

# Unstable-Languages-beta: SIMPLE-THR-5-Programs

The P<sub>LAN</sub>CompS Project

Unstable-Languages-beta/SIMPLE-THR/SIMPLE-THR-5-Programs/SIMPLE-THR-5-Programs

*Language* “SIMPLE-THR”

## 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*  $\text{declarations} \llbracket \text{Decl Decls} \rrbracket =$

$\text{declare} \llbracket \text{Decl} \rrbracket,$

$\text{declarations} \llbracket \text{Decls} \rrbracket$

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\*Suggestions for improvement: [plancomps@gmail.com](mailto:plancomps@gmail.com).  
Issues: <https://github.com/plancomps/CBS-beta/issues>.

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

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

$\llbracket \text{initialise} \llbracket Decl \rrbracket \rrbracket$

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

$\llbracket \text{initialise} \llbracket Decl \rrbracket \rrbracket,$

$\llbracket \text{initialisations} \llbracket Decls \rrbracket \rrbracket$