**Blog 4**

Rule-Based System, propagated by Ian Millington as potentially “the most sophisticated game’s AI”, is a way of representing the certain rules (in the game) in the form of if -> then commands, which simplify the interpreting the information. Though the graphic representation of the RBS may vary depending on its type and personal preferences of the game developer, it does always consist of a rule set that, when triggered, carries out specified *then* clause, modifying the working memory if necessary. However, what if there is more than one applicable rule ? That is exactly a situation the conflict resolution strategies were created for. Amidst the most popular methods of selection we can distinguish *first applicable,* the simplest method efficient especially in case of potentially large problem, as well as *least recently used,* ideal solution when all the rules are needed for the solution of a certain problem, and *“best”* rule, that assumes assigning a value (weight) to prioritize the rule over its lower range alternatives.

Regarding the advantages of RBS it is important, that it does not only reduce the risk in terms of the system’s accuracy and simplifies its optimisation, but also provides a steady response based on the rules, what in turn makes RBS similar to a human cognitive system. On the other side, however, Rule-Based Systems are regarded as a solution much harder to implement than e.g. Decision Trees or FSM, which play a similar role, and that is also why RBS model remains pretty uncommon.