

Funcons-beta: Interacting *

The PPlanCompS Project

Interacting.cbs | PLAIN | PRETTY

OUTLINE

Interacting
Output
Input

Interacting

Output

[*Entity* **standard-out**
Funcon **print**]

Entity $_ \xrightarrow{\text{standard-out}!(_: \text{values}^*)} _$

This entity represents the sequence of values output by a particular transition, where the empty sequence () represents the lack of output. Composition of transitions concatenates their output sequences.

Funcon **print**($_ : \text{values}^*$) : \Rightarrow **null-type**

print(X^*) evaluates the arguments X^* and emits the resulting sequence of values on the standard-out channel. **print**() has no effect.

Rule **print**($V^* : \text{values}^*$) $\xrightarrow{\text{standard-out}!(V^*)}$ **null-value**

Input

[*Entity* **standard-in**
Funcon **read**]

Entity $_ \xrightarrow{\text{standard-in}?(_: \text{values}^*)} _$

This entity represents the sequence of values input by a particular transition, where the empty sequence () represents that no values are input. The value **null-value** represents the end of the input.

Composition of transitions concatenates their input sequences, except that when the first sequence ends with **null-value**, the second sequence has to be just **null-value**.

Funcon **read** : \Rightarrow **values**

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

`read` inputs a single value from the standard-in channel, and returns it. If the end of the input has been reached, `read` fails.

Rule `read` $\xrightarrow{\text{standard-in?}(V:\sim \text{null-type})}$ `V`

Rule `read` $\xrightarrow{\text{standard-in?}(\text{null-value})}$ `fail`