

Languages-beta: IMP-4 *

The P_LanCompS Project

IMP-4.cbs | PLAIN | PRETTY

Language "IMP"

4 Programs and variable declarations

Syntax $Pgm : \text{pgm} ::= \text{'int' idlist ';' stmt}$

Semantics $\text{run}[\![_ : \text{pgm}]\!] : \Rightarrow \text{null-type}$

Rule $\text{run}[\![\text{'int' } IL \text{' ';' Stmt }]\!] =$
 $\text{scope}(\text{collateral}(\text{declare-int-vars}[\![IL]\!]),$
 $\text{execute}[\![Stmt]\!])$

Syntax $IL : \text{idlist} ::= \text{id (' , ' idlist)?}$

Semantics $\text{declare-int-vars}[\![_ : \text{idlist}]\!] : (\Rightarrow \text{environments})^+$

Rule $\text{declare-int-vars}[\![I]\!] =$
 $\text{bind}(\text{id}[\![I]\!], \text{allocate-initialised-variable}(\text{integers}, 0))$

Rule $\text{declare-int-vars}[\![I \text{' , ' } IL]\!] =$
 $\text{declare-int-vars}[\![I]\!], \text{declare-int-vars}[\![IL]\!]$

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