

## usends1-function<sup>11,40</sup>

$\forall k:\text{Knd}, T, B:\text{Type}, l:\text{IdLnk}, ds:x:\text{Id} \text{ fp} \rightarrow \text{Type}, tg:\text{Id}, f:(\text{State}(ds) \rightarrow T \rightarrow B), es:\text{ES}.$   
 $\text{usends1-p}(es;ds;k;T;l;tg;B;f)$   
 $\Rightarrow (\exists g:\{e:\text{E} \mid \text{loc}(e) = \text{source}(l) \in \text{Id} \ \& \ \text{kind}(e) = k\} \rightarrow \text{E}$   
 $(\forall e:\{e:\text{E} \mid \text{loc}(e) = \text{source}(l) \in \text{Id} \ \& \ \text{kind}(e) = k\} .$   
 $(\text{kind}(g(e)) = \text{rcv}(l,tg) \in \text{Knd})$   
 $c \wedge (\text{sender}(g(e)) = e$   
 $\ \& \ (\forall e'':\text{E}. (\text{kind}(e'') = \text{rcv}(l,tg) \in \text{Knd}) \Rightarrow (\text{sender}(e'') = e) \Rightarrow (e'' = g(e)))$   
 $\ \& \ \text{val}(g(e)) = f((\text{state when } e), \text{val}(e))))$