Modified grammar

# (after elimination of left recursion and common left prefixes in the original grammar).

PROGRAM -> start\_prog DEFINITIONS start\_com COMMANDS end\_prog

DEFINITIONS -> DEFINITION DEFINITION\_MAYBE

DEFINITION\_MAYBE -> eps

DEFINITION\_MAYBE -> ; DEFINITIONS

DEFINITION -> TYPE DEFINITION\_TYPE

DEFINITION -> id : exception

DEFINITION\_TYPE -> ID\_LIST

DEFINITION\_TYPE -> const id := number

TYPE -> integer

TYPE -> real

ID\_LIST -> id ID\_LIST\_MAYBE

ID\_LIST\_MAYBE -> eps

ID\_LIST\_MAYBE -> , ID\_LIST

COMMANDS -> COMMAND COMMAND\_MAYBE

COMMAND\_MAYBE -> eps

COMMAND\_MAYBE -> ; COMMANDS

COMMAND -> id := EXPRESSION

COMMAND -> loop COMMANDS while CONDITION end\_loop

COMMAND -> embded DEFINITIONS start\_com COMMANDS end\_embed

COMMAND -> raise id

EXPRESSION -> EXPRESSION\_SIMPLE EXPRESSION\_MAYBE

EXPRESSION\_SIMPLE -> number

EXPRESSION\_SIMPLE -> id

EXPRESSION\_SIMPLE -> (EXPRESSION)

EXPRESSION\_MAYBE -> eps

EXPRESSION\_MAYBE -> ar\_op EXPRESSION

CONDITION -> EXPERSSION rel\_op EXPRESSION