

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

The P_{LAN}CompS Project

Unstable-Languages-beta/SIMPLE-THR/SIMPLE-THR-1-Lexical/SIMPLE-THR-1-Lexical.c

Language "SIMPLE-THR"

1 Lexical Syntax

```
Syntax V : value ::= bool
                  | int
                  | string
bool ::= false
      | true
Lexis Z : int ::= (0 – 9)+
Syntax string ::= "_string-chars_"
Lexis S : string-chars ::= ( ~ " )*
```

Semantics *val* [*_* : value] : ⇒ values

1.1 Booleans

```
Rule val [ false ] =
    false
Rule val [ true ] =
    true
```

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

1.2 Integers

Rule **val** $\llbracket Z \rrbracket =$
 decimal-natural("Z")

1.3 Strings

Rule **val** $\llbracket \text{" S " } \rrbracket =$
 "S"

1.4 Identifiers

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

Semantics **id** $\llbracket _ : \text{id} \rrbracket : \Rightarrow$ **ids**

Rule **id** $\llbracket Id \rrbracket =$
 "*Id*"

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