

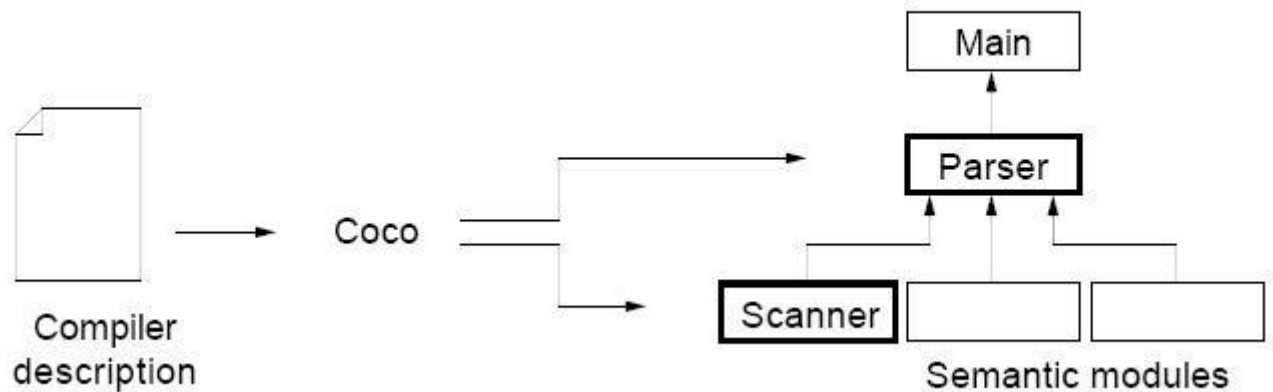
Assignment 6

2.05.2006

Due date: 11.05.2006

Scanners and Parsers

In the previous assignment we wrote our own scanner and parser for the library application query language (LAQL). Now we will use Coco/R to generate the scanner and the parser automatically:



Write a grammar for the same LAQL using Coco/R (`/usr/common/coco-r` at the institute or <http://www.ssw.uni-linz.ac.at/Research/Projects/Coco/>), and use the generated scanner and parser to execute the queries in your library application.

Use **semantic attributes** in the LAQL grammar in order to collect the information specific to each query. You are not allowed to use global variables or modify the Parser generated sources.

Pay attention that recursive descent parsing require that the grammar satisfies the LL(1) property; this means that at any point in the grammar the parser must be able to decide on the basis of a single lookahead symbol which alternative to select. Coco/R checks if the grammar satisfies the LL(1) property and gives error messages if appropriate.

Short introduction to Coco/R the paper <http://www.ssw.uni-linz.ac.at/Research/Papers/Moe90.html> (1990) and the technical report <http://www.ssw.uni-linz.ac.at/Research/Reports/CocoReport.html> (1990).
