

Languages-beta: SIMPLE-5-Programs

The P_{LAN}CompS Project

Languages-beta/SIMPLE/SIMPLE-5-Programs/SIMPLE-5-Programs.cbs*

Language "SIMPLE"

5 Programs

Syntax $Pgm : \text{pgm} ::= \text{decls}$

Semantics $\text{run} \llbracket \text{Decls} : \text{pgm} \rrbracket : \Rightarrow \text{values} = \text{scope}(\text{collateral}(\text{declarations} \llbracket \text{Decls} \rrbracket),$
 $\text{sequential}(\text{initialisations} \llbracket \text{Decls} \rrbracket,$
 $\text{apply}(\text{assigned}(\text{bound}(\text{"main"})),$
 $\text{tuple}(\)))$

Syntax $\text{Decls} : \text{decls} ::= \text{decl decls}^?$

Semantics $\text{declarations} \llbracket _ : \text{decls} \rrbracket : (\Rightarrow \text{environments})^+$

Rule $\text{declarations} \llbracket \text{Decl} \rrbracket =$
 $\text{declare} \llbracket \text{Decl} \rrbracket$

Rule $\text{declarations} \llbracket \text{Decl Decls} \rrbracket =$
 $\text{declare} \llbracket \text{Decl} \rrbracket,$
 $\text{declarations} \llbracket \text{Decls} \rrbracket$

Semantics $\text{initialisations} \llbracket _ : \text{decls} \rrbracket : (\Rightarrow \text{null-type})^+$

Rule $\text{initialisations} \llbracket \text{Decl} \rrbracket =$
 $\text{initialise} \llbracket \text{Decl} \rrbracket$

Rule $\text{initialisations} \llbracket \text{Decl Decls} \rrbracket =$
 $\text{initialise} \llbracket \text{Decl} \rrbracket,$
 $\text{initialisations} \llbracket \text{Decls} \rrbracket$

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

