

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

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

SIMPLE-THR-5-Programs.cbs | PLAIN | PRETTY

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

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

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