Questionnaire based configuration of product-lines in FeatureIDE

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***Abstract*—Variability management is an essential part of working on product lines. This paper considers existing methods of configuration and tries to come up with a better alternative based on questionnaires to enable users or customers to configure a product on their own and to allow experts to design the questionnaires according to their domain knowledge. To further simplify the process of product configuration out of software product-lines, feature models are used to describe the set of features and constraints contained in a given software product-line. This paper proposes a method for automatically generating feature models out of descriptive files and naming conventions.**

***Index Terms*—FeatureIDE, Feature Modell, Generierung, Konfiguration, Fragebogen.**

I. Introduction

VARIABILITY management is an essential part of working on product lines. There are several approaches trying to control the vast amount of product variants though configuration. This allows experts to apply their domain knowledge in order to a resulting product conforming to a users needs.

This paper considers existing methods of configuration and tries to come up with a better alternative based on questionnaires to enable users or customers to configure a product on their own and to allow experts to design the questionnaires according to their domain knowledge.

Feature Models are vital tools for the configuration of product lines in such a way that they give a complete and easily understandable overview of the given features and constraints of a product-line. This work aims at automatically generating feature models out of descriptive files and naming conventions, to simplify a big part of the configuration.

Contribution

Simplifying the process of configuration of productlines in FeatureIDE

This[1] is[2] a[3] dummy to create citations.

II. Basics

The methods and technologies we used will be listed and explained here plus references to related work for further research will be given

A. FeatureIDE

B. Feature Models

C. Contraints, contradictions, SAT-solver

D. Questionnaire structures

III. Concept

A. Problem statement

Very high complexity of configuration due to many features and constraints. Domain knowledge is highly required to understand the given software product-line and being able to combine it's features to a valid configuration which satisfies the users needs.

B. State of the art

Compare the existing approaches to the stated problem and show why they are insufficient.

C. Questionnaire Approach

Use benefits of the existing approaches and overcome their shortcomings to solve the problem. State different variants and show the best one through comparison.

IV. Scenarios

State a few usage scenarios and show why the questionnaire is better or as good as the existing solutions. Also point out in which scenario this might be the wrong tool.

V. Conclusion and Future Work

A. Conclusion

This is where the work is concluded. In this section there will be a description of the way we did things and the experiences we made during it. An emphasis will be on the insights and the findings from the scenarios will get outlined.

B. Future Work

Here will be a summary of the new questions that were raised in this work. Also there will be topics for further research. Particularly the problems we encountered and couldn't solve with our concept and why will be pointed out and first approaches will be suggested.

APPENDIX A

Do we need any appendices? Maybe some screenshots to display the usage.

REFERENCES

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