

# A.I. Editor

(Requires Fuzzy AI Rule Generator Addon)

Fuzzy AI Rule Generator (or simply Fuzzy AI) is a tool designed to emulate human cognitive thinking. It provides user friendly layouts to design an instruction set that makes the character behave much like a real player would.

This add-on uses [Fuzzy Logic](#) to evaluate the information of the scene and calculate the desirability of each given action, translating the AI decisions directly into user input. In other words: the AI doesn't cheat, it uses the same input system used by the player.

Fuzzy AI uses [AI4Unity](#) library, a port of [AForge.Net](#) created by David Guitierrez that works *out of the box* in Unity. This free library is used for translating the information of the scene into [fuzzy values](#) that will be used by the AI rules to define the character behavior.

Currently Fuzzy AI only works as an extension of UFE, but we hope that soon we can expand it to be used in other projects. Since its **open source** however, those with experience are free to try apply the current state of development into their own ideologies.

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Open an existing instruction file or create a new one. For this introduction we will be using several instructions from the folder below. These instructions are already assigned to the demo characters.

Template Location: `.\UFE Addons\Templates`

Inherits from: `.\UFE Addons\Runtime\AIInfo.cs`

To create a new A.I. instruction file, in the project window click on Create → U.F.E. → A.I. File.

Instruction files needs to be attached to Character Info → AI Instructions.

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The screenshot shows a dark-themed configuration window for an AI named "GRAPPLER (AGGRESSIVE)". At the top, there's a header with the name and a question mark icon. Below this, there's a section for "Instructions Name" with a text input field containing "Grappler (Aggressive)". Underneath, there are two checkboxes: "Show Debug Info" and "Reaction Weights", both of which are checked. The main section is titled "Predefined Rules" and contains several sub-sections, each with a title, a checkbox, and various sliders or dropdowns. The sub-sections are: "Auto Move" (checkbox checked, "Rest On Location" checked, "Preferable Distance" dropdown set to "Very Close", "Move Frequency" slider set to 3), "Auto Jump" (checkbox checked, "Jump Back Frequency" slider set to 1, "Jump Straight Frequency" slider set to 2, "Jump Forward Frequency" slider set to 2), "Auto Attack" (checkbox checked, "Use Range Filters" checked, "Attack Frequency" slider set to 5), and "Auto Block" (checkbox checked, "Use Hit Type Filters" checked, "Stand Block Accuracy" slider set to 6, "Crouch Block Accuracy" slider set to 6, "Jump Block Frequency" slider set to 0). At the bottom of the "Predefined Rules" section, there's a button labeled "Generated Fuzzy Rules". Below this, there are four more sections, each with a button labeled "Custom Rules (4)", "Definitions", "Advanced Options", and "Generated Fuzzy Rules (55)", each with a question mark icon.

A.I. **GRAPPLER (AGGRESSIVE)**

Instructions Name: Grappler (Aggressive)

Show Debug Info ☒

Reaction Weights ☒

▼ Predefined Rules ?

Auto Move ☒  
Rest On Location ☒  
Preferable Distance: Very Close  
Move Frequency: 3

Auto Jump ☒  
Jump Back Frequency: 1  
Jump Straight Frequency: 2  
Jump Forward Frequency: 2

Auto Attack ☒  
Use Range Filters ☒  
Attack Frequency: 5

Auto Block ☒  
Use Hit Type Filters ☒  
Stand Block Accuracy: 6  
Crouch Block Accuracy: 6  
Jump Block Frequency: 0

► Generated Fuzzy Rules

► Custom Rules (4) ?

► Definitions ?

► Advanced Options ?

► Generated Fuzzy Rules (55) ?

**Instruction Name:** Name of this instruction set.

**Show Debug Info:** Show the list of reaction weights the AI has to choose from. The higher the weight, the higher is the likability of that reaction.

**Sub-content:**

- [Installation](#)
- [Predefined Rules](#)

- [Custom Rules](#)
  - [Definitions](#)
  - [Advanced Options](#)
  - [Generated Fuzzy Rules](#)
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### Related Video Tutorial:

Coming soon

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