

# Funcons-beta: Continuing \*

The PPlanCompS Project

Continuing.cbs | PLAIN | PRETTY

---

## Continuing

```
[ Datatype continuing
  Funcon continued
  Funcon finalise-continuing
  Funcon continue
  Funcon handle-continue ]
```

Meta-variables  $T <: \text{values}$

Datatype `continuing` ::= `continued`

`continued` is a reason for abrupt termination.

```
Funcon finalise-continuing( $X : \Rightarrow T$ ) :  $\Rightarrow T$  | null-type
  ~> finalise-abrupting( $X$ )
```

`finalise-continuing( $X$ )` handles abrupt termination of  $X$  due to executing `continue`.

```
Funcon continue :  $\Rightarrow \text{empty-type}$ 
  ~> abrupt(continued)
```

`continue` abruptly terminates all enclosing computations until it is handled.

```
Funcon handle-continue( $_ : \Rightarrow \text{null-type}$ ) :  $\Rightarrow \text{null-type}$ 
```

`handle-continue( $X$ )` terminates normally when  $X$  terminates abruptly for the reason `continued`.

```
Rule 
$$\frac{X \xrightarrow{\text{abrupted}(\ )} X'}{\text{handle-continue}(X) \xrightarrow{\text{abrupted}(\ )} \text{handle-continue}(X')}$$

```

```
Rule 
$$\frac{X \xrightarrow{\text{abrupted}(\text{continued})} \_}{\text{handle-continue}(X) \xrightarrow{\text{abrupted}(\ )} \text{null-value}}$$

```

```
Rule 
$$\frac{X \xrightarrow{\text{abrupted}(V:\sim \text{continuing})} X'}{\text{handle-continue}(X) \xrightarrow{\text{abrupted}(V)} \text{handle-continue}(X')}$$

```

```
Rule 
$$\text{handle-continue}(\text{null-value}) \rightsquigarrow \text{null-value}$$

```

---

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