

Compiler Design in C - Chapter 6.9 (Statements and Control Flow)

Presented by Jiří Šálek and Petr Mrázek

This presentation describes how to process basic sequential statements and statements affecting code flow in a compiler intended for an imperative programming language. These include *return*, *unconditional jump*, *if..else*, *switch*, various forms of loops and ways to manipulate control flow within loops (*continue* and *break*). We show how to break them down into a simpler form that is suitable for conversion into 3-address code, using constructs like jumps, labels and jump tables. Finally, we show some basic data structures and code for implementing jump tables.