Complex Event Processing System Based on the Extended ECA Rule

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Abstract : ECA (Event-Condition-Action) languages are largely adopted for event processing since they are an intuitive and powerful paradigm for programming reactive systems. However, there are some limitations about ECA rules for processing of complex events such as coupling of event producer and consumer. The objective of this paper is to propose an ECA rule pattern to improve the current limitations of ECA rule, and to develop a prototype system. In this paper, conventional ECA rule is separated into 3 parts and each part is extended to meet the requirements of CEP. Finally, event processing logic is established by combining the relevant elements of 3 parts. The usability of proposed extended ECA rule is validated by a test scenario in this study.