md")
```

3

The Agentic Loop



Available tools: `Read File` `Write File`

```
> Create slide 7 for the meetup
```

```
thinking: I need to read the content file to understand what slide 7 should show.
```

```
  tool: Read("content/06-agentic-loop.md")
```

```
- The slide should explain the
```

3

The Agentic Loop



Available tools: `Read File` `Write File`

```
> Create slide 7 for the meetup
```

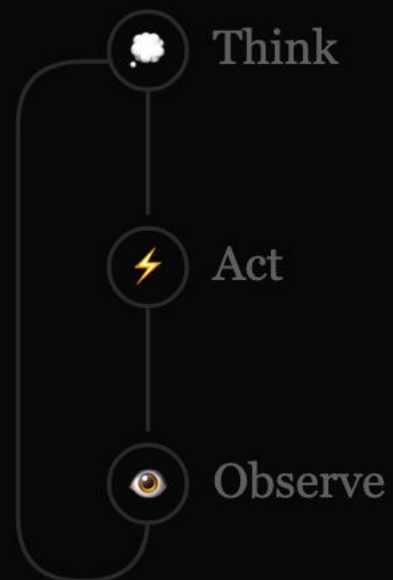
```
thinking: I need to read the content file to understand what slide 7 should show.
```

```
tool: Read("content/06-agentic-loop.md")
```

```
- The slide should explain the agentic loop using a real example.
```

3

The Agentic Loop



Available tools `Read File` `Write File`

```
> Create slide 7 for the meetup
```

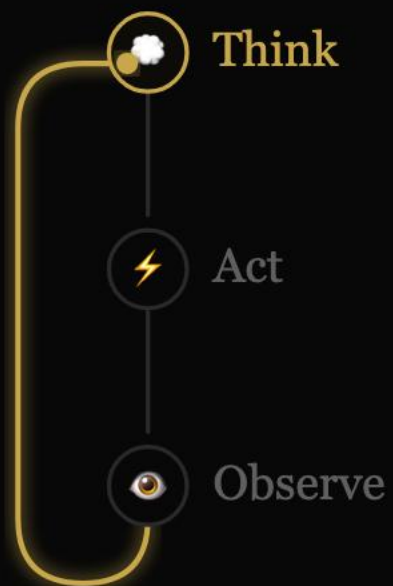
```
thinking I need to read the content file to understand what slide 7 should show.
```

```
tool: Read("content/06-agentic-loop.md")
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```
- The slide should explain the agentic loop using a real example.
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The Agentic Loop



```
Available tools: Read File Write File

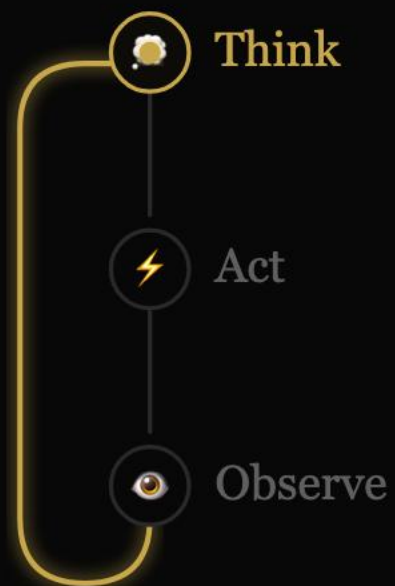
> Create slide 7 for the meetup

thinking I need to read the content file to understand what slide 7 should show.
  tool: Read("content/06-agentic-loop.md")
- The slide should explain the agentic loop using a real example.

thinking I need to match the s
```

3

The Agentic Loop



```
Available tools: Read File Write File

> Create slide 7 for the meetup

thinking I need to read the content file to understand what slide 7 should show.
  tool: Read("content/06-agentic-loop.md")
- The slide should explain the agentic loop using a real example.

thinking I need to match the style of existing slides.
```

3

The Agentic Loop



Available tools `Read File` `Write File`

```
> Create slide 7 for the meetup
```

```
thinking: I need to read the content file to understand what slide 7 should show.
```

```
tool: Read("content/06-agentic-loop.md")
```

```
- The slide should explain the agentic loop using a real example.
```

```
thinking: I need to match the style of existing slides.
```

```
tool: Read("slides/06-context-win
```


1 The Harness

Claude Code is only a small harness on top of an LLM. The magic is in the model.

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2 The System Prompt

Use the right tool for the task. Adapt the prompt to the task at hand.

1 The Harness

Claude Code is only a small harness on top of an LLM. The magic is in the model.

2 The System Prompt

Use the right tool for the task. Adapt the prompt to the task at hand.

3 The Agentic Loop

Think what the model can do best. Give it the right tools.

Thank you. Questions?



LINKEDIN



THIS TALK

Dominik Grusemann · Marbles AI

SOURCES

Claude (Code)

claude.com/download

Claude Code System Prompt

cchistory.mariozchner.at