

The Language arith

BNF Converter

August 12, 2021

This document was automatically generated by the *BNF-Converter*. It was generated together with the lexer, the parser, and the abstract syntax module, which guarantees that the document matches with the implementation of the language (provided no hand-hacking has taken place).

The lexical structure of arith

Literals

Reserved words and symbols

The set of reserved words is the set of terminals appearing in the grammar. Those reserved words that consist of non-letter characters are called symbols, and they are treated in a different way from those that are similar to identifiers. The lexer follows rules familiar from languages like Haskell, C, and Java, including longest match and spacing conventions.

The reserved words used in arith are the following:

```

else  false  if    iszero
pred  succ   then  true

```

The symbols used in arith are the following:

0		
---	--	--

Comments

There are no single-line comments in the grammar. There are no multiple-line comments in the grammar.

The syntactic structure of arith

Non-terminals are enclosed between < and >. The symbols -> (production), | (union) and **eps** (empty rule) belong to the BNF notation. All other symbols are terminals.

```

Exp  ->  true
        |  false
        |  if Exp then Exp else Exp
        |  0
        |  succ Exp
        |  pred Exp
        |  iszero Exp

```