Fourth International Workshop on
Languages for Modelling Variability (MODEVAR@SPLC 2021)

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ABSTRACT

Feature models were invented in 1990 and have been recognised as one of the main contributions to the Software Product Line community. Although there have been several attempts to establish and study a sort of standard variability modelling language, there is still no consensus on a simple feature modelling language. There can be many motivations to have one but among others, there is one that is very important: information sharing among researchers, tools or developers. Following the spirit of the first three editions, this workshop is an interactive event where all participants shall share knowledge, but also ongoing realizations about how to build up a simple feature modelling language that all the community can agree on.

CCS CONCEPTS

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

KEYWORDS

feature models, variability modelling languages and tools

1 MODEVAR WORKSHOP

The main topic of discussion of this workshop is variability modelling languages, concepts, usages and tools. In 1990 [4], feature models were proposed as a way of modelling variability. Since then, this contribution is among the most important ones in the software product line history. Nevertheless, there have been many feature modelling dialects [5] while more languages and environments with different functionalities were also developed [1]. In parallel, CVL [3] aimed at being a standard and common variability language, but the standardisation process failed. Recently, a family of industrial standards such as ISO/IEC 26558:2017 were released. As a community, we are missing a simple common variability modelling language for academic purposes as a first output. From there, we expect to advance the state of the art for those that model but also that manage variability in some form. We cannot share easily our models and we cannot have a sort of universal feature model repository where we could post our outputs using a common notation. Other communities do have such kind of languages such as CNF for SAT solving or XCSP for constraint programming to only mention a few.

In this context, this workshop (https://modevar.github.io/) intends to continue the effort started by its three first editions: join forces to make what could be an important contribution to the community. It aims to reach a consensus on the main modelling constructs and the language's syntax, so to have a big enough and representative consortium that supports the proposal and builds together a reference implementation. This year keeps the focus of the previous edition, with new ideas about the common language and advances on concrete solutions regarding its possible implementations.

The workshop first expects the presentation of new insights on industrial and academic needs to complement the usage scenarios devised in the first edition [2]. Proposals and updates on some of the language levels [6] previously determined, on the possible support for interoperability and storage of variability models are also expected. After the presentations, discussions are structured in small focused working groups to make advances over the language, its implementation, and the necessary next steps to prepare dissemination.

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