Abstract

One of the important things in order to make close combat game more naturally is behavior selection and what action to do next. Team coordination among non-player characters can create a deeper sense of immersion in real-time games by allowing characters to work together to produce better tactics and strategy. Characters that compute the behavior selection by itself could be unsuccessful to accomplish team objective.

This research implements Fuzzy Coordinator to determine how the NPC should behave. The team Leader as a coordinator analyzes the health of NPC members and the opponent’s health in order to decide what behavior will coordinate to the team. However, even though there is a leader in the team, NPC still be autonomous in certain condition. The NPC still has to consider its health to decide what action should be taken. The expected result is an effective battle and a faster tasks execution by NPCs.

These studies use three simulation scenarios with fifty experiments for each scenario. The maximum result of 76% win was achieved by the NPC team when using the fuzzy coordinator while the opponent NPC team does not.

Keyword: Behavior selection, Non Player Character, Fuzzy Coordinator, Leader, Health
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