



Universidade Federal de Alagoas
Campus A. C. Simões

Ciência da Computação
Compiladores - 2018.1

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Especificação da Linguagem de programação CLPL

Maceió - AL
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Link para a tabela da linguagem:

<https://docs.google.com/spreadsheets/d/13JEyJBKafg3ffonAosCF8WqRlbaie3cbDet03HfzX-g/edit?usp=sharing>

S -> INICIAL

INICIAL-> LIST_FUNC MAIN_FUNC

INICIAL-> MAIN_FUNC

LIST_FUNC -> LIST_FUNC FUNC

LIST_FUNC -> FUNC

FUNC -> Id BeginP PARAMETER_LIST EndP SepPont TYPE_FUNC BeginCh

COMANDS_LIST EndCh

MAIN_FUNC -> Init BeginP PARAMETER_LIST EndP SepPont TYPE_FUNC BeginCh

MAIN_FUNC -> Init BeginP EndP SepPont TYPE_FUNC BeginCh COMANDS_LIST
EndCh

PARAMETER_LIST -> PARAMETER_LIST SepV PARAMETER

PARAMETER_LIST -> PARAMETER

PARAMETER -> TYPE SepPont Id

PARAMETER -> VECTOR_TYPE SepPont Id

TYPE_FUNC -> TYPE

TYPE_FUNC -> void

TYPE_FUNC -> VECTOR_TYPE

TYPE-> TypeInt

TYPE-> TypeFloat

TYPE-> TypeBool

TYPE-> TypeChar

TYPE-> TypeChar

VECTOR_TYPE -> TYPE BeginC OPERATION_AR EndC

VECTOR_TYPE -> TYPE BeginC EndC

CONST_TYPE -> ConstInt

CONST_TYPE -> ConstFloat

CONST_TYPE -> ConstBool

CONST_TYPE -> ConstChar

CONST_TYPE -> ConstString

COMANDS_LIST -> COMANDS_LIST COMAND

COMANDS_LIST -> COMAND

COMAND -> RETURN

COMAND -> VAR_DECLARATION
COMAND -> ATTRIBUTION
COMAND -> In BeginP ConstString SepV LIST_OPERATION_LG EndP SepPV
COMAND -> Out BeginP ConstString SepV LIST_OPERATION_LG EndP SepPV
COMAND -> Out BeginP ConstString EndP SepPV
COMAND -> FUNC_CALL
COMAND -> LOOP
COMAND -> InsSIf BeginP LIST_OPERATION_LG EndP BeginCh COMANDS_LIST
EndCh

RETURN -> Return RETURN_TYPE SepPV
RETURN_TYPE -> LIST_OPERATION_LG

VAR_DECLARATION -> DECLARATION_LIST
VAR_DECLARATION -> TYPE DECLARATION_LIST
VAR_DECLARATION -> VECTOR_TYPE DECLARATION_LIST

DECLARATION_LIST -> DECLARATION_TYPE SepV DECLARATION_LIST
DECLARATION_LIST -> DECLARATION_TYPE SepPV
DECLARATION_TYPE -> ATTRIBUTION

ATTRIBUTION -> Id
ATTRIBUTION -> Id BeginC OPERATION_AR EndC
ATTRIBUTION -> Id OpAtr LIST_OPERATION_LG
ATTRIBUTION -> Id BeginC OPERATION_AR EndC OpAtr LIST_OPERATION_LG

LIST_OPERATION_LG -> LIST_OPERATION_LG OP_LG OPERATION_RL
LIST_OPERATION_LG -> OPERATION_RL

OPERATION_RL -> OPERATION_RL OP_RE OPERATION_AR
OPERATION_RL -> OPERATION_AR

OPERATION_AR -> OPERATION_AR OP_AR ATRIBVALUE
OPERATION_AR -> ATRIBVALUE

ATRIBVALUE -> Id
ATRIBVALUE -> Id BeginC OPERATION_AR EndC
ATRIBVALUE -> FUNC_CALL
ATRIBVALUE -> CONST_TYPE

OP_LG -> OpLogAnd
OP_LG -> OpLogOr

OP_LG -> OpLogNot

OP_AR -> OpArAd

OP_AR -> OpArMult

OP_AR -> OpArdiv

OP_AR -> OpArMod

OP_AR -> OpArExp

OP_RE -> OpReD

OP_RE -> OpReI

FUNC_CALL -> Id BeginP LI EndP SepPV

LI -> LIST_OPERATION_LG SepV LI

LI -> LIST_OPERATION_LG

LOOP -> InsInWh BeginP LIST_OPERATION_LG EndP BeginCh COMANDS_LIST
EndCh

LOOP -> InsInfor BeginP ATTRIBUTION IntTo LIST_OPERATION_LG EndP BeginCh
COMANDS_LIST EndCh