

sends-rule0^{0,22}

$\forall tg:\text{Id}, k:\text{Knd}, l:\text{IdLnk}, T, B:\text{Type}, f:(B \rightarrow (T \text{ List})).$
 $(\text{rcv}(l, tg) = k \Rightarrow T = B)$
 $\Rightarrow @\text{source}(l): \text{ma-single-sends0}(B; T; k; l; tg; f) \in \text{Dsys}$
 $\& (\forall D:\text{Dsys}.$
 $@source(l): \text{ma-single-sends0}(B; T; k; l; tg; f) \subseteq D$
 $\Rightarrow D$
 $\text{realizes } es.$
 $(\forall e:\mathbb{E}. \text{loc}(e) = \text{source}(l) \in \text{Id} \Rightarrow \text{kind}(e) = k \in \text{Knd} \Rightarrow \text{valtype}(e) \subseteq \rho B)$
 $\& (\forall e:\mathbb{E}. \text{kind}(e) = \text{rcv}(l, tg) \in \text{Knd} \Rightarrow \text{valtype}(e) \subseteq \rho T)$
 $\& (\forall e:\mathbb{E}.$
 $\text{loc}(e) = \text{source}(l) \in \text{Id}$
 $\Rightarrow \text{kind}(e) = k \in \text{Knd}$
 $\Rightarrow (\exists L:\{e':\mathbb{E} \mid \text{kind}(e') = \text{rcv}(l, tg) \in \text{Knd}\} \text{ List}.$
 $(\forall e':\mathbb{E}. (e' \in L) \Leftrightarrow \text{kind}(e') = \text{rcv}(l, tg) \in \text{Knd} \& \text{sender}(e') = e \in \mathbb{E})$
 $\& (\forall e_1, e_2:\mathbb{E}. e_1 \text{ before } e_2 \in L \Rightarrow (e_1 < \text{loc } e_2))$
 $\& \text{map}(\lambda e'. \text{val}(e'); L) = f(\text{val}(e)) \in T \text{ List}))$