## GRAMÁTICA LINGUAGEM 2M (EBNF)

PROGRAM = FUNCTIONS MAJORF

FUNCTIONS = 'id' PARAMS RETURNTYPE ESCOPE FUNCTIONS | &

MAJORF = 'major' 'paramBegin' 'paramEnd 'tEmpty' ESCOPE

PARAMS = 'paramBegin' 'paramEnd' | 'paramBegin' LISTPARAMS 'paramEnd'

LISTPARAMS = TYPE NAME | TYPE NAME 'sep1' LISTPARAMS

TYPE = 'tlnt' | 'tLong' | 'tLogic' | 'tChar' | 'tCchar' | 'tDec'

RETURNTYPE = 'tEmpty' | TYPE | TYPE 'arrayBegin' 'arrayEnd'

NAME = 'id' | 'id' 'arrayBegin' 'constNumInt' 'arrayEnd'

ESCOPE = 'escBegin' COMMANDS 'escEnd' 'term'

COMMANDS = CMD 'term' COMMANDS | &

CMD = DECLARATION | ATTRIBUTION | FUNCCALL | PRINTOUT | READIN

| IFELSE | WHILE | DOWHILE | ITERATOR | RETURN

DECLARATION = TYPE NAME

ATTRIBUTION = NAME 'opAtrib' VALUE

VALUE = ARRAY | EXPRESSION

ARRAY = 'arrayBegin' ELEMENTS 'arrayEnd' | 'arrayBegin' 'arrayEnd'

ELEMENTS = CONSTANT | CONSTANT 'sep1' ELEMENTS

CONSTANT = 'constNumInt' | 'constNumDec' | 'constLogic' | 'constChar' | 'constCchar'

EXPRESSION(\* Ver Gramática de Expressões \*)

FUNCCALL = 'id' 'paramBegin' LISTPARAMSCALL 'paramEnd'

LISTPARAMSCALL = PARAMITEM | PARAMITEM 'sep1' LISTPARAMSCALL

PARAMITEM = CONSTANT | NAME

PRINTOUT = 'prPrintout' 'paramBegin' MESSAGE 'paramEnd'

MESSAGE = 'constCchar' 'opConc' MESSAGE | NAME 'opConc' MESSAGE |

'constCchar' | NAME

READIN = 'prReadin' 'paramBegin' TYPE 'sep1' NAME 'paramEnd'

IFELSE = IF ELSEIF ELSE

IF = 'prlf' 'paramBegin' EXPRESSION 'paramEnd' 'escBegin' COMMANDS

'escEnd'

ELSEIF = 'prElseIf' paramBegin' EXPRESSION 'paramEnd' 'escBegin'

COMMANDS 'escEnd' ELSEIF | &

ELSE = 'prElse' 'escBegin' COMMANDS 'escEnd' | &

WHILE = 'prWhile' 'paramBegin' EXPRESSION 'paramEnd' 'escBegin'

COMMANDS 'escEnd'

DOWHILE = 'prDo' 'escBegin' COMMANDS 'escEnd'

'prWhile' 'paramBegin' EXPRESSION 'paramEnd'

ITERATOR = 'prlterator' 'paramBegin'

ATTRIBUTION 'sep2' EXPRESSION 'sep2' ATTRIBUTION

'paramEnd' 'escBegin' COMMANDS 'escEnd'

RETURN = 'prReturn' CONSTANT | 'prReturn' NAME