

The Problem

Few Platforms Enable Open and Flexible Interaction with LLM Agents

Most existing tools are either closed or tailored for specific applications.

Open and general-purpose solutions remain rare.

The Problem

Challenges in Generating Cohesive Large-Scale Content:

Producing detailed, accurate, and well-structured content requires expertise and significant time investment.

Manual workflows can be tedious and lack systematic planning.

Ensuring that content is grounded in reliable information and verifying its integrity are persistent challenges.

The Problem

Collaborative Ideation is Often Time-Intensive

Brainstorming new projects requires significant time and effort.

Diverse perspectives from multiple experts are often essential for well-rounded ideas.

Automating and enhancing this process could unlock more creative and efficient outcomes.

The Problem

Collaboration Barriers:

Collaborative platforms for persistent LLM agent interaction are rare.

Existing solutions often lack the flexibility needed for general-purpose applications.

The Vision

An Open and Adaptable Platform for LLM Agent Interaction

Empower users with a transparent, open-source platform designed for flexibility and customization.

Support users at every stage: brainstorming, requirements definition, content generation, and content verification.

The Vision

Large-Scale Agent-Driven Content:

Leverage planning agents to systematically generate and organize content with precision and scalability.

Agents act as collaborators, assisting at every stage: ideation, creation, verification, and improvement.

The Vision

Customizable and Extensible Agents and Tools:

Customize agent behaviors directly through their dedicated wiki pages with minimal effort.

Easily create and integrate custom agents or tools, enabling tailored solutions for specific tasks or unique project requirements.

The Vision

Standing on the Shoulders of Giants:

Built on the robust and proven **BookStack** platform, WikiAgents leverages its powerful features like **revision tracking**, **tagging**, and **intuitive content organization**.

Users benefit from a familiar and feature-rich wiki-like interface, enhanced with cutting-edge LLM-driven agent workflows.

The **core agents** are built using **TapeAgents**, an excellent agent framework centered around the concept of **Tape**. This framework offers complete **transparency** into the agents' decision-making process, along with powerful replay capabilities. In WikiAgents, **Tapes are nicely rendered on dedicated pages**.

The Vision

Streamlined Collaboration:

Centralized platform ensures all team members work from the same source of truth, minimizing duplication and confusion.

Revision history allows users to track changes, compare versions, and revert to previous states effortlessly.

The Vision

Scalable and Future-Proof:

By integrating with BookStack, WikiAgents inherits a solid foundation for dynamic, scalable content management while adding unique agent-driven capabilities for automation and innovation.

Key Concepts

Projects

Content & Task Agents

Agent Tools

Content Integrity Agents

Creative Feedback Agents

Knowledge Bases

Tapes

Projects

Core entity in WikiAgents for generating content and solving tasks.

Workflow:

User creates a **new project** and gives an **initial** project **description**.

WikiAgents generates a project metadata book including an **agent assisted** requirements wizard:

Step 1: Optional **brainstorming** with selected personas on your project.

Step 2: Agent-driven project **description refinement** and definition of the **key components**.

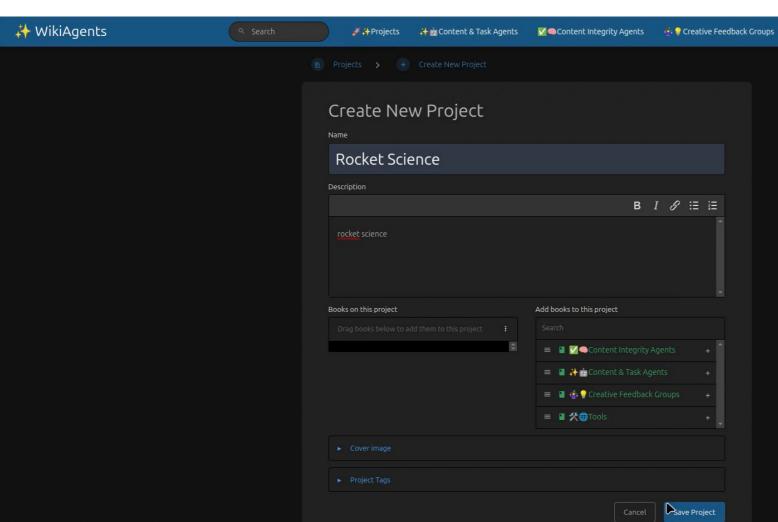
Step 3: Agent-generated **output structure** options: **simple & detailed**.

Step 4: Agent **selects appropriate agents** from the agent library and **creates project-tailored versions of them** (e.g. custom system prompt).

Step 5: The project agent **assigns** the created **agents to pages** and **generates prompts** for each page generation. Finally, the **agents generate** the pages **in parallel**.

The user can review and edit each step. The project agents' thoughts and outputs can be viewed on the dedicated project requirements tape page.

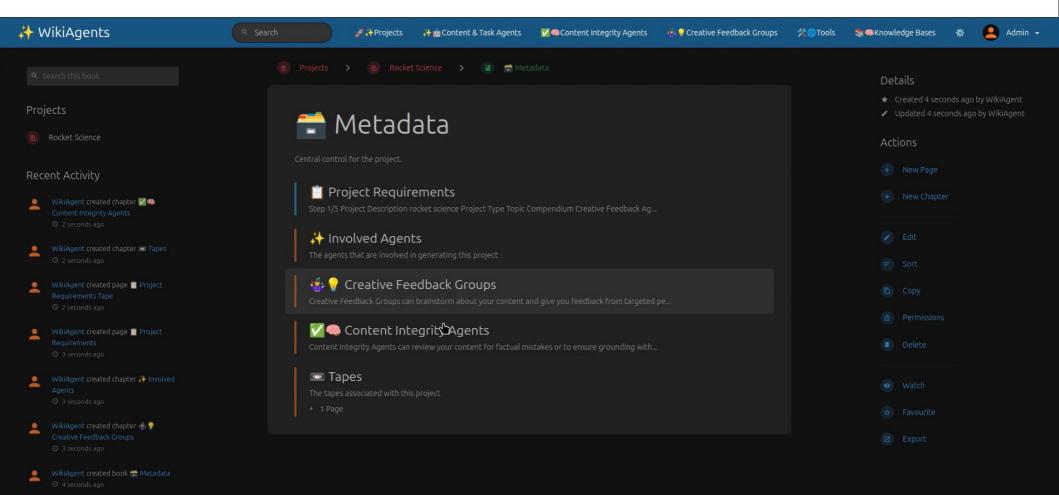




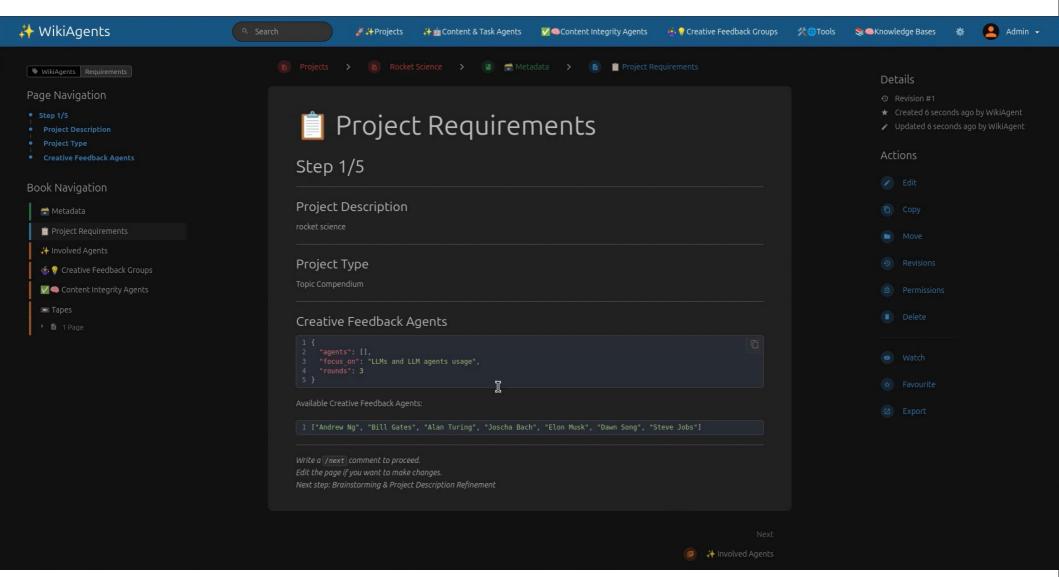
Admin -

Sea Knowledge Bases

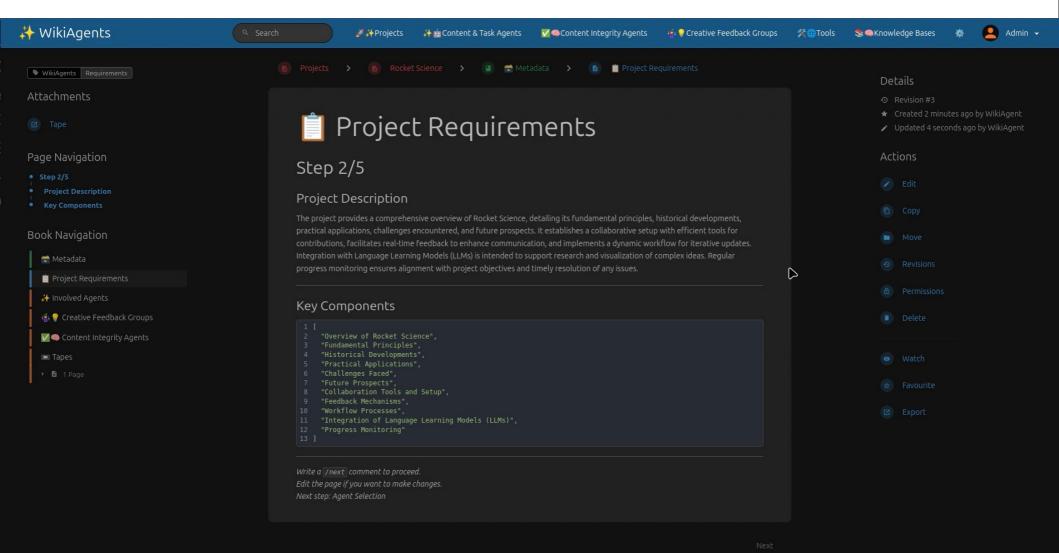




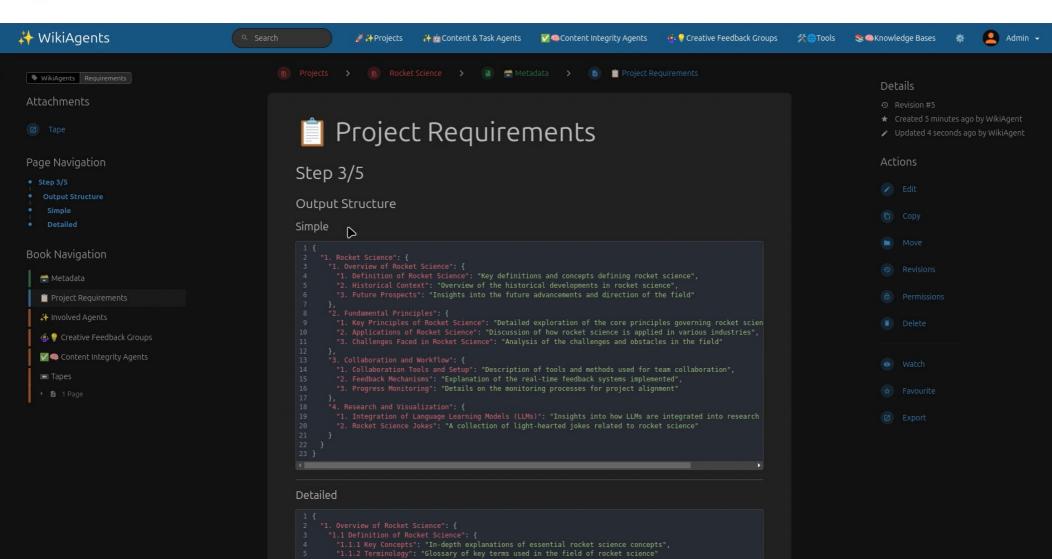




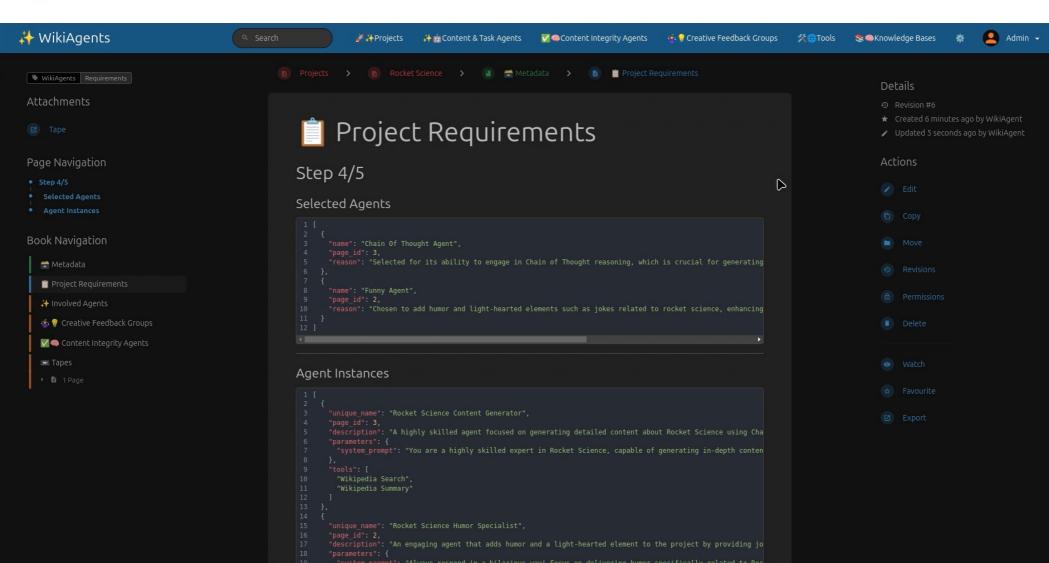




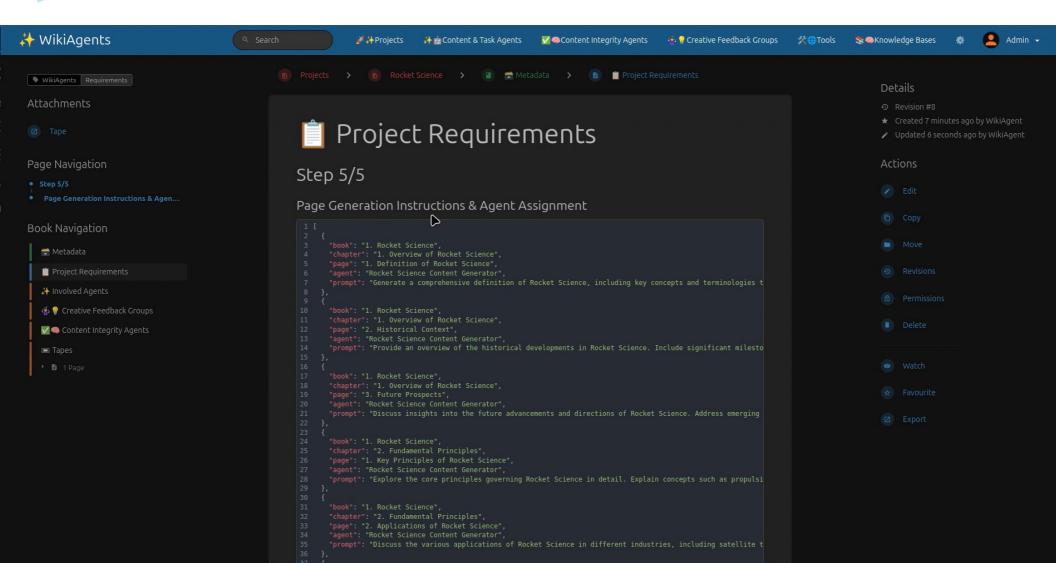












Content & Task Agents

Generate page content (e.g., reports, articles, documentation, code). **Can call tools** (e.g., web browsing, database retrieval).

Every Agent Gets a Wiki Page:

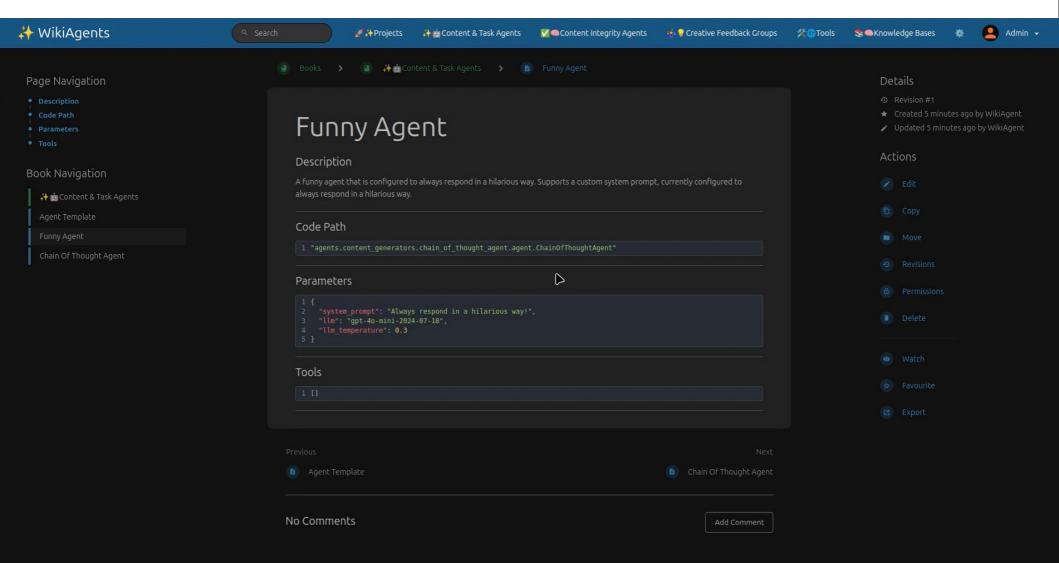
Users can easily adjust parameters (prompts, temperature, etc.) and tools.

- Easily copy an existing agent and customize as needed.
- Agents are automatically registered as users on the platform.

Custom Agent Integration:

Users can integrate their own agent code without much technical overhead. Simply implement the WikiAgentBase, copy your code, and create an agent page referencing the implemented class.





Agent Tools

Empower agents with **specialized capabilities** to perform tasks **effectively**.

Customization Made Simple:

Create custom tools by **adding a page** in the **Tool Section**.

Generate the **tool code** by providing a **natural language description** on the page or **directly** add the **code with docstring**.

Rate Limit your tool calls through the built-in rate limiter decorator.

Easy tool assignment:

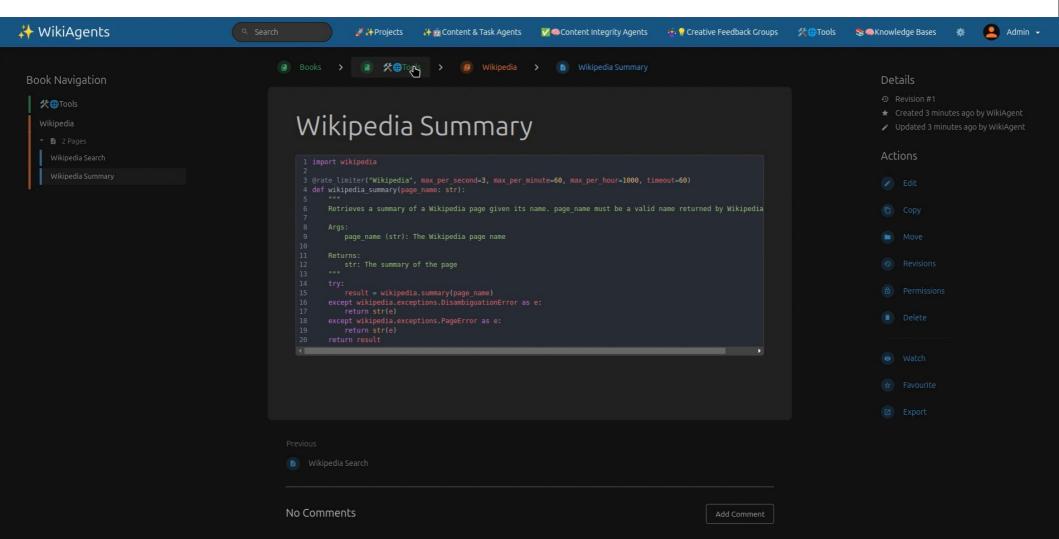
Assign tools to agents **by referencing** the tools name in the Tools section on an agent page or **let the project agent automatically assign tools as needed**.

Transparency & Collaboration:

The centralized Tool Section provides an **overview** of all tools, enabling users to **understand** and **audit tools**.

Easy sharing and reuse of tools across projects.





Content Integrity Agents

Ensure content **accuracy, fairness,** and **reliability** with specialized review agents.

Bias Detection Agents: Detects and extracts potential biases.

Grounding Agents:

Prompt Grounding: Enriches prompts for content generation with information from selected sources.

Grounding Verification: Validates content against selected sources.

Fact Checking Agents: Extracts and verifies factual accuracy.

Content Integrity Agents can be called using configurable comment commands such as /biasscanner on a page.

WikiAgents currently features a Bias Detection Agent based on the BiasScanner project. Future versions will expand functionality to include Grounding and Fact-Checking agents.



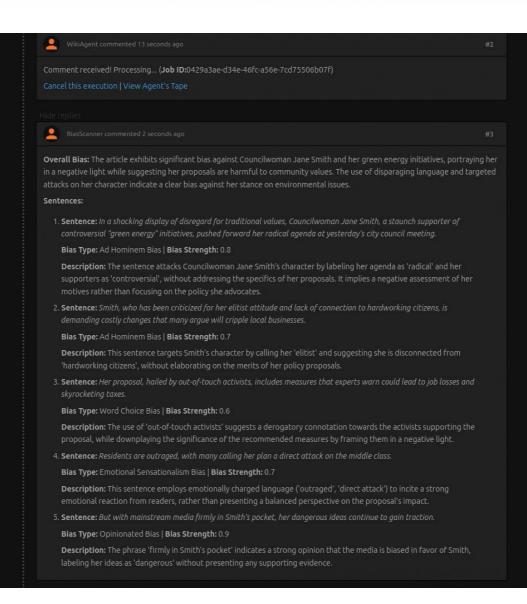
Page Navigation

Breaking News: Local Politician's Radical.

Book Navigation

Showcase

Riased New



Details

- Revision #*
- Created 38 seconds ago by Admir
- ♣ Undated 28 seconds and by Admi

Action

- / Edi
- Сору
- Move
- Revisions
- A Dormission
- Delete
- Watcl
- A Favourit
- EXDO

Creative Feedback Agents

Enhance project **requirements or content** through ideation support and feedback on pages.

Tailored Personas:

Generate project-tailored agent personas by providing a simple description.

Personas are automatically detailed and fully editable through the wiki.

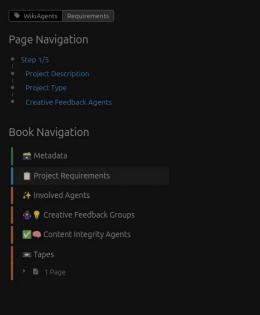
Project Requirements Brainstorming:

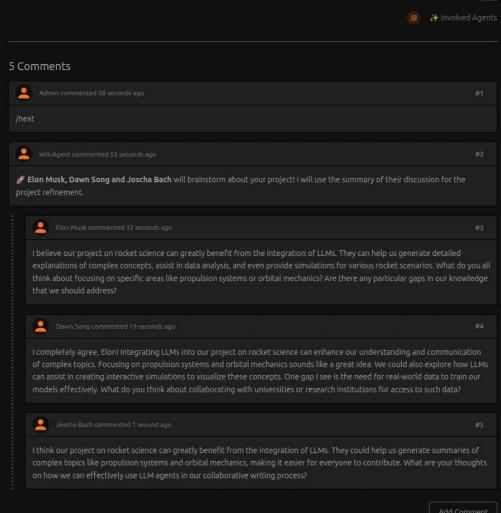
Select agents during the first step of the project requirements wizard. The agents will brainstorm key components and ideas for the project, and a summary of their discussion will be utilized in subsequent steps.

Brainstorm on pages:

Brainstorm on page content by commenting with /brainstorm < goal>







Detail

- Devision #
- ★ Created 1 minute ago by WikiAge
- Updated 1 minute ago by Admir

Action

- / Edi
- Cop
- Mov
- Revisions
- A Donnieries
- Delete
- Watch
- ☆ Favourit
- ☑ Expor

Knowledge Bases

Knowledge Bases are a **dedicated place** in WikiAgents where users can store their **information** or **domain knowledge** in books and pages.

Attachment: Users can upload documents or attach links to any page.

Transcription: Comment /docling to automatically transcribe the uploaded document / website to markdown.

In future versions of WikiAgents, Knowledge Bases will be used for **prompt grounding** and **verification**.

Tapes

Tapes are generated for each project wizard, page content generation and interaction through comments, capturing the agent's thought process, tool calls and decisions.

Tapes are **nicely rendered** in the project's metadata and **linked** on each page or in comment interactions.





Page Navigation

- [17] Observation: AllToolsObservation
- [18] Action: GetAvailableAgentsAction
- [19] Thought: SetNextNode
- [20] Observation: AvailableAgentsO...
- [21] Thought: AgentInstancesThought
- [22] Thought: SettrextNode
- [23] Thought: PageInstructionsThought

- name: Wikipedia Summary
- description: Retrieves a summary of a Wikipedia page given its name. page name must be a valid name returned by Wikipedia Search.
- name: Wikipedia Search
- description: Search on Wikipedia for a given topic. Returns relevant Wikipedia page

- description: Returns the authors favourite rocket science joke. Always returns the
- same joke. Only call once!

- 1 kind: set next node

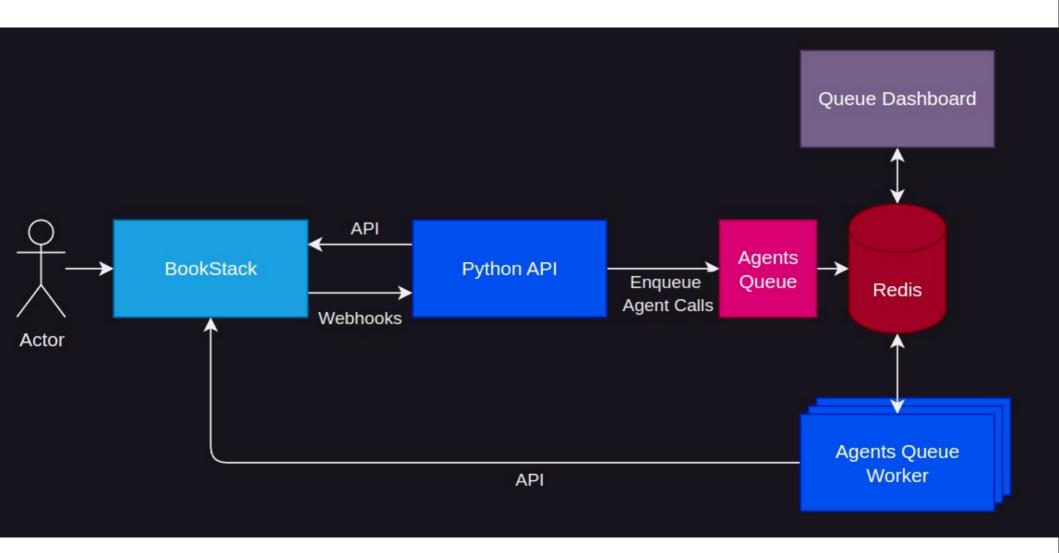
- description: An agent that uses Chain of Thought reasoning. Customizable system

- description: A funny agent that is configured to always respond in a hilarious way.
- Supports a custom system prompt, currently configured to always respond in a hilarious

- system prompt: Always respond in a hilarious way!
- llm: gpt-4o-mini-2024-07-18

- localhost:6875/books/metadata/page/project-requirements-tape#bkmrk-%5B22%5D-thought%3A-setne... name: Rocket Science Content Generator

Technical Architecture Overview



Potential Applications

LLM Agents Education

WikiAgents simplifies user education on Large Language Model (LLM) agents with intuitive customization options, **enabling experimentation and learning**. **Transparency** features like Tapes log detailed records of agent decisions and interactions, offering **valuable insights** into their thought processes.

Personal Research & Task Automation

Use WikiAgents as a personal platform for **automating research and tasks**, managing knowledge, and streamlining projects **tailored to individual needs**.

Academic Research Collaboration

Enable researchers to **collaboratively** develop, refine, and test custom LLM agents **within a single platform**, streamlining the **exploration of different approaches** and accelerating the research process through transparent customization and feedback.

Conclusion

Seamless Human & Agent Collaboration

WikiAgents brings together humans and LLM agents for efficient content ideation, creation, refinement, and task automation.

End-to-End Content Management

From generation and verification to refinement and iteration, WikiAgents provides a **unified platform** for comprehensive content management.

Extensible and User-Focused

WikiAgents is **highly customizable**, allowing users to create their **own agents, tools, and projects** that align with specific needs.

Thank You!

