

val-axiom_wf^{0,22}

$\forall E:\text{Type}, \text{pred?}:(E \rightarrow (E + \text{Unit})), \text{info}:(E \rightarrow (\text{Id} \times \text{Id} + (\text{IdLnk} \times E) \times \text{Id})), V:(\text{Id} \rightarrow \text{Id} \rightarrow \text{Type}),$
 $M:(\text{IdLnk} \rightarrow \text{Id} \rightarrow \text{Type}), T:(\text{Id} \rightarrow \text{Id} \rightarrow \text{Type}), \text{init}:(i, x:\text{Id} \rightarrow T(i, x)),$
 $\text{Trans}:(i:\text{Id} \rightarrow k:\text{Knd} \rightarrow \text{kindcase}(k; a.V(i, a); l, t.M(l, t)) \rightarrow (x:\text{Id} \rightarrow T(i, x)) \rightarrow (x:\text{Id} \rightarrow T(i, x))),$
 $\text{Choose}:(i, a:\text{Id} \rightarrow (x:\text{Id} \rightarrow T(i, x)) \rightarrow (V(i, a) + \text{Unit})),$
 $\text{Send}:(i:\text{Id} \rightarrow k:\text{Knd} \rightarrow \text{kindcase}(k; a.V(i, a); l, t.M(l, t)) \rightarrow (x:\text{Id} \rightarrow T(i, x)) \rightarrow (\text{Msg}(M) \text{ List})),$
 $\text{val}:(e:E \rightarrow \text{kindcase}(\text{kind}(e); a.V(\text{loc}(e), a); l, t.M(l, t))).$
 $(\forall e:E. \neg \text{first}(e) \Rightarrow \text{loc}(\text{pred}(e)) = \text{loc}(e) \in \text{Id})$
 $\Rightarrow \text{SWellFounded}(\text{pred!}(e; e'))$
 $\Rightarrow \text{val-axiom}(E; V; M; \text{info}; \text{pred?}; \text{init}; \text{Trans}; \text{Choose}; \text{Send}; \text{val}) \in \text{Prop}$