

# Hito Intermedio

Paulo Cesar Rodriguez

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## 1 Gramática Para el Lenguaje

### 1.1 No Terminales

- start (Simbolo de Inicio)
- assign\_operation
- scalar\_operation
- vector\_operation
- access\_operation
- print\_operation
- plot\_operation
- data\_type
- assign\_values
- point
- point\_array
- access\_operation
- math\_operation
- scalar\_operation
- vector\_operation
- modify\_operation
- scalar\_operator
- vector\_operator
- access\_operation

## 1.2 Terminales

- data\_type = point\_int, point\_float, pol\_int, pol\_float, int, float
- vector\_operation = ++, --, -, +
- scalar\_operation = +., -., \*., /.
- print,( , ), [, ] , ;
- ID, VECTOR\_OBJECT, NUMBER, POINT\_OBJECT, INTEGER\_NUMBER

## 1.3 Estructura de la Gramática

```
start -> assign_operation | scalar_operation | vector_operation | access_operation
      | print_operation | plot_operation

assign_operation -> data_type ID = assign_values ;

assign_values -> ( point_array ) ; | ( ) ; | access_operation ; | math_operation ;

point_array -> point,point_array | point

scalar_operation -> point_array scalar_operator NUMBER ; |
                  access_operation scalar_operator NUMBER ;

vector_operation -> math_operation ; | modify_operation ;

math_operation -> VECTOR_OBJECT vector_operator VECTOR_OBJECT

modify_operation -> VECTOR_OBJECT += POINT_OBJECT

access_operation -> VECTOR_OBJECT[INTEGER_NUMBER]

point -> NUMBER NUMBER

data_type -> point_int | point_float | pol_int | pol_float | int | float

vector_operation -> ++ | -- | - | +

scalar_operator -> +. | -. | *. | /.

print_operation -> print ( ID )

plot_operation -> plot ( ID )
```