

University of Magdeburg  
School of Computer Science



Master's Thesis

*[The Title of the Thesis]*

Author:

*[Forename] [Surname]*

*[Month 13], [2013]*

Advisors:

Prof. *[Name]*

Department of *[...]*

*[Surname], [Forename]:*  
*[The Title of the Thesis]*  
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# Abstract

[...]



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# List of Acronyms

IDE Integrated Development Environment



# 1. Introduction

[...]

**Goal of this Thesis**

[...]

**Structure of the Thesis**

[...]





## 2. Background

[...]



## 3. Example Chapter

This chapter gives you some examples how to include graphics, create tables, or include code listings. But first, we start with a short description how you can efficiently cite in L<sup>A</sup>T<sub>E</sub>X. The following footnote shows you how to reference URLs and where this document is available online.<sup>1</sup>

### 3.1 Acronyms

This template makes advantage of the glossaries package to support acronyms. The first occurrence of an acronym is replaced by its definition, e.g., **Integrated Development Environment (IDE)**. All other occurrences are replaced by the acronym (IDE). The glossaries package also supports plural—**IDEs**.

Sometimes you want to make sure, that the long version is used, even if **Integrated Development Environment (IDE)** was inserted before.

### 3.2 Citation

There are several types of literature. The most citations are workshop and conference papers. Please use the inproceedings-tag for those citations, e.g. [KAK09]. You should have short-hands for workshop and conference names to be sure the naming is consistent and uniform (see our BibTeX files how to do that).

Slightly different are articles published in journals, e.g. [KG06]. Make sure you that the volume and number-tags are present and that no inproceeding is tagged as article or vice versa.

You might want to take a look at the example BibTeX file to find out how to cite books [CE00], technical reports [KCH<sup>+</sup>90], websites [CDT09], PhD theses, or master theses [Beu03, Ros09].

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<sup>1</sup><http://www.ovgu.de/tthuem>

### 3.3 Formulas

There are different types of mathematical environments to set formulas. The equation  $E = m \cdot c^2$  is an inline formula. But you can also have formulas at a separate line (see [Equation 3.1](#)).

$$P = (\mathcal{A} \Rightarrow (\mathcal{B} \Leftrightarrow \mathcal{C}) \wedge (\mathcal{B} \Leftrightarrow \mathcal{D})) \wedge (\mathcal{B} \Rightarrow \mathcal{A}) \wedge (\mathcal{C} \Rightarrow \mathcal{A}) \wedge (\mathcal{D} \Rightarrow \mathcal{A}) \quad (3.1)$$

If you need multiple lines that are aligned to each other, you might want to use the following code.

```

GraphLibrary
 $\wedge$  (GraphLibrary  $\Rightarrow$  Edges)  $\wedge$  (Edges  $\vee$  Algorithms  $\Rightarrow$  GraphLibrary)
 $\wedge$  (Edges  $\Leftrightarrow$  Directed  $\vee$  Undirected)  $\wedge$  ( $\neg$ Directed  $\vee$   $\neg$ Undirected)
 $\wedge$  (Algorithms  $\Leftrightarrow$  Number  $\vee$  Cycle)
 $\wedge$  (Cycle  $\Rightarrow$  Directed).
```

### 3.4 Graphics

In [Figure 3.1](#), we give a small example how to insert and reference a figure.

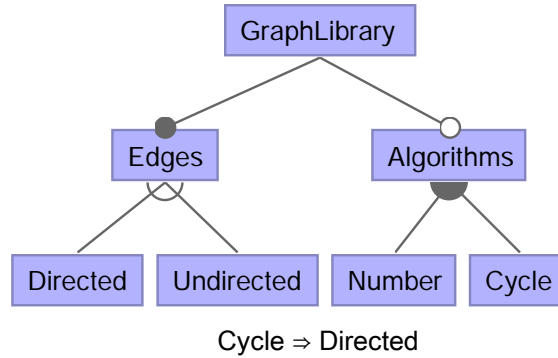


Figure 3.1: A feature model representing a graph product line

### 3.5 Tables

[Table 3.1 on the facing page](#) shows the result of a simple tabular environment.

### 3.6 Code Listings

In [3.1 on the next page](#), we give an example of a source code listing.

Group Type	Propositional Formula
And	$(P \Rightarrow C_{k_1} \wedge \dots \wedge C_{k_m}) \wedge (C_1 \vee \dots \vee C_n \Rightarrow P)$
Or	$P \Leftrightarrow C_1 \vee \dots \vee C_n$
Alternative	$(P \Leftrightarrow C_1 \vee \dots \vee C_n) \wedge \text{atmost1}(C_1, \dots, C_n)$

Table 3.1: Mapping a feature model to a propositional formula

```

1 class A extends Object {
2     A() { super(); }
3 }
4 class B extends Object {
5     B() { super(); }
6 }
7 class Pair extends Object {
8     Object fst;
9     Object snd;
10    Pair(Object fst, Object snd) {
11        super(); this.fst=fst; this.snd=snd;
12    }
13    Pair setfst(Object newfst) {
14        return new Pair(newfst, this.snd);
15    }
16 }

```

Listing 3.1: Java source code



## 4. Evaluation

[...]





## 5. Related Work

[...]



## 6. Conclusion

[...]



## 7. Future Work

[...]



## A. Appendix

[...]





# Bibliography

- [Beu03] Danilo Beuche. *Composition and Construction of Embedded Software Families*. PhD thesis, University of Magdeburg, Germany, 2003. (cited on Page )
- [CDT09] The Coq Development Team. The Coq Proof Assistant. Website, September 2009. Available online at <http://coq.inria.fr/>; visited on November 9th, 2009. (cited on Page )
- [CE00] Krzysztof Czarnecki and Ulrich W. Eisenecker. *Generative Programming: Methods, Tools, and Applications*. ACM Press/Addison-Wesley, 2000. (cited on Page )
- [KAK09] Christian Kästner, Sven Apel, and Martin Kuhlemann. A Model of Refactoring Physically and Virtually Separated Features. In *Proceedings of the International Conference on Generative Programming and Component Engineering (GPCE)*, pages 157–166. ACM, October 2009. (cited on Page )
- [KCH<sup>+</sup>90] Kyo C. Kang, Sholom G. Cohen, James A. Hess, William E. Novak, and A. Spencer Peterson. Feature-Oriented Domain Analysis (FODA) Feasibility Study. Technical Report CMU/SEI-90-TR-21, Software Engineering Institute, 1990. (cited on Page )
- [KG06] Cory J. Kapser and Michael W. Godfrey. Supporting the Analysis of Clones in Software Systems: A Case Study. *Journal of Software Maintenance and Evolution*, 18(2):61–82, 2006. (cited on Page )
- [Ros09] Malte Rosenthal. Alternative Features in Colored Featherweight Java. Diplomarbeit, University of Passau, Germany, July 2009. (cited on Page )



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Hiermit erkläre ich, dass ich die vorliegende Arbeit selbständig verfasst und keine anderen als die angegebenen Quellen und Hilfsmittel verwendet habe.

Magdeburg, den *[...]*