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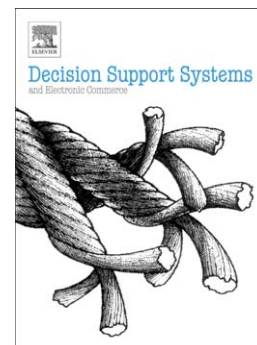
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with Process Mining

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PII: S0167-9236(12)00378-8  
DOI: doi: [10.1016/j.dss.2012.12.012](https://doi.org/10.1016/j.dss.2012.12.012)  
Reference: DECSUP 12247

To appear in: *Decision Support Systems*

Received date: 11 October 2011  
Revised date: 16 August 2012  
Accepted date: 4 December 2012



Please cite this article as: Filip Caron, Jan Vanthienen, Bart Baesens, Comprehensive Rule-Based Compliance Checking and Risk Management with Process Mining, *Decision Support Systems* (2012), doi: [10.1016/j.dss.2012.12.012](https://doi.org/10.1016/j.dss.2012.12.012)

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# Comprehensive Rule-Based Compliance Checking and Risk Management with Process Mining

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## Abstract

Process mining researchers have primarily focused on developing and improving process discovery techniques, while attention for the applicability of process mining has been below par. As a result, there only exists a partial fit with the traditional requirements for compliance checking and risk management.

This paper proposes a comprehensive rule-based process mining approach for a timely investigation of a complete set of enriched process event data. Additionally, the contribution elaborates a two-dimensional business rule taxonomy that serves as a source of business rules for the comprehensive rule-based compliance checking approach. Finally, the study provides a formal grounding for and an evaluation of the comprehensive rule-based compliance checking approach.

*Keywords:* Business Rules, Compliance Checking, Risk Management, Process Mining, Process-Aware Information Systems

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