

realizability^{0,22}

STM: R-consistent-Rall

ABS: $R \Vdash es.P(es)$ **R-realizes**

STM: R-realizes_wf

STM: R-true-rule

STM: R-and-rule

STM: R-none-rule

STM: R-implies-rule

STM: R-all-rule

STM: R-all-rule2

STM: R-and-left

STM: R-init-rule

STM: R-frame-rule

STM: R-sframe-rule

STM: R-iframe-rule

STM: R-bframe-rule

STM: R-rframe-rule

STM: R-effect-rule

STM: R-pre-rule

STM: R-sends-rule

STM: R-usends1-rule

ABS: R-state-var($i;ds;da;x;T;ks;tr$) **R-state-var**

STM: R-state-var_wf

STM: R-state-var-rule

STM: R-state-var-loc

STM: R-state-var-da

STM: R-state-var-da-dom
 STM: R-sub-implies
 ABS: $\vdash_{es}.P(es)$ **es-real**
 STM: es-real_wf
 ABS: es-realizer(p) **es-realizer**
 STM: es-realizer_wf
 STM: implies-es-real
 STM: es-real-implies
 ABS: es-real-and $\{i:l\}(P;Q;X;Y;p)$ **es-real-and**
 STM: es-real-and_wf
 STM: init-p-realizable
 STM: frame-p-realizable
 STM: sframe-p-realizable
 STM: effect-p-realizable
 STM: pre-p-realizable
 ABS: preinit1R $\{\$x:ut2, \$a:ut2\}(i; X; T; x_0; P)$ **preinit1R**
 STM: preinit1R_wf
 STM: preinit1R_feasible
 STM: pre-init1-p-realizable
 STM: usends1-p-realizable
 STM: sends-p-realizable
 ABS: R-base-recognize($i;ds;x;k;T;test$) **R-base-recognize**
 STM: R-base-recognize_wf
 STM: R-base-recognize-realizes
 STM: R-state-da-rule
 STM: R-compat-state
 STM: R-effect-compat

STM: R-compat-base-recognize
 STM: not-R-occurs-effect-compat
 STM: R-state-var-compat
 STM: R-state-var-compat2
 STM: R-state-var-compat3
 STM: R-state-var-compat-unequal-loc
 ABS: R-state-var-init($i; ds; da; x; T; v; ks; tr$) **R-state-var-init**
 STM: R-state-var-init_wf
 STM: R-state-var-init-rule
 STM: R-state-var-init-compat
 STM: sends-p-es-sends-iff
 STM: R-lnk-tags-rule
 STM: R-state-var-lnk-tags-compat
 STM: R-state-var-lnk-tags-compat2
 ABS: $\text{constR}\{\$x:\text{ut2}\}(T; c; i)$ **constR**
 STM: constR_wf
 STM: constR_feasible
 STM: const_realizable
 ABS: $\text{onceR}\{\$a:\text{ut2}, \$done:\text{ut2}\}(i)$ **onceR**
 STM: onceR_wf
 STM: onceR_feasible
 STM: once_realizable
 ABS: $\text{send_onceR}\{\$done:\text{ut2}, \$tg:\text{ut2}, \$b:\text{ut2}, \$done1:\text{ut2}\}(T; A; f; l)$ **send_onceR**
 STM: send_onceR_wf
 STM: $\text{send_onceR_feasible}$
 STM: $\text{send_once_realizable}$
 ABS: at $\text{src}(l):\text{action } \$a(m)$ precondition P sends $[\$tg, f]$ on link l **weakPrecondSendR**

STM: weakPrecondSendR_wf

STM: weakPrecondSendR_feasible

STM: weak-precond-send-realizable

STM: decidable-min-lemma

ABS: sendMinimalR{\$a:ut2, \$tg:ut2}(T; l; ds_1; ds_2; P; Q; f) **sendMinimalR**

STM: sendMinimalR_wf

STM: sendMinimalR_feasible

STM: send-minimal-realizable