

# 以代理人為基礎的工作流程管理系統架構

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## 摘要

隨著人事流動與人事成本等比例提高的情況下，工作流程自動化(workflow automation)能夠有效降低成本與提高產能，這也是企業組織或政府單位企盼達成的目標。多重代理人系統(Multi-agent System, MAS)已經成為系統開發設計的標準典範，透過智慧型代理人的特性，例如：自主性、主動性、反應性、合作性等，讓系統開發人員可以建構更具效率與彈性的應用系統。本研究參考工作流程管理聯盟(WfMC)提出的一般化工作流程產品架構(Generic Workflow Production Structure)，並且結合多重代理人的設計概念，針對系統導向型(System Oriented)工作流程，提出以代理人為基礎的工作流程管理系統架構，並且在JADE(Java Agent DEvelopment Framework)平台進行實作。本研究以研討會資訊系統為例，應用本研究所提出的架構進行分析、設計，建立以代理人為基礎的研討會資訊系統。透過代理人(agent)的協助能自動處理研討會中各項相關行政作業，減少人工作業的時間、成本，並且避免可能造成的疏失。

關鍵詞：工作流程自動化、多重代理人、一般化工作流程產品架構、工作流程管理系統

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