Glossary of Terms

Agent:

An LLM (Large Language Model) equipped with tools and memory, operating with a specific objective in a loop. An agent can perform tasks, interact with other agents, and utilize external tools and memory systems to achieve its goals.

Swarms:

A group of more than two agents working together and communicating to accomplish a shared objective. Swarms enable complex, collaborative tasks that leverage the strengths of multiple agents.

Tool:

A Python function that is converted into a function call, allowing agents to perform specific actions or access external resources. Tools enhance the capabilities of agents by providing specialized functionalities.

Memory System:

A system for managing information retrieval and storage, often implemented as a Retrieval-Augmented Generation (RAG) system or a memory vector database. Memory systems enable agents to recall previous interactions, store new information, and improve decision-making based on historical data.

LLM (Large Language Model):

A type of AI model designed to understand and generate human-like text. LLMs, such as GPT-3 or GPT-4, are used as the core computational engine for agents.

System Prompt:

A predefined prompt that sets the context and instructions for an agent's task. The system prompt guides the agent's behavior and response generation.

Max Loops:

The maximum number of iterations an agent will perform to complete its task. This parameter helps control the extent of an agent's processing and ensures tasks are completed efficiently.

Dashboard:

A user interface that provides real-time monitoring and control over the agents and their activities. Dashboards can display agent status, logs, and performance metrics.

Streaming On:

A setting that enables agents to stream their output incrementally, providing real-time feedback as they process tasks. This feature is useful for monitoring progress and making adjustments on the fly.

Verbose:

A setting that controls the level of detail in an agent's output and logging. When verbose mode is enabled, the agent provides more detailed information about its operations and decisions.

Multi-modal:

The capability of an agent to process and integrate multiple types of data, such as text, images, and audio. Multi-modal agents can handle more complex tasks that require diverse inputs.

Autosave:

A feature that automatically saves the agent's state and progress at regular intervals. Autosave helps prevent data loss and allows for recovery in case of interruptions.

Flow:

The predefined sequence in which agents in a swarm interact and process tasks. The flow ensures that each agent's output is appropriately passed to the next agent, facilitating coordinated efforts.

Long Term Memory:

A component of the memory system that retains information over extended periods, enabling agents to recall and utilize past interactions and experiences.

Output Schema:

A structured format for the output generated by agents, often defined using data models like Pydantic's BaseModel. Output schemas ensure consistency and clarity in the information produced by agents.

By understanding these terms, you can effectively build and orchestrate agents and swarms, leveraging their capabilities to perform complex, collaborative tasks.