## *Γραμματική της Strange*

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|---|---|
| <PROGRAM> | ::= **program** ID <BLOCK> |
| <BLOCK> | ::= **{** <DECLARATIONS> <SUBPROGRAMS> <SEQUENCE> **}** |
| <DECLARATIONS> | ::= ε \| **declare** <VARLIST> **enddeclare** |
| <VARLIST> | ::= ε \| ID ( , ID )* |
| <SUBPROGRAMS> | ::= ( <FUNC> ) * |
| <FUNC> | ::= **procedure** ID <FUNCBODY> \| **function** ID <FUNCBODY> |
| <FUNCBODY> | ::= <FORMALPARS> <BLOCK> |
| <FORMALPARS> | ::= ε \| **(** <FORMALPARLIST> **)** |
| <FORMALPARLIST> | ::= <FORMALPARITEM> ( , <FORMALPARITEM> )* |
| <FORMALPARITEM> | ::= **in** ID \| **inout** ID \| **copy** ID |
| <SEQUENCE> | ::= <STATEMENT> ( ; <STATEMENT> )* |
| <BRACKETS-SEQ> | ::= { <SEQUENCE> } |
| <BRACK-OR-STAT> | ::= <BRACKETS-SEQ> \| <STATEMENT> |
| <STATEMENT> | ::= ε \| |
| | <ASSIGNMENT-STAT> \| |
| | <IF-STAT> \| |
| | <WHILE-STAT> \| |
| | <DO-WHILE-STAT> |
| | <EXIT-STAT> \| |
| | <INCASE-STAT> \| |
| | <FORCASE-STAT> \| |
| | <CALL-STAT> |
| | <RETURN-STAT> \| |
| | <PRINT-STAT> |
| <ASSIGNMENT-STAT> | ::= ID **:=** <EXPRESSION> |
| <IF-STAT> | ::= **if (<**CONDITION>**)** <BRACK-OR-STAT> <ELSEPART> |
| <ELSEPART> | ::= ε \| **else** <BRACK-OR-STAT> |

| | | |
|---|---|---|
| &lt;DO-WHILE-STAT&gt; | ::= | **do** &lt;BRACK-OR-STAT&gt; **while (&lt;**CONDITION&gt;**)** |
| &lt;EXIT-STAT&gt; | ::= | **exit** |
| &lt;RETURN-STAT&gt; | ::= | **return (**&lt;EXPRESSION&gt;**)** |
| &lt;PRINT-STAT&gt; | ::= | **print (**&lt;EXPRESSION&gt;**)** |
| &lt;WHILE-STAT&gt; | ::= | … |
| &lt;INCASE-STAT&gt; | ::= | … |
| &lt;FORCASE-STAT&gt; | ::= | … |
| &lt;CALL-STAT&gt; | ::= | … |

| | | |
|---|---|---|
| &lt;ACTUALPARS&gt; | ::= | **(** &lt;ACTUALPARLIST&gt; **)** \| ε |
| &lt;ACTUALPARLIST&gt; | ::= | &lt;ACTUALPARITEM&gt; ( **,** &lt;ACTUALPARITEM&gt; )* |
| &lt;ACTUALPARITEM&gt; | ::= | **in** &lt;EXPRESSION&gt; \| **inout** ID \| **copy** ID |
| &lt;CONDITION&gt; | ::= | &lt;BOOLTERM&gt; (**or** &lt;BOOLTERM&gt;)* |
| &lt;BOOLTERM&gt; | ::= | &lt;BOOLFACTOR&gt; (**and** &lt;BOOLFACTOR&gt;)* |
| &lt;BOOLFACTOR&gt; | ::= | **not [**&lt;CONDITION&gt;**]** \| **[**&lt;CONDITION&gt;**]** \| |
| | | &lt;EXPRESSION&gt; &lt;RELATIONAL-OPER&gt; &lt;EXPRESSION&gt; |
| &lt;EXPRESSION&gt; | ::= | &lt;OPTIONAL-SIGN&gt; &lt;TERM&gt; ( &lt;ADD-OPER&gt; &lt;TERM&gt;)* |
| &lt;TERM&gt; | ::= | &lt;FACTOR&gt; (&lt;MUL-OPER&gt; &lt;FACTOR&gt;)* |
| &lt;FACTOR&gt; | ::= | CONSTANT \| **(**&lt;EXPRESSION&gt;**)** \| ID &lt;IDTAIL&gt; |
| &lt;IDTAIL&gt; | ::= | ε \| &lt;ACTUALPARS&gt; |
| &lt;RELATIONAL-OPER&gt; | ::= | **=** \| **&gt;** \| **&lt;** \| **&gt;=** \| **&lt;=** \| **&lt;&gt;** |
| &lt;ADD-OPER&gt; | ::= | **+** \| **-** |
| &lt;MUL-OPER&gt; | ::= | **\*** \| **/** |
| &lt;OPTIONAL-SIGN&gt; | ::= | ε \| &lt;ADD-OPER&gt; |