R-frame-compat^{0,22}

R-frame-compat(A;B)
$\equiv_{\text{def}}$ if Reffect?(A)$\rightarrow$
  if Rframe?(B)$\rightarrow$ Rframe-x(B) = Reffect-x(A) $\Rightarrow$ (Reffect-knd(A) $\in$ Rframe-L(B))
  ; Raframe?(B)$\rightarrow$ Raframe-k(B) = Reffect-knd(A) $\Rightarrow$ (Reffect-x(A) $\in$ Raframe-L(B))
  ; Rrframe?(B)$\rightarrow$
    Rrframe-x(B) $\in$ dom(Reffect-ds(A)) $\Rightarrow$ (Reffect-knd(A) $\in$ Rrframe-L(B))
  else True fi
; Rsends?(A)$\rightarrow$
  if Rsframe?(B)$\rightarrow$
    Rsframe-lnk(B) = Rsends-l(A)
    $\Rightarrow$ (Rsframe-tag(B) $\in$ map(λp.1of(p);Rsends-g(A)))
    $\Rightarrow$ (Rsends-knd(A) $\in$ Rsframe-L(B))
  ; Rbframe?(B)$\rightarrow$ Rbframe-k(B) = Rsends-knd(A) $\Rightarrow$ (Rsends-l(A) $\in$ Rbframe-L(B))
  ; Rrframe?(B)$\rightarrow$ Rrframe-x(B) $\in$ dom(Rsends-ds(A)) $\Rightarrow$ (Rsends-knd(A) $\in$ Rrframe-L(B))
  else True fi
; Rpre?(A)$\rightarrow$
  if Rrframe?(B)$\rightarrow$ Rrframe-x(B) $\in$ dom(Rpre-ds(A)) $\Rightarrow$ (locl(Rpre-a(A)) $\in$ Rrframe-L(B))
  else True fi
else True fi

clarification:

R-frame-compat(A;B)
$\equiv_{\text{def}}$ if Reffect?(A)$\rightarrow$
  if Rframe?(B)$\rightarrow$
    Rframe-x(B) = Reffect-x(A) $\in$ Id $\Rightarrow$ (Reffect-knd(A) $\in$ Rframe-L(B) $\in$ Knd)
  ; Raframe?(B)$\rightarrow$
    Raframe-k(B) = Reffect-knd(A) $\in$ Knd $\Rightarrow$ (Reffect-x(A) $\in$ Raframe-L(B) $\in$ Id)
  ; Rrframe?(B)$\rightarrow$
    fpf-dom(IdDeq; Rrframe-x(B); Reffect-ds(A))
    $\Rightarrow$ (Reffect-knd(A) $\in$ Rrframe-L(B) $\in$ Knd)
  else True fi
; Rsends?(A)$\rightarrow$
  if Rsframe?(B)$\rightarrow$
    Rsframe-lnk(B) = Rsends-l(A) $\in$ IdLnk
    $\Rightarrow$ (Rsframe-tag(B) $\in$ map(λp.1of(p);Rsends-g(A)) $\in$ Id)
    $\Rightarrow$ (Rsends-knd(A) $\in$ Rsframe-L(B) $\in$ Knd)
  ; Rbframe?(B)$\rightarrow$
    Rbframe-k(B) = Rsends-knd(A) $\in$ Knd $\Rightarrow$ (Rsends-l(A) $\in$ Rbframe-L(B) $\in$ IdLnk)
  ; Rrframe?(B)$\rightarrow$
    fpf-dom(IdDeq; Rrframe-x(B); Rsends-ds(A))
    $\Rightarrow$ (Rsends-knd(A) $\in$ Rrframe-L(B) $\in$ Knd)

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  else True fi
; Rpre?(A)→
  if Rrframe?(B)→
    fpf-dom(IdDeq; Rrframe-x(B); Rpre-ds(A))
    ⇒ (locl(Rpre-a(A)) ∈ Rrframe-L(B) ∈ Knd)
  else True fi
else True fi
```

http://www.cs.cornell.edu/Info/Projects/NuPrl/FDLcontent/p0_286125_/p23_407373_{R-frame-compat}.html