Introduction

1.1 Background

XXX

1.2 Problem Description

XXX

1.3 Motivation

XXX Methodology

2.1 Understanding the Input Format

XXX

2.1.1 Writing a Grammar

XXX

2.2 Lexical Analysis

XXX

• Use a lexical analyzer to generate tokens and detect errors?

2.2.1 Tokens

XXX

TOKEN	DESCRIPTION	EXAMPLE
module		reconr
number		3.14

2.2.2 Patterns

XXX should patterns be described?

2.2.3 Lexemes

XXX should lexemes be described?

2.2.4 Comments

XXX investigate the possibility to use comments in the input?

2.3 Syntactic Analysis

XXX

• Use a parser generator such as YACC which can detect and report syntax errors?

2.4 Semantic Analysis

- Enforce a type system?
- Detect and report errors?

XXX Implementation

- 3.1 NJOY Input Format (NIF)
 - Grammar Definition?
- 3.2 NJOY Input Format Translator (nifty)
 - Python Lex?
 - Python YACC?

3.2.1 Code Generation

XXX Results

4.1 XXX

XXX Discussion

5.1 XXX

Conclusion

• Improvement on the existing situation?

6.1 Future Work

- $\bullet \ \mbox{Possible improvements?}$
- $\bullet \ \ Complete \ context-free \ grammar?$
- GUI?
- Efficient implementation (e.g. C)?

Bibliography

[1] XXX