Call for Papers, Issue 3/2025

Exploring the (Mis)Match Between Real-World Processes and Event Data

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1 Description of the Special Issue

Research on process mining focuses on the development of tools and techniques for the data-driven analysis of organizational processes. Process mining achieves this by analyzing event logs, which consist of events recorded during the execution of a process. Naturally, the insightfulness and correctness of any results obtained using process mining strongly depend on the characteristics of the event data used as input. Therefore, it is crucial to consider how well event data used in a process mining scenario actually resembles the real process that is under investigation. In this context, it is particularly important to consider *what* is actually recorded, *how* this recording occurs, and in *which form* the recorded data is represented, since such factors influence the completeness, correctness, and usability of the data at hand.

Recognizing this, the goal of this special issue is to dive deeply into the factors that influence the event data used in process mining, the impact that quality issues have on analysis results, and solutions to mitigate the impact of such issues. Therefore, we invite original contributions that specifically focus on the event data used in process mining,

welcoming both *investigative* and *solution-oriented* submissions.

Investigative papers focus on gaining or providing insights into the event data used in process mining, aiming to understand, capture, or analyze the existing (mis)match between event data and real-world processes. Investigative papers may be concerned with topics such as (but not restricted to):

- Assessing the representativeness and quality of event data with respect to a real-world process
- Investigating the presence of data quality and data integration issues in real-world scenarios
- The data-extraction pipeline used to obtain event logs
- The impact of data quality issues on process mining results
- The impact and consideration of exogenous factors (such as weather, resource involvement in other processes, etc.) during process analysis

Solution-oriented papers focus on improving the current situation by considering how event data can be recorded in a better manner, resolving quality issues in event logs, or mitigating the impact that such issues have on obtained process mining results. Solution-oriented papers may be concerned with topics such as (but not restricted to):

- Object-centric representations of event data and associated analysis techniques
- The incorporation of additional data sources into process mining
- Inferring hidden factors that influence processes, e.g., missing activities or process inter-dependencies
- Mitigating the impact of data quality and data integration issues on process mining results
- Process mining in the presence of data uncertainty

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- Data abstraction and augmentation techniques

2 Submission of Papers

Please submit papers by 1 July 2024 at the latest via the journal's online submission system (http://www.editorialmanager.com/buis/). Please observe the instructions regarding the format and size of contributions. Papers should adhere to the general BISE author guidelines (https://www.bise-journal.com/author_guidelines).

All papers will be reviewed anonymously (double-blind process) by at least two referees regarding relevance, originality, and research quality. In addition to the editors of the journal, including those of this special focus, distinguished international scholars will be involved in the review process.

3 Schedule

Submission Deadline	1 July 2024
Author Notification 1	1 September 2024
Completion Revision 1	1 November 2024
Author Notification 2	16 December 2024
Completion Revision 2	22 January 2025
Online publication	ASAP
Print publication	June 2025

4 Special Issue Editors

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