Lexic.txt

Alphabet

  a. letters from english alphabet

`<letter> ::= a|b|..|z|A|B|…|z`

b. decimal digits

`<nz-digit> ::= 1|2|...|9`

`<digit> ::= 0|<nz-digit>`

c. special characters

`_`

LEXIC

- reserved keywords

`var, integer, read, write, condition, otherwise, long_integer, step_loop, string, real`

- separators

`;    ***    (    )      [   ]   space`

- operators

`,    +    -    /    :=   :<   :>  :<=  :>= :== :!=`

b. identifiers

- sequences of letters only

`<identifier> ::= <special_char>|<letter>|<letter><identifier>| <special_char><identifier>`

`<special_char> ::= _`

c. constants

  1. integers

`<integer>::=0|<unsigned_integer>|<signed_integer>`

`<digit> ::= 0|1|…|9`

`<nonzerodigit> ::= 1|..|9`

```
<sign> ::= -|+
```

```
<digitsq> ::= <digit> | <digit><digitsq>
```

```
<unsigned_integer> ::= <nonzerodigit>|<nonzerodigit><digitsq>
```

```
<signed_integer> ::= <sign><nonzerodigits><signed_integer> | <sign><nonzerodigits>
```

2. reals

```
<real> ::= <integer>|<unsigned_integer>.<digitsq>|<signed_integer>.<digitsq>
```

3. character

```
<character> ::= '<letter>' | '<digit>'
```

4. strings

```
<string> ::= <character>|<character><string>
```

```
<conststring> ::= ""|"<string>"
```

5. array

```
<array> ::= <identifier> [ <unsigned_integer> ]
```