discrete-weak-precond-send-p[11,40]

discrete-weak-precond-send-p(es;T;A;l;tg;a;ds;P;f)
$\equiv_{\text{def}}$ (($\forall x$:Id. vartype(source(l);x) $\subseteq$r ds(x)?Top)
& $\forall e$@source(l). (kind(e) = locl(a)) $\Rightarrow$ (valtype(e) $\subseteq$r A)
& ($\forall e$:E. (kind(e) = rcv(l,tg)) $\Rightarrow$ (valtype(e) $\subseteq$r T)))
c$\wedge$ (@source(l) discrete ds
$\Rightarrow$ (($\forall e'$:E.
(kind(e') = rcv(l,tg))
$\Rightarrow$ ((kind(sender(e')) = locl(a))
c$\wedge$ (($\uparrow$(P((discrete state when sender(e')))))
& val(e') = f((state when sender(e')),val(sender(e'))))))
& $\forall e$@source(l).
$\exists e'$:E
(e c$\leq$ e'
& (((kind(e') = rcv(l,tg)) c$\wedge$ e $\leq$loc sender(e'))
$\vee$ ((loc(e') = source(l)) c$\wedge$ ($\neg$($\uparrow$(P((discrete state after e'))))))))))

clarification:

discrete-weak-precond-send-p(es;T;A;l;tg;a;ds;P;f)
$\equiv_{\text{def}}$ (($\forall x$:Id. es-vartype(es; source(l); x) $\subseteq$r fpf-cap(ds;IdDeq;x;Top))
& alle-at(es;source(l);e.(es-kind(es; e) = locl(a) $\in$ Knd)
$\Rightarrow$ (es-valtype(es; e) $\subseteq$r A))
& ($\forall e$:es-E(es). (es-kind(es; e) = rcv(l,tg) $\in$ Knd) $\Rightarrow$ (es-valtype(es; e) $\subseteq$r T)))
c$\wedge$ (es-dds(es;source(l);ds)
$\Rightarrow$ (($\forall e'$:es-E(es).
(es-kind(es; e') = rcv(l,tg) $\in$ Knd)
$\Rightarrow$ ((es-kind(es; es-sender(es; e')) = locl(a) $\in$ Knd)
c$\wedge$ (($\uparrow$(P(es-dstate-when(es;es-sender(es; e')))))
& es-val(es; e')
=
f(es-state-when(es;es-sender(es; e')),es-val(es; es-sender(es; e')))
$\in$ T)))
& alle-at(es;source(l);e.$\exists e'$:es-E(es)
(es-causle(es;e;e')
& (((es-kind(es; e') = rcv(l,tg) $\in$ Knd)
c$\wedge$ es-le(es;e;es-sender(es; e')))
$\vee$ ((es-loc(es; e') = source(l) $\in$ Id)
c$\wedge$ ($\neg$($\uparrow$(P(es-dstate-after(es;e'))))))))))

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http://www.nuprl.org/FDLcontent/p0_963683_/p37_472173_{discrete-weak-precond-send-p}.html