

# A.I. Editor

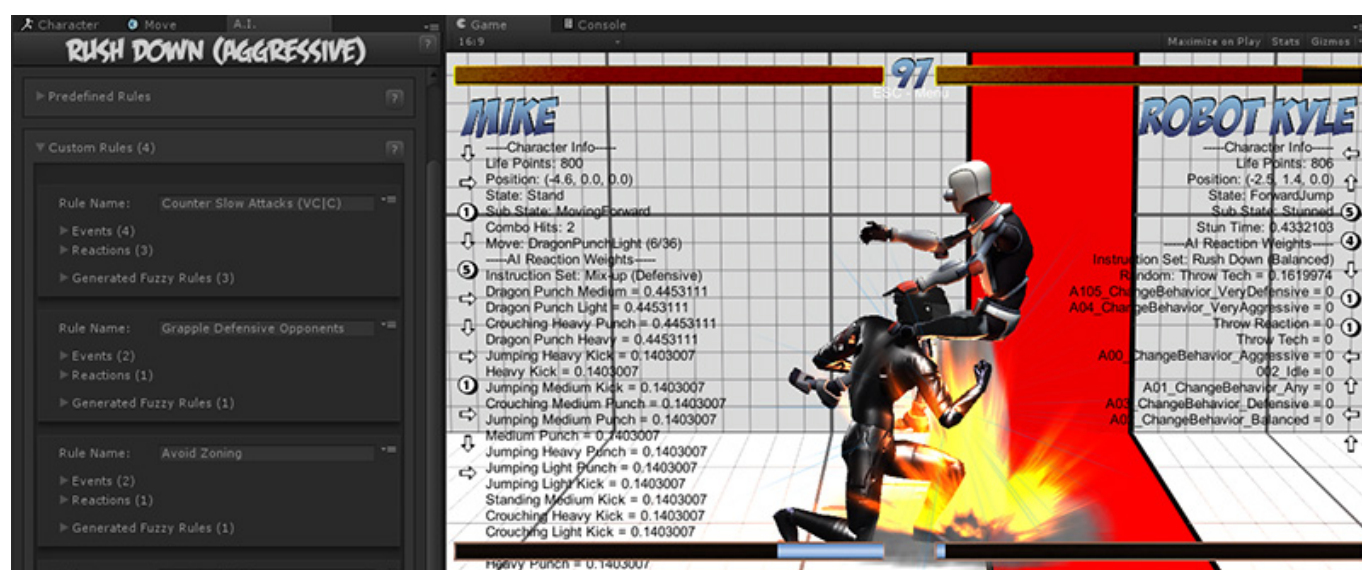
**Fuzzy AI Rule Generator (or simply Fuzzy AI)** is a tool designed to emulate human cognitive thinking. It provides user friendly layouts to design an instruction set that makes the character behave much like a real player would.

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 the **AI4Unity** library (created by David Guitierrez), a port of **AForge.Net** used to translate the information of the scene into **fuzzy values** that are then used by the engine 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.

Check out this interesting paper about Fuzzy AI and UFE by students from the University of Aizu: <https://arxiv.org/ftp/arxiv/papers/2108/2108.03599.pdf>



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\Fuzzy AI\Templates`

Inherits from: `.\UFE Addons\Fuzzy AI\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** → **A.I. Instructions**.

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](#)

### Related Video Tutorial:



Video

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Video

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<https://www.ufe3d.com/doku.php/ai:start>

Last update: **2024/12/09 03:32**

