

Concepts of Programming Languages, CSCI 305, Fall 2021
Action Routines, Section 4.4, pages 195-200, Nov. 29

Action routines – routines attached to a grammar which is executed by the compiler as it parses code

- Often used in production compilers
- Can be used to build parse trees as shown in the example below

LL parsing – action routines can appear anywhere within a right-hand side. Pointer to the action routine is pushed onto the stack and is executed when it is at the top of the stack.

Thus:

- Action routine at the beginning is executed when the parser predicts the production
- Routine embedded in the middle of the right-hand side is executed when the parser “matches” the symbol to its left