Compilation Project

Mid-Project Report
Master 1 INFO & MOSIG, UGA and Grenoble Inp

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1. Introduction

This report is submitted as a part of the mid-submission Compilation project. We list down the functionalities that we have implemented and the problems faced.

2. Work Log Details

DATE	IMPLEMENTATION
18/12	Refactoring of Code, organized classes into packages and Type Checking
19/12	Front End - K nor and Alpha Conversion
20/12	Nested Reduction, ASML Data Structure
21/12	ARM Generation, ASML Generation
22/12	ARM Generation, Test Script

3. Functionality implemented

1. K-Normalization

2. Alpha-conversion

3. Reduction of nested-let

4. ASML generation (debugging required)

5. Type checking (not complete)

6. Command Line Options (not complete - The option -p gives the output for AST as well as Knorm , Alpha and Reduction)

7. ASML data-structure

8. ARM generation of ASML (debugging required)

4.   Problems faced

1. We could not complete the type checking using Equation Generation and Resolution and it is partially implemented.
2. We tried to implement the ASML Generation but had few exceptions, therefore we could not integrate the front end and back end.
3. We tested the individual components but we could not test the whole project since we could not integrate it.

5.   Future Implementations

1. Complete type checking and closure conversion transformation part in Front End.
2. Implement proper ASML Generation and integrate front end and back end.
3. Implement if-then-else increment and debug and improve the whole project.