BNF DA LINGUAGEM DE PROGRAMAÇÃO LINGPON 1.0

```
 1  <program>                 ::= <fbes> <inst> <strategy> <rules> <main>
 2                             |  <fbes> <inst> <strategy> <rules>
 3
 4  <fbes>                    ::= <fbe>
 5                             |  <fbe> <fbes>
 6
 7  <fbe>                     ::= FBE <id> <fbe_body> END_FBE
 8
 9  <inst>                    ::= INST <declarations> END_INST
10
11  <strategy>                ::= STRATEGY <strategy_declaration> END_STRATEGY
12
13  <strategy_declaration>    ::= NO_ONE
14                             |  BREADTH
15                             |  DEPTH
16
17  <declarations>            ::= <declaration>
18                             |  <declaration> <declarations>
19
20  <declaration>             ::= <type> <ids>
21
22  <ids>                     ::= <id>
23                             |  <id> COMMA <ids>
24
25  <rules>                   ::= <rule>
26                             |  <rule> <rules>
27
28  <rule>                    ::= RULE <rule_body> END_RULE
29                             |  RULE <id> <rule_body> END_RULE
30
31  <rule_body>               ::= <decl_condition> <decl_action>
32                             |  <decl_properties> <decl_condition> <decl_action>
33
34  <decl_properties>         ::= PROPERTIES <properties_body> END_PROPERTIES
35
36  <properties_body>         ::= <properties_type> <value>
37
38  <properties_type>         ::= PRIORITY
39                             |  KEEPER
40
41  <decl_condition>          ::= CONDITION <condition_body> END_CONDITION
42                             |  CONDITION <id> <condition_body> END_CONDITION
43
44  <condition_body>          ::= <subcondition> <operator> <condition_body>
45                             |  <subcondition>
46
47  <operator>                ::= AND
48                             |  OR
49
50  <subcondition>            ::= SUBCONDITION <id> <subcondition_body>
51  END_SUBCONDITION
52
53  <subcondition_body>       ::= <premise> AND <subcondition_body>
54                             |  <premise>
55
56  <premise>                 ::= PREMISE <exp>
57                             |  PREMISE <id> <exp>
58                             |  PREMISE IMP <exp>
```

```
59                                    |   PREMISE IMP <id> <exp>

61   <exp>                    ::= <fator> <comp> <fator>

63   <comp>                   ::= EQ
64                             |   NE
65                             |   LT
66                             |   GT
67                             |   LE
68                             |   GE

70   <fator>                  ::= <id>
71                             |   NUMBER
72                             |   boolean
73                             |   FLOATVALUE
74                             |   STRINGVALUE
75                             |   CHARVALUE

77   <boolean>                ::= TRUE
78                             |   FALSE

80   <decl_action>            ::= ACTION <action_body> END_ACTION
81                             |   ACTION <id> <action_body> END_ACTION

83   <action_body>            ::= <action_elements> <action_body>
84                             |   <action_elements>

86   <action_elements>        ::= <instigation>
87                             |   <method_use>
88                             |   <exp> SEMICOLON

90   <instigation>            ::= INSTIGATION <method_use>
91                             |   INSTIGATION <id> <method_use>

93   <method_use>             ::= <id> LP RP SEMICOLON

95   <id>                     ::= ID
96                             |   ID POINT <id>

98   <decl_attributes>        ::= ATTRIBUTES <attributes> END_ATTRIBUTES

100  <attributes>             ::= <attributes_body>
101                            |   <attributes_body> <attributes>

103  <attributes_body>        ::= <type> <id> <value>
104                            |   <type> <id> SEMICOLON

106  <type>                   ::= BOOLEAN
107                            |   INTEGER
108                            |   PFLOAT
109                            |   STRING
110                            |   CHAR

112  <value>                  ::= NUMBER
113                            |   FLOATVALUE
114                            |   STRINGVALUE
115                            |   CHARVALUE
116                            |   <boolean>

118  <decl_methods>           ::= METHODS <methods> END_METHODS
119
```

```
120  <methods>                  ::= <method_body>
121                             |   <method_body> <methods>
122
123  <method_body>              ::= METHOD <id> LP <id> ASSIGN <id>
124                                     <method_operator> <value> RP
125                             |   METHOD <id> LP <id> ASSIGN <id>
126                                     <method_operator> <id> RP
127                             |   METHOD <id> LP <id> ASSIGN <value RP
128                             |   METHOD <id> LP <id> ASSIGN <id> RP
129                             |   METHOD <id> LP <id> RP INNER_CODE_METHOD
130                             |   METHOD <id> LP RP INNER_CODE_METHOD
131
132  <method_operator>          ::= PLUS
133                             |   MINUS
134                             |   MULT
135                             |   DIV
136
137  <main>                     ::= MAIN INNER_CODE_MAIN
```

Código 1: BNF da linguagem de programação LingPON 1.0
Fonte: Adaptado de Ferreira, 2015