

Gramática LM - LL1 EBNF

MODULE = (1) FUNCTIONS MAIN

FUNCTIONS = (2) 'ID' PARAMS RETURNTYPE ESCAPE FUNCTIONS |
(3) ϵ

MAIN = (4) 'MAIN' 'OP' 'CP' 'VOID' ESCAPE

PARAMS = (5) 'OP' PARAMSEXT

PARAMSEXT = (6) 'CP' |
(7) LISTPARAMS 'CP'

LISTPARAMS = (8) TYPE NAME LISTPARAMSEXT

LISTPARAMSEXT = (9) 'SPTR' LISTPARAMS | (10) ϵ

TYPE = (11) 'INT' | (12) 'BOOL' | (13) 'CHAR' | (14) 'STRING' | (15) 'FLOAT'

RETURNTYPE = (16) 'VOID' | (17) TYPE RETURNTYPEEXT

RETURNTYPEEXT = (18) 'OB' 'CB' | (19) ϵ

NAME = (20) 'ID' NAMEEXT

NAMEEXT = (21) 'OB' INDEX 'CB' | (22) ϵ

INDEX = (23) 'ID' | (24) 'CTEINT'

ESCAPE = (25) 'OK' COMMANDS 'CK' 'SCO'

COMMANDS = (26) CMD 'SCO' COMMANDS | (27) ϵ

CMD = (28) DECLARATION | (29) 'ID' CMDEXT | (30) PRINT | (31) READ | (32) IFELSE | (33) WHEN | (34) REPEATER | (35) RETURN

DECLARATION = (36) TYPE NAME

CMDEXT = (37) ATTRIBUTION | (38) FUNCCALL

ATTRIBUTION = (39) NAMEEXT 'ATR' VALUE

VALUE = (40) ARRAY | (41) CONSTANT

ARRAY = (42) 'OB' ARRAYEXT

ARRAYEXT = (43) ELEMENTS 'CB' | (44) 'CB'

ELEMENTS = (45) CONSTANT ELEMENTSEXT

ELEMENTSEXT = (46) 'SPTR' ELEMENTS | (47) ϵ

FUNCTIONCALL = (48) 'OP' LISTPARAMSCALL 'CP'

LISTPARAMSCALL = (49) PARAMITEM LISTPARAMSCALLEXT

LISTPARAMSCALLEXT = (50) 'SPTR' LISTPARAMSCALL | (51) ϵ

PARAMITEM = (52) CONSTANT | (53) NAME

PRINT = (54) 'PRINT' 'OP' MESSAGE 'CP'

MESSAGE = (55) 'CTESTRING' MESSAGEEXT | (56) NAME MESSAGEEXT

MESSAGEEXT = (57) 'CONCAT' MESSAGE | (58) ϵ

READ = (59) 'READ' 'OP' READEXT 'CP'

READEXT = (60) NAME READEXTR

READEXTR = (61) 'SPTR' READEXT | (62) ϵ

IFELSE = (63) IF ELIF ELSE

IF = (64) 'IF' 'OP' EXPRESSION 'CP' 'OK' COMMANDS 'CK'

ELIF = (65) 'ELIF' 'OP' EXPRESSION 'CP' 'OK' COMMANDS 'CK' ELIF | (66) ϵ

ELSE = (67) 'ELSE' 'OK' COMMANDS 'CK' | (68) ϵ

WHEN = (69) 'WHEN' 'OP' EXPRESSION 'CP' 'OK' COMMANDS 'CK'

REPEATER = (70) 'REPEATER' 'OP' ATTRIBUTION 'SCO' EXPRESSION 'SCO'
ATTRIBUTION 'CP' 'OK' COMMANDS 'CK'

RETURN = (71) 'RETURN' RETURNEXT

RETURNEXT = (72) CONSTANT | (73) NAME

CONSTANT = (74) 'CTEINT' | (75) 'CTEFLOAT' | (76) 'CTEBOOL' | (77) 'CTECHAR' | (78)
'CTESTRING'

Gramática na forma ambígua:

EXPRESSION = (1) EXPRESSION 'OR' EXPRESSION |
(2) EXPRESSION 'AND' EXPRESSION |
(3) EXPRESSION 'ORC' EXPRESSION |
(4) EXPRESSION 'ORE' EXPRESSION |
(5) EXPRESSION 'OPA' EXPRESSION |
(6) EXPRESSION 'OPM' EXPRESSION |
(7) 'OPU' EXPRESSION |
(8) 'NOT' EXPRESSION |
(9) EXPRESSION 'OPE' EXPRESSION |
(10) 'OP' EXPRESSION 'CP' |
(11) 'CTEINT' |
(12) 'CTEFLOAT' |
(13) 'CTEBOOL' |
(14) 'CTECHAR' |
(15) 'CTESTRING' |
(16) 'ID' |
(17) 'ID' 'OB' EXPRESSION 'CB' |
(18) 'ID' 'OP' EXPRESSION 'CP' |
(19) EXPRESSION 'SPTR' EXPRESSION