

Languages-beta: SIMPLE-1-Lexical *

The PPlanCompS Project

SIMPLE-1-Lexical.cbs | PLAIN | PRETTY

OUTLINE

1 Lexical Syntax

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 - 1.2 Integers
 - 1.3 Strings
 - 1.4 Identifiers
-

Language "SIMPLE"

1 Lexical Syntax

Syntax $V : \text{value} ::= \text{bool} \mid \text{int} \mid \text{string}$

$\text{bool} ::= \text{'false'} \mid \text{'true'}$

Lexis $Z : \text{int} ::= (0-9)^+$

Syntax $\text{string} ::= \text{'_string-chars_}'$

Lexis $S : \text{string-chars} ::= (\sim \text{''})^*$

Semantics $\text{val}[_ : \text{value}] : \Rightarrow \text{values}$

1.1 Booleans

Rule $\text{val}[\text{'false'}] = \text{false}$

Rule $\text{val}[\text{'true'}] = \text{true}$

1.2 Integers

Rule $\text{val}[Z] = \text{decimal-natural}(Z)$

1.3 Strings

Rule $\text{val}[\text{' ' } S \text{' '}] = S$

*Suggestions for improvement: plancomps@gmail.com.
Reports of issues: <https://github.com/plancomps/CBS-beta/issues>.

1.4 Identifiers

Lexis $id : id ::= (A-Z | a-z | _)(0-9 | A-Z | a-z | _)^*$

Semantics $id[_ : id] : \Rightarrow ids$

Rule $id[id] = "id"$

Lexis $keyword ::= false | true | var | function | sizeof | read$
| $spawn | if | else | while | for | print | return$
| $try | catch | throw | join | acquire | release$
| $rendezvous$