

ecl-machine3-realizes^{11,40}

$\forall ds:\text{fpf}(\text{Id}; x.\text{Type}), da:\text{fpf}(\text{Knd}; k.\text{Type}), x:\text{Id}, T:\text{Type}, ks:(\text{Knd List}),$
 $a:(\mathbb{N} \rightarrow (k:\{\text{Knd} \mid (k \in ks)\} \rightarrow \text{decl-state}(ds) \rightarrow \text{ma-valtype}(da; k) \rightarrow T \rightarrow \mathbb{B})), snd:\text{msg-spec}(ds;$
 $da),$

$i:\text{Id}.$
 $\text{normal-type}\{i:l\}$
 (T)
 $\Rightarrow \text{normal-ds}\{i:l\}$
 (ds)
 $\Rightarrow \text{normal-da}\{i:l\}$
 (da)
 $\Rightarrow \text{L.all}(ks; \text{Knd}; k.(\uparrow \text{isrcv}(k)) \Rightarrow (i = \text{destination}(\text{lnk}(k)) \in \text{Id}))$
 $\Rightarrow \text{msg-spec-loc-decl}(snd; i; da)$
 $\Rightarrow \text{L.all}(ks; \text{Knd}; k.(\uparrow \text{fpf-dom}(\text{Kind-deq}; k; da)))$
 $\Rightarrow (\neg(\uparrow \text{fpf-dom}(\text{id-deq}; x; ds)))$
 $\Rightarrow \text{R-realizes}\{i:l\}$
 $(\text{ecl-machine3}(ds; da; x; T; ks; a; snd);$
 $es.\text{L.all}(\text{remove-repeats}(\text{idlnk-deq}; \text{msg-spec-links}(snd));$
 $\text{IdLnk};$
 $l.(\text{es-decls}(es;\text{source}(l);\text{fpf-join}(\text{id-deq}; ds; \text{fpf-single}(x; T));da)$
 $\Rightarrow \text{with decls } \text{fpf-join}(\text{id-deq}; ds; \text{fpf-single}(x; T))$
 da
 $\text{sends on } l \text{ from } e$
 $\text{include if } \text{deq-member}(\text{Kind-deq}; \text{es-kind}(es; e); ks)$
 $\text{then tagged-list-messages}(\text{es-state-when}(es; e);$
 $\text{es-val}(es; e);$
 $(\text{ecl-m3}(a; snd; x; l)$
 $(\text{es-kind}(es; e))))$
 $\text{else } []$
 fi
 $\text{and only these for tags in } \text{ecl-tags}(l; snd))))$