fUML Refactoring with EMF*

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Abstract. In this work we will present some ideas and concepts for refactoring fUML with EMF. The main contribution of this work is the extension of existing UML refactorings to cover not only the static aspect of UML such as class diagrams but also include refactorings for dynamic parts such as activity diagrams. In this work we will present basic concepts for refactoring with EMF and show how model semantics can be preserved through the use of OCL constraints. Finally we conclude with a discussion of EMF.Refactor, which shows how such refactorings can be included into Eclipse GUIs such as EMF tree editor or Papyrus.

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1 Introduction

fUML adds semantics to UML models that make it possible to create semantically closed models which can be executed on the model level. With fUML classic refactorings are not enough to refactor those models as they do not support the refactoring of the dynamic aspects of models such as activity diagrams.

2 Refactorings Examples

In this section we will present some general refactorings such as the "extract superclass" refactoring.

3 Refactoring of UML diagrams

4 Refactoring of fUML diagrams

In this section we will present the extension of our uml refactorings to fUML activity diagrams.

5 Related Works

We have compared our works with several other available papers. In [..] there is a discussion of uml refactings which covers ....

some related works such as ...

6 Conclusion

We conclude this paper with...

7 Bibliographic Issues

7.1 Literature Search

Information on online libraries and literature search, e.g., interesting magazines, journals, conferences, and organizations may be found at `http://www.big.tuwien.ac.at/teaching/info.html`.

7.2 BibTeX

BibTeX should be used for referencing.

The LaTeX source document of this pdf document provides you with different samples for references to journals [3], conference papers [6], books [2], book chapters [7], electronic standards [5], dissertations [8], masters' theses [4], and web sites [1]. The respective BibTeX entries may be found in the file `references.bib`. For administration of the BibTeX references we recommend `http://www.citeulike.org` or JabRef for offline administration, respectively.

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