GameAI

AI Module Integration
for Game Engines

GAME MANAGER : GameObject

AI Manager

The GameManager is attached to an empty game object and contains the main systems.

AI MANAGER : MonoBehavior

AICharacters[]

AIAgents[]

Extractor

Scheduler

The AIManager functions as the main component for AI controlling. It contains the main systems and all agents are registered here.

SCHEDULER

Group AI

Strategy()

Character AI

MakeDecision()

Execute()

The scheduler will be responsible for managing CPU time and trigger AI tasks when needed.
It works with ingame time.

AI AGENT

MakeDecision()

AI Agents inherit all the logic necessary to make a decision based on the input data from the extractor.

Each decision-making will lead to an ACTION that is to be performed.

AI CHARACTER : MonoBehavior

GetDynamicKnowledge()

GetStaticKnowledge()

AI AgentID

Attached to each AI controlled character the AICharacter-Script will function as an interface for the AIManager.

AI Characters will register themselves at the AI Manager with an AI AgentID. This id is directly connected to the a previously (in the AI Builder Interface) created Layered AI Logic.

Besides active triggering the AI Agent exposes the game object`s properties to the AIManager and its subsystems.

AI ACTOR : MonoBehavior

Execute()

The AIActor is attached to the controlled characters. Developers can implement how they want to react to the decisions made by the AIAgent.

Animation

NavMeshAgent

Collider

AudioSource

Apart from the AI there are other subsystems attached to each AI controlled character. Those are used for pathfinding, animation, sound and other behaviors.