Abstract

Recent developments in the industry show strong inclination of Architects towards agent based software development and component based development. Both these approaches help organizations to utilize the older and experienced programs and interfaces into new products without having to reinvent the wheel; thereby reducing cost and time of production and ensuring high quality with already tested components and interfaces. Nowadays, researchers envisage an Intelligent Component-Oriented Software Development methodology which is an amalgam of the two approaches resulting in more flexible, reusable and customizable agent components. This helps in pushing forward the development timelines and quality expectations to newer heights. In this paper we mainly analyzed various states of art intelligent component-oriented software development techniques and studied the research gap in the component selection processes. Recommendations for future research direction for Intelligent Component-Oriented Software Development are also highlighted in this paper.
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**Index Terms**

Computer Science  |  Artificial Intelligence

**Keywords**

Multi-agent control  |  Component Based Development  |  Agent-based modeling  |  Self-adaptive systems