Exploring Languages
with Interpreters
and Functional Programming
Chapter 40

H. Conrad Cunningham

04 April 2022

Contents

Copyright (C) 2018, 2022, H. Conrad Cunningham
Professor of Computer and Information Science
University of Mississippi
214 Weir Hall
P.O. Box 1848
University, MS 38677
(662) 915-7396 (dept. office)

Browser Advisory: The HTML version of this textbook requires a browser that supports the display of MathML. A good choice as of April 2022 is a recent version of Firefox from Mozilla.

40 Language Processing

40.1 Chapter Introduction

This is a stub for a future chapter. Only a figure exists so far.

40.2 Compiler Phases

See Figure 40.2

40.3 What Next?

TODO

40.4 Chapter Source Code

TODO if applicable

40.5 Exercises

ODO

40.6 Acknowledgements

TODO

40.7 References

TODO

40.8 Terms and Concepts

TODO

```
        ┌─────────────────────┐
        (    Source Code     )
        └─────────────────────┘
                   │
                   ▼
        ┌─────────────────────┐
        │  Lexical Analyzer   │
        │     (Scanner)       │
        └─────────────────────┘
                   │
                   ▼
        ┌─────────────────────┐
        │      Parser         │
        │ (Syntax Analyzer)   │
        └─────────────────────┘
                   │
                   ▼
        ┌─────────────────────┐
        │ Semantic Analyzer   │
        │                     │
        └─────────────────────┘
                   │
                   ▼
        ┌─────────────────────┐
        │   Intermediate      │
        │  Code Generator     │
        └─────────────────────┘
                   │
                   ▼
        ┌─────────────────────┐
        │ Machine-Independent │
        │  Code Optimizer     │
        └─────────────────────┘
                   │
                   ▼
        ┌─────────────────────┐
        │      Target         │
        │  Code Generator     │
        └─────────────────────┘
                   │
                   ▼
        ┌─────────────────────┐
        │  Machine-Specific   │
        │  Code Optimizer     │
        └─────────────────────┘
                   │
                   ▼
        ┌─────────────────────┐
        (    Target Code     )
        └─────────────────────┘
```
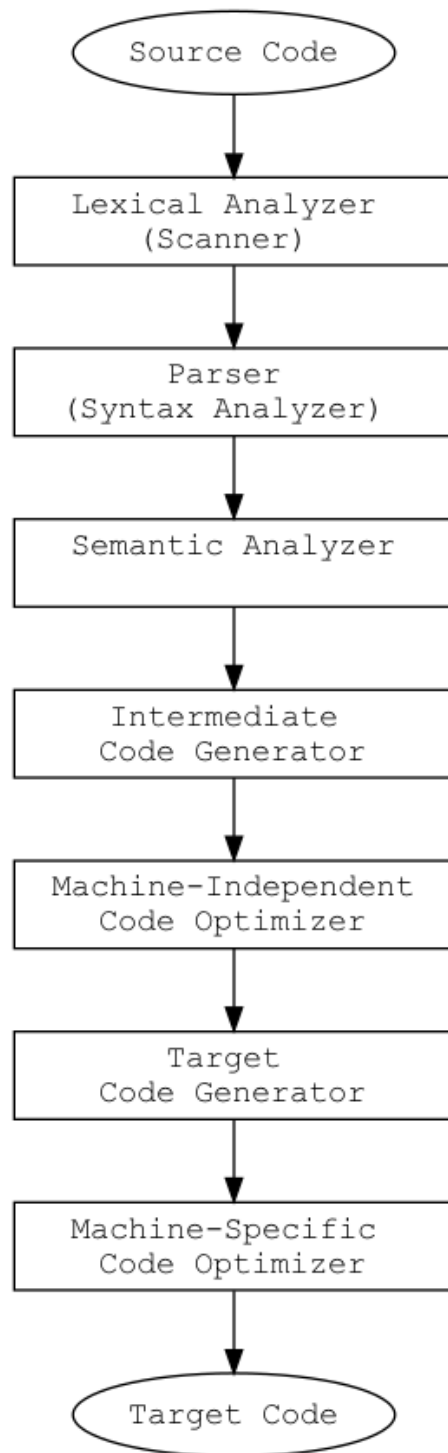
Figure 40.1: Phases of compilation.

40.9   References