

SES-implies-ES^{0,22}

$\forall E:\text{Type}, eq:\text{EqDecider}(E), T:(\text{Id}\rightarrow\text{Id}\rightarrow\text{Type}), V:(\text{Knd}\rightarrow\text{Id}\rightarrow\text{Type}),$
 $info:(E\rightarrow(\text{Id}\times\text{Id}+(\text{IdLnk}\times E)\times\text{Id})), pred?:(E\rightarrow(E+\text{Unit})), val:(e:E\rightarrow V(\text{kind}(e),\text{loc}(e))), when,$
 $after:(x:\text{Id}\rightarrow e:E\rightarrow T(\text{loc}(e),x)), p:\text{SESAxioms}\{i:l\}(E; T; pred?; info; when; after).$
 $\text{ESAxioms}(E;T;\lambda l,tg. V(\text{rcv}(l,tg),\text{destination}(l));$
 $\lambda e.\text{loc}(e);\lambda e.\text{kind}(e);val;$
 $when;after;$
 $\lambda l,e. \text{sends}(eq;\text{IdLnkDeq};pred?;info;val;1\text{of}(p);e;l);\lambda e.\text{sender}(e);\lambda e.$
 $\text{index}(eq;\text{IdLnkDeq};pred?;info;1\text{of}(p);e);$
 $\lambda e.\text{first}(e);\lambda e.\text{pred}(e);$
 $\lambda e,e'. e < e')$