

## R-Feasible<sup>11,40</sup>

R-Feasible $\{i:l\}$   
( $R$ )

$\equiv_{\text{def}}$  es\_realizer\_ind( $R$ ;  
 True;  
 left,right,rec<sub>1</sub>,rec<sub>2</sub>.(rec<sub>1</sub>  $\wedge$  rec<sub>2</sub>  $\wedge$  R-compat $\{i:l\}$ (left; right));  
 loc,T,x,v.True;  
 loc,T,x,L.normal-type $\{i:l\}$   
 ( $T$ );  
 lnk,tag,L.True;  
 loc,ds,knd,T,x.f.((normal-ds $\{i:l\}$ (ds)  $\wedge$  normal-type $\{i:l\}$ ( $T$ ))  
 $\wedge$  (( $\uparrow$ isrcv(knd))  $\Rightarrow$  (loc = destination(lnk(knd)))));  
 ds,knd,T,l,dt,g.((( $\uparrow$ isrcv(knd))  
 $\Rightarrow$  ((( $\uparrow$ eq\_lnk(lnk(knd); l))  
 $\Rightarrow$  ( $T$  = fpf-cap(dt; id-deq; tag(knd); void)))  
 $\wedge$  (destination(lnk(knd)) = source(l))))  
 $\wedge$  (normal-type $\{i:l\}$ ( $T$ )  $\wedge$  normal-ds $\{i:l\}$ (ds))  
 $\wedge$  normal-ds $\{i:l\}$   
 ( $dt$ );  
 loc,ds,a,T,P.normal-ds $\{i:l\}$   
 ( $ds$ );  
 loc,k,L.True;  
 loc,k,L.True;  
 loc,x,L.True)

clarification:

R-Feasible $\{i:l\}$   
( $R$ )

$\equiv_{\text{def}}$  es\_realizer\_ind( $R$ ;  
 True;  
 left,right,rec<sub>1</sub>,rec<sub>2</sub>.(rec<sub>1</sub>  $\wedge$  rec<sub>2</sub>  $\wedge$  R-compat $\{i:l\}$ (left; right));  
 loc,T,x,v.True;  
 loc,T,x,L.normal-type $\{i:l\}$   
 ( $T$ );  
 lnk,tag,L.True;  
 loc,ds,knd,T,x.f.((normal-ds $\{i:l\}$ (ds)  $\wedge$  normal-type $\{i:l\}$ ( $T$ ))  
 $\wedge$  (( $\uparrow$ isrcv(knd))  $\Rightarrow$  (loc = destination(lnk(knd))  $\in$  Id)));  
 ds,knd,T,l,dt,g.((( $\uparrow$ isrcv(knd))  
 $\Rightarrow$  ((( $\uparrow$ eq\_lnk(lnk(knd); l))  
 $\Rightarrow$  ( $T$   
 =  
 fpf-cap(dt; id-deq; tag(knd); void)

$$\begin{aligned}
& \in \text{Type}\{i\}) \\
& \wedge (\text{destination}(\text{lnk}(knd)) = \text{source}(l) \in \text{Id})) \\
& \wedge (\text{normal-type}\{i:l\}(T) \wedge \text{normal-ds}\{i:l\}(ds)) \\
& \wedge \text{normal-ds}\{i:l\} \\
& \quad (dt); \\
& \text{loc}, ds, a, T, P. \text{normal-ds}\{i:l\} \\
& \quad (ds); \\
& \text{loc}, k, L. \text{True}; \\
& \text{loc}, k, L. \text{True}; \\
& \text{loc}, x, L. \text{True})
\end{aligned}$$