PLC Laboratory 7

Obsah

Interpreter of Arithmetic Expressions Using ANTLR

Using ANTLR, implement an interpreter of arithmetic expressions. These expressions contain +, -, *, / operators (with common priorities and left associativity) and parentheses. To simplify the task, consider we have only binary operators. There are no unary operators in our language.

As a starting point, you can use following ANTLR grammar (it describes different kind of expressions): ANTLR input file (http://linedu.vsb.cz/~beh01/wiki_data/PLC_Lab7_expr.g4)

Input specification

In the input, there are expressions, they are written in formatting. Each expression ends with semicolon. Numbers can be written similarly to C language constants. it can be either: decimal , octal (starting with zero) or hexadecimal (starting with characters 0x) number.

Output specification

For each expression write one line containing the result – the computed value of the expression. If there is any error in the input, you can stop the computation.

Example

- Input

```
012-10; 2 * (0xff+5);
0x23e5-0x201;
```

- Output

```
0
520
8676
```

Solution

- You can download the solution: PLC_Lab7_solution.zip (http://linedu.vsb.cz/~beh01/wiki_data/PLC_Lab7_solution.zip)

Citováno z „http://behalek.cs.vsb.cz/wiki/index.php?title=PLC_Laboratory_7&oldid=3097"

Stránka byla naposledy editována 30. 3. 2022 v 09:07.