

Business Process Modeling Integrating UML and Process Mapping Practices

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Abstract

Unified Modeling Language (UML), a prevailing object-oriented modeling method, is advantageous to achieve the major purposes of business process modeling (BPM). The deficiency of UML in process description, however, is unfavorable for building valid and reliable models. Accordingly, this paper presents an innovative BPM framework that seamlessly integrates UML elements and a novel process mapping method to achieve sound model integrity. Application of the BPM framework has been demonstrated using a practical industrial case. It was found that the modeling framework, featuring unambiguous linking between modeling stages, can ensure model validity and reliability. In addition, the BPM framework, which is more adaptable to dynamic environments, can greatly facilitate standardization and computerization of business processes.

Keywords: BPM, business process modeling, UML, process mapping, object-oriented modeling.