

## better-sends\_wf<sup>11,40</sup>

$\forall E:\text{Type}, dE:\text{EqDecider}(E), dL:\text{EqDecider}(\text{IdLnk}), V:(\text{Knd} \rightarrow \text{Id} \rightarrow \text{Type}), \text{pred?}:(E \rightarrow (?E)),$   
 $\text{info}:(E \rightarrow ((:\text{Id} \times \text{Id}) + (:(:\text{IdLnk} \times E) \times \text{Id}))), \text{val}:(e:E \rightarrow V(\text{kind}(e), \text{loc}(e))),$   
 $p:(\forall e:E, l:\text{IdLnk}.$   
     $\exists e':E$   
         $(\forall e'':E.$   
             $(\uparrow \text{rcv?}(e''))$   
             $\Rightarrow (\text{sender}(e'') = e)$   
             $\Rightarrow (\text{link}(e'') = l)$   
             $\Rightarrow (((e'' = e') \vee e'' < e') \wedge (\text{loc}(e') = \text{destination}(l) \in \text{Id}))),$   
     $e:E, l:\text{IdLnk}.$   
 $\text{SWellFounded}((\neg(\uparrow \text{first}(y))) \text{ c} \wedge (x = \text{pred}(y) \in E))$   
 $\Rightarrow (\text{sends}(dE; dL; \text{pred?}; \text{info}; \text{val}; p; e; l)$   
     $\in (\text{Msg\_sub}(l; (\lambda l, tg. V(\text{rcv}(l, tg), \text{destination}(l)))) \text{ List}))$