

Languages-beta: OC-L-11-Module-Implementations *

The PPlanCompS Project

OC-L-11-Module-Implementations.cbs | PLAIN | PRETTY

Language "OCaml Light"

11 Module implementations

Syntax $UI : \text{unit-implementation} ::= (\text{semicolon-pair}^* \text{module-items semicolon-pair}^*)?$

$MIS : \text{module-items} ::=$
 definition
 $| \text{expr}$
 $| \text{module-items semicolon-pair}^* \text{module-item}$

$MI : \text{module-item} ::=$
 definition
 $| \text{semicolon-pair expr}$

$D : \text{definition} ::=$
 let-definition
 $| \text{type-definition}$
 $| \text{exception-definition}$

Lexis $SCP : \text{semicolon-pair} ::= ';;'$

Semantics $\text{interpret}[\![UI : \text{unit-implementation}]\!] : \Rightarrow \text{environments}$

Rule $\text{interpret}[\!] = \text{map}(\)$

Rule $\text{interpret}[\![SCP_1^* MIS SCP_2^*]\!] =$
 $\text{handle-thrown}(\$
 $\text{scope}(\$
 $\text{ocaml-light-core-library},$
 $\text{accumulate}(\text{define-or-evaluate-items}[\![MIS]\!]),$
 $\text{sequential}(\$
 $\text{print}(\text{"Uncaught exception: "}, \text{ocaml-light-to-string given}, \text{"\n"}),$
 $\text{map}(\))$
 $\)$

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

Semantics `define-or-evaluate-items` $[_ : \text{module-items}] : (\Rightarrow \text{envs})^+$

Rule `define-or-evaluate-items` $[[LD]] =$
`ocaml-light-define-and-display` `define-values` $[[LD]]$

Rule `define-or-evaluate-items` $[[TDS]] = \text{define-types}$ $[[TDS]]$

Rule `define-or-evaluate-items` $[[ED]] = \text{define-exception}$ $[[ED]]$

Rule `define-or-evaluate-items` $[[E]] =$
`ocaml-light-evaluate-and-display` `evaluate` $[[E]]$

Rule `define-or-evaluate-items` $[[MIS\ SCP^*\ D]] =$
 $(\text{define-or-evaluate-items} [[MIS]], \text{define-or-evaluate-items} [[D]])$

Rule `define-or-evaluate-items` $[[MIS\ SCP^*\ SCP\ E]] =$
 $(\text{define-or-evaluate-items} [[MIS]], \text{define-or-evaluate-items} [[E]])$