

Languages-beta: SL-4-Definitions *

The PPlanCompS Project

SL-4-Definitions.cbs | PLAIN | PRETTY

OUTLINE

4 Function definitions

Parameter lists

Language “SL”

4 Function definitions

Syntax `FunDef : fun-def ::= 'function' id '(' id-list? ')'` block

Semantics `declare[FunDef* : fun-def*] : ⇒ environments`

Rule `declare['function' Id '(' IdList? ')'` Block] =
{id[Id] ↦
function closure
scope(
initialise-local-variables,
sequential(
pass-list[IdList?],
handle-return(exec[Block]))})}

Rule `declare[] = map()`

Rule `declare[FunDef FunDef+] =
collateral(declare[FunDef], declare[FunDef+])`

Parameter lists

Syntax `IdList : id-list ::= id (',' id-list)?`

Semantics `pass-list[IdList : id-list?] : lists(values) ⇒ null-type`

Rule `pass-list[] = null-value`

Rule `pass-list[Id] =
local-variable-initialise(id[Id], checked head given)`

Rule `pass-list[Id ',' IdList] =
sequential(
local-variable-initialise(id[Id], checked head given),
give(checked tail given, pass-list[IdList]))`

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