A methodology to recover feature models from object-oriented source code
Ra’Fat Ahmad Al-Msie’Deen, Abdelhak-Djamel Seriai, Marianne Huchard, Christelle Urtado, Sylvain Vauttier, Hamzeh Eyal-Salman

To cite this version:

HAL Id: lirmm-00808461
https://hal-lirmm.ccsd.cnrs.fr/lirmm-00808461
Submitted on 5 Apr 2013

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Here, we present a methodology to extract a feature model from O.O. source code for a set of product variants using partitioning techniques. We already have implemented step 1 extract source code elements and step 2 extract commonalities and variations. We have tested them on some standard case study and obtained promising results. We are still working on steps 3 & 4.

A block of variation is a set of variations that appear together in all products or in a single product. Each block of variation has one or more features. Each atomic block of variation represents a single atomic feature. We use partitioning techniques to identify atomic blocks of variation.

**Related Work**

Ryssel et al. [4] propose an approach to extract feature diagrams using FCA from incidence matrices that contain matching relation as input. It shows the parts of a set of function–block-oriented models that describe different controllers of a DC motor. Loesch et al. [5] present a new method based on FCA to analyze the realized variability in a software product line, and construct a lattice that provides a classification of the usage of variable features in real products derived from the product line. Zioł et al. [6] propose an automatic approach for feature identification from source code for a set of product variants. This approach assumes that the product variants use the same vocabulary to name packages, classes, attributes and methods in its source code.

**References**