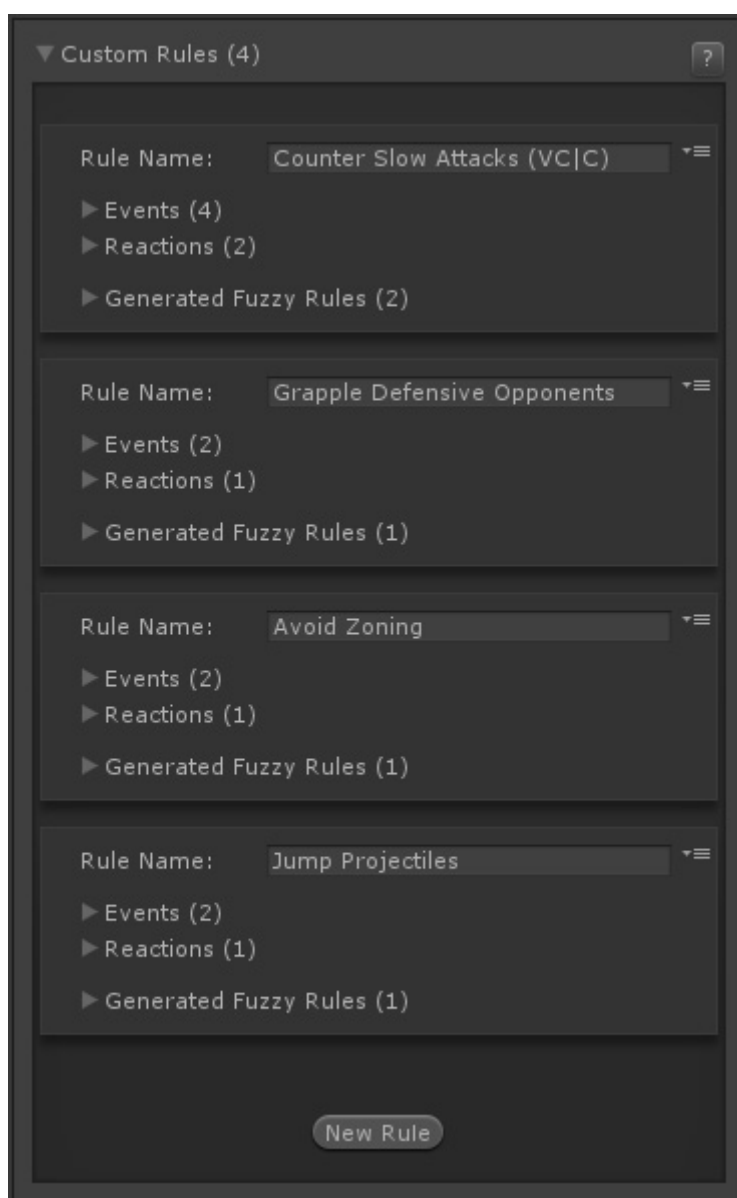


# Custom Rules

Here you can design your own fuzzy rules with an intuitive logic process. Fuzzy Logic operates with [Linguistic Variables](#) to facilitate the weight calculation process.

This process uses `.\UFE Addons\Runtime\AIRulesGenerator.cs` to automatically generate its own fuzzy rules.



## Rule

A rule is a set of events and conditions that tell the engine how likely a reaction should be.

This interface was created to better emulate linguistic variables into UFE through its events and conditions. From a logical operator point of view, think of events, conditions and reactions with the following operators:

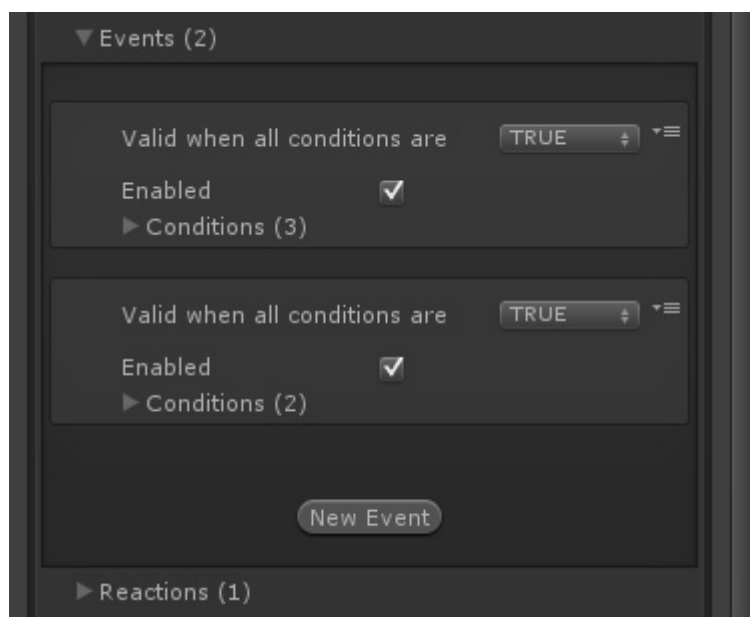
IF (Condition1 AND Condition2 AND ...) OR (Condition3 AND Condition4 AND ...) THEN [Reaction] is [Desirable Value]

Where (Condition1 AND Condition2 AND ...) Equals Event1 (Condition3 AND Condition4 AND ...) Equals Event2 ...

The linguistic variables used by the engine are a direct translation of this conditioning system, and they can be seen by clicking on *Generated Fuzzy Rules*.

By default, every reaction has 0 weight, and by default, if no weight is applied to reactions, the character should stay idle.

**Rule Name:** Use this to make a small description of what the rule is suppose to do.



## Event

Events contain conditions. A Rule is valid when at least one of the events is **valid**.

**Valid when all conditions are:** Allow you to invert the logic of this event. If set to **FALSE**, this event will be considered as a valid entry for the Reaction weight manipulation if its *not* **TRUE**.

Rule Name: Counter Slow Attacks (VC|C) ▾

▼ Events (4)

Valid when all conditions are TRUE ▾

Enabled ☒

▼ Conditions (2)

Valid when condition is TRUE ▾

Enabled ☒

Target: Opponent ▾

Condition Type: Attacking ▾

Current Frame Data: Any ▾

Any Attack Type ☒

Attack Type: Neutral ▾

Gauge Usage: Any ▾

Any Hit Type ☒

Hit Type: High Low ▾

Any Hit Confirm Type ☒

Hit Confirm Type: Hit ▾

Startup Speed: Very Slow ▾

Recovery Speed: Any ▾

Attack Range: Any ▾

Valid when condition is TRUE ▾

Enabled ☒

Target: Self ▾

Condition Type: Distance ▾

Proximity: Very Close ▾

## Condition

An event is only valid if all of its conditions are **valid**.

**Valid when condition is:** Allow you to invert the logic of this condition. If set to **FALSE**, this condition will be considered to be valid if the dictated entry is *not* **TRUE**.

## Reaction

When the conditions for one of the events is true, how likely is the AI to attempt the following reaction.

The screenshot displays the 'Reactions (3)' section of the AI Custom Rules editor. It contains three reaction configurations, each with a set of conditions and a desirability level. A 'New Reaction' button is located at the bottom.

Reaction Type	Desirability	Any Attack Type	Attack Type	Gauge Usage	Any Hit Type	Hit Type	Any Hit Confirm Type	Hit Confirm Type	Startup Speed	Recovery Speed	Attack Range
Crouch	Desirable										
Play Move	Very Desirable	<input checked="" type="checkbox"/>	Neutral	Any	<input checked="" type="checkbox"/>	High Low	<input checked="" type="checkbox"/>	Hit	Fast	Any	Any
Play Move	The Best Option	<input checked="" type="checkbox"/>	Neutral	Any	<input checked="" type="checkbox"/>	High Low	<input checked="" type="checkbox"/>	Hit	Very Fast	Any	Any

## Generated Fuzzy Rules

Allows you to read the result of all the rules being generated by these options. Useful to debug how each combination interact and the end result that is sent to the Fuzzy Core.

This option is for debug viewing only and it has no impact on the game.

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