

usends1-p^{11,40}

$$\begin{aligned}
& \text{usends1-p}(es; ds; k; T; l; tg; B; f) \\
& \equiv_{\text{def}} ((\forall x:\text{Id}. \text{subtype_rel}(\text{es-vartype}(es; \text{source}(l); x); \text{fpf-cap}(ds; \text{id-deq}; x; \text{top}))) \\
& \quad \wedge \text{alle-at}(es; \\
& \quad \quad \text{source}(l); \\
& \quad \quad e.((\text{es-kind}(es; e) = k) \Rightarrow \text{subtype_rel}(\text{es-valtype}(es; e); T))) \\
& \quad \wedge (\forall e:\text{es-E}(es). (\text{es-kind}(es; e) = \text{rcv}(l, tg)) \Rightarrow \text{subtype_rel}(\text{es-valtype}(es; e); B))) \\
& \quad c \wedge \text{alle-at}(es; \\
& \quad \quad \text{source}(l); \\
& \quad \quad e.((\text{es-kind}(es; e) = k) \\
& \quad \quad \Rightarrow (\exists e':\text{es-E}(es) \\
& \quad \quad \quad ((\text{es-kind}(es; e') = \text{rcv}(l, tg)) \\
& \quad \quad \quad c \wedge ((\text{es-sender}(es; e') = e) \\
& \quad \quad \quad \quad \wedge (\forall e'':\text{es-E}(es). \\
& \quad \quad \quad \quad \quad (\text{es-kind}(es; e'') = \text{rcv}(l, tg)) \\
& \quad \quad \quad \quad \quad \Rightarrow (\text{es-sender}(es; e'') = e) \\
& \quad \quad \quad \quad \quad \Rightarrow (e'' = e')) \\
& \quad \quad \quad \quad \wedge (\text{es-val}(es; e') = f(\text{es-state-when}(es; e), \text{es-val}(es; e)))))))
\end{aligned}$$

clarification:

$$\begin{aligned}
& \text{usends1-p}(es; ds; k; T; l; tg; B; f) \\
& \equiv_{\text{def}} ((\forall x:\text{Id}. \text{subtype_rel}(\text{es-vartype}(es; \text{source}(l); x); \text{fpf-cap}(ds; \text{id-deq}; x; \text{top}))) \\
& \quad \wedge \text{alle-at}(es; \\
& \quad \quad \text{source}(l); \\
& \quad \quad e.((\text{es-kind}(es; e) = k \in \text{Knd}) \Rightarrow \text{subtype_rel}(\text{es-valtype}(es; e); T))) \\
& \quad \wedge (\forall e:\text{es-E}(es). \\
& \quad \quad (\text{es-kind}(es; e) = \text{rcv}(l, tg) \in \text{Knd}) \Rightarrow \text{subtype_rel}(\text{es-valtype}(es; e); B))) \\
& \quad c \wedge \text{alle-at}(es; \\
& \quad \quad \text{source}(l); \\
& \quad \quad e.((\text{es-kind}(es; e) = k \in \text{Knd}) \\
& \quad \quad \Rightarrow (\exists e':\text{es-E}(es) \\
& \quad \quad \quad ((\text{es-kind}(es; e') = \text{rcv}(l, tg) \in \text{Knd}) \\
& \quad \quad \quad c \wedge ((\text{es-sender}(es; e') = e \in \text{es-E}(es)) \\
& \quad \quad \quad \quad \wedge (\forall e'':\text{es-E}(es). \\
& \quad \quad \quad \quad \quad (\text{es-kind}(es; e'') = \text{rcv}(l, tg) \in \text{Knd}) \\
& \quad \quad \quad \quad \quad \Rightarrow (\text{es-sender}(es; e'') = e \in \text{es-E}(es)) \\
& \quad \quad \quad \quad \quad \Rightarrow (e'' = e' \in \text{es-E}(es))) \\
& \quad \quad \quad \quad \wedge (\text{es-val}(es; e') = f(\text{es-state-when}(es; e), \text{es-val}(es; e)) \in B)))))) \\
& \quad)
\end{aligned}$$