

Unstable-Languages-beta: SIMPLE-THR-1-Lexical *

The P_LanCompS Project

SIMPLE-THR-1-Lexical.cbs | PLAIN | PRETTY

OUTLINE

1 Lexical Syntax

1.1 Booleans

1.2 Integers

1.3 Strings

1.4 Identifiers

Language "SIMPLE-THR"

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

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 $Id : \text{id} ::= ('A' - 'Z' \mid 'a' - 'z' \mid _) ('0' - '9' \mid 'A' - 'Z' \mid 'a' - 'z' \mid _)^*$

Semantics $\text{id}[_ : \text{id}] : \Rightarrow \text{ids}$

Rule $\text{id}[\textit{Id}] = \textit{"Id"}$

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

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