

index_wf^{11,40}

$\forall E, X_1, X_2: \text{Type}, dE: \text{EqDecider}(E), dL: \text{EqDecider}(\text{IdLnk}), pred?: (E \rightarrow (?E)),$
 $info: (E \rightarrow ((:\text{Id} \times X_1) + (:(:\text{IdLnk} \times E) \times X_2))),$
 $p: (\forall e: E, l: \text{IdLnk}.$
 $\exists e': E$
 $(\forall e'': E.$
 $(\uparrow \text{rcv?}(e''))$
 $\Rightarrow (\text{sender}(e'') = e)$
 $\Rightarrow (\text{link}(e'') = l)$
 $\Rightarrow (((e'' = e') \vee e'' < e') \wedge (\text{loc}(e') = \text{destination}(l) \in \text{Id})))$).

$\text{SWellFounded}(\text{pred!}(e; e'))$
 $\Rightarrow (\forall e: E. (\neg(\uparrow \text{first}(e))) \Rightarrow (\text{loc}(\text{pred}(e)) = \text{loc}(e) \in \text{Id}))$
 $\Rightarrow (\forall e, e': E. (\text{loc}(e) = \text{loc}(e') \in \text{Id}) \Rightarrow (\text{pred?}(e) = \text{pred?}(e')) \Rightarrow (e = e'))$
 $\Rightarrow (\forall r: E.$
 $(\uparrow \text{rcv?}(r))$
 $\Rightarrow (\text{index}(dE; dL; pred?; info; p; r)$
 $\in \text{int_seg}(0; \|\text{receives}(dE; dL; pred?; info; p; \text{sender}(r); \text{link}(r))\|))$