

R-base-ma^{0,22}

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R-base-ma( $R$ )
 $\equiv_{\text{def}}$  case  $R$  of
  Rnone =>
    Rplus( $left, right$ ) =>  $rec_1, rec_2$ .
    Rinit( $loc, T, x, v$ ) =>  $x : T$  initially  $x = v$ 
    Rframe( $loc, T, x, L$ ) => only members of  $L$  affect  $x : T$ 
    Rsframe( $lnk, tag, L$ ) => only  $L$  sends on ( $lnk$  with  $tag$ )
    Reflect( $loc, ds, knd, T, x, f$ ) => with declarations
      ds:ds
      da:knd :  $T$ 
      effect of  $knd(v)$  is  $x := f \ s \ v$ 
      Rsends( $ds, knd, T, l, dt, g$ ) => with declarations
        ds:ds
        da:knd :  $T \oplus \text{lnk-decl}(l; dt)$ 
         $knd(v)$  sends  $g \ s \ v$  on link  $l$ 
      Rpre( $loc, ds, a, T, P$ ) => (with ds:  $ds$ 
        action  $a: T$ 
        precondition  $a(v)$  is
           $P \ s \ v$ )
      Raframe( $loc, k, L$ ) =>  $k$  affects only members of  $L$ 
      Rbframe( $loc, k, L$ ) =>  $k$  sends only on links in  $L$ 
      Rrframe( $loc, x, L$ ) => only members of  $L$  read  $x$ 

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clarification:

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R-base-ma( $R$ )
 $\equiv_{\text{def}}$  case  $R$  of
  Rnone =>
    Rplus( $left, right$ ) =>  $rec_1, rec_2$ .
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    Rframe( $loc, T, x, L$ ) => only members of  $L$  affect  $x : T$ 
    Rsframe( $lnk, tag, L$ ) => only  $L$  sends on ( $lnk$  with  $tag$ )
    Reflect( $loc, ds, knd, T, x, f$ ) => with declarations
      ds:ds
      da:knd :  $T$ 
      effect of  $knd(v)$  is  $x := f \ s \ v$ 
      Rsends( $ds, knd, T, l, dt, g$ ) => with declarations
        ds:ds
        da:fpt-join(KindDeq;  $knd : T; \text{lnk-decl}(l; dt)$ )
         $knd(v)$  sends  $g \ s \ v$  on link  $l$ 
      Rpre( $loc, ds, a, T, P$ ) => (with ds:  $ds$ 
        action  $a: T$ 

```

precondition $a(v)$ is

$P \in v$)

Raframe(loc, k, L) $\Rightarrow k$ affects only members of L

Rbframe(loc, k, L) $\Rightarrow k$ sends only on links in L

Rrframe(loc, x, L) \Rightarrow only members of L read x