

学术探讨

面向执行的工作流控制流建模技术研究

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摘要 工作流系统中的控制流建模一般注重描述活动间的路由语义, 通过组合分支和汇合结点构造过程路由结构。这种描述方法不便于执行, 导致 workflow 引擎的实现复杂。直接从过程和活动本身及相邻两个活动间的控制响应关系和路由关系入手, 开发了一种基于 ECA 规则的控制流建模方法。使得过程和活动能响应外部事件, 从而实现对工作流的动态行为建模。而且, 用链接和控制点实现了活动间复杂路由语义的建模。统一了 workflow 引擎对控制流的执行方法, 使得 workflow 引擎的实现机制大大简化。

关键词 [工作流](#) [过程建模](#) [控制流](#) [ECA](#)

分类号

Research on execution-oriented control flow modeling technique in workflow

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Abstract

Control flow modeling in workflow systems commonly focuses on describing the semantics of routing relationship between activities. It constructs process routing structures by composing split nodes and join nodes. But this approach isn't appropriate for workflow engine to execute, and results in complication of the workflow engine. To accord with the nature of control flow, the author investigates the relation between control and response of process and activities firstly, then the routing relationship between activities directly. A control flow modeling approach based on ECA rules is proposed, which can model the dynamic behaviors of workflow by allowing the process and activity respond the events outside the workflow system. Moreover, complicated routing semantics are modeled by links and control points. With this approach, the executing mechanism of control flow is unified. It simplifies the realization of workflow engine greatly.

Key words [workflow](#) [process modeling](#) [control flow](#) [ECA](#)

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