

## EVal<sup>11,40</sup>

EventsWithValues

$$\equiv_{\text{def}} E:\text{Type}$$

- $\times (eq:\text{EqDecider}(E))$
- $\times pred?:(E \rightarrow (?E))$
- $\times info:(E \rightarrow ((:Id \times Id) + (:IdLnk \times E) \times Id)))$
- $\times oaxioms:\text{EOrderAxioms}(E; pred?; info)$
- $\times T:(Id \rightarrow Id \rightarrow \text{Type})$
- $\times when:(x:Id \rightarrow e:E \rightarrow T(\text{loc}(e),x))$
- $\times after:(x:Id \rightarrow e:E \rightarrow T(\text{loc}(e),x))$
- $\times axiom:(\forall e:E. (\neg(\uparrow \text{first}(e))) \Rightarrow (\forall x:Id. when(x,e) = after(x,pred(e))))$
- $\times V:(\text{Knd} \rightarrow Id \rightarrow \text{Type})$
- $\times (val:(e:E \rightarrow V(\text{kind}(e),\text{loc}(e))))$
- $\times \text{Top})$

*clarification:*

EventsWithValues{i}

$$\equiv_{\text{def}} E:\text{Type}\{i\}$$

- $\times (eq:\text{EqDecider}(E))$
- $\times pred?:(E \rightarrow (E + \text{Unit}))$
- $\times info:(E \rightarrow ((:Id \times Id) + (:IdLnk \times E) \times Id)))$
- $\times oaxioms:\text{EOrderAxioms}\{i\}(E;$
- $\quad pred?;$
- $\quad info)$
- $\times T:(Id \rightarrow Id \rightarrow \text{Type}\{i\})$
- $\times when:(x:Id \rightarrow e:E \rightarrow T(\text{loc}(info;e),x))$
- $\times after:(x:Id \rightarrow e:E \rightarrow T(\text{loc}(info;e),x))$
- $\times axiom:(\forall e:E.$
- $\quad (\neg(\uparrow \text{first}(pred?;e)))$
- $\quad \Rightarrow (\forall x:Id. when(x,e) = after(x,pred(pred?;e)) \in T(\text{loc}(info;e),x)))$
- $\times V:(\text{Knd} \rightarrow Id \rightarrow \text{Type}\{i\})$
- $\times (val:(e:E \rightarrow V(\text{kind}(info;e),\text{loc}(info;e))))$
- $\times \text{Top})$