Improved two-ways classification for agent patterns

ABSTRACT

Agent technology has been used in building various domain specific applications. The agent methodologies are proposed to aid the agent developer with the introduction of techniques, terminology, notation and guidelines during the development of the agent system. Alternatively, agent patterns have been introduced by sharing the experience of engineering the agent system and allow the novices to solve the problem in a more systematic and structured way. To ease the accessibility of agent patterns, various catalogs or pattern classifications have been introduced. The pattern classification allows the user to find the patterns by organizing the patterns within a particular catalog. To date, various styles of pattern classification have been introduced. We argue that those styles are still insufficient to classify the current pools of agent patterns. This paper presents a classification scheme for agent patterns. It is an improvement of the existing pattern classifications. The improved classification was able to classify 204 agent patterns, which indirectly will ease of pattern selection in multi agent system development. In addition, we show the usage of pattern classification in determine the quality of the agent patterns. In fact, it is the first report that shows the quality of the agent patterns to date.