# REVE 2021: 9th International Workshop on Reverse Variability Engineering

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## ABSTRACT

Software Product Line (SPL) migration remains a challenging endeavour. From organizational issues to purely technical challenges, there is a wide range of barriers that complicates SPL adoption. This workshop aims to foster research about making the most of the two main inputs for SPL migration: 1) domain knowledge and 2) legacy assets. Domain knowledge, usually implicit and spread across an organization, is key to define the SPL scope and to validate the variability model and its semantics. At the technical level, domain expertise is also needed to create or extract the reusable software components. Legacy assets can be, for instance, similar product variants (e.g., requirements, models, source code, etc.) that were implemented using ad-hoc reuse techniques such as clone-and-own. More generally, the workshop REverse Variability Engineering attracts researchers and practitioners contributing to processes, techniques, tools, or empirical studies related to the automatic, semi-automatic or manual extraction or refinement of SPL assets.

## CCS CONCEPTS

• **Software and its engineering** → **Software reverse engineering**; **Software product lines**.

## KEYWORDS

Software product lines; variability management; reverse engineering; extractive software product line adoption

## REVE Workshop

This is the ninth edition of the workshop for this specialized topic. Mining existing assets is a practice area in Software Product Line (SPL) Engineering that is still active with interesting works from different teams worldwide. The workshop investigates how domain knowledge and assets can be more efficiently analysed with systematic processes and tool support during SPL migration. Improving this research sub domain of SPL has a direct impact on companies wanting to adopt SPLs. We also propose this workshop to bring the reengineering community to variability management issues that are directly related with their field of expertise.

The goals and expected results behind this series of workshops are:

- To provide a meeting point for researchers and practitioners in the area
- To review and formulate a research agenda in reverse engineering for variability
- Increase collaborative works on this domain
- To identify and gather a corpus of case studies and benchmarks to benefit the research and practitioner community

In general, the topics of discussions and contributions of the REVE series are:

- Experience reports on SPL migration
- Organizational issues on SPL migration
- Static, dynamic or information retrieval techniques for legacy assets analysis
- Feature identification and location techniques
- Feature constraints discovery
- Feature model synthesis
- Extraction of reusable components
- Clone detection techniques
- Visualisation techniques during SPL migration
- Product Line Architecture reengineering
- Refactoring theories and techniques for SPLE
- Tacit knowledge and collaboration in SPL migration
- Mining variability from software repositories
- Literature reviews on reverse engineering in SPLE
- Metrics and measurements for SPL migration
- Case studies and benchmark examples
- Tool support for SPL migration