

msga^{0,22}

MsgA

\equiv_{def} $ds:x:\text{Id}$ fp \rightarrow Type
 $\times da:a:\text{Knd}$ fp \rightarrow Type
 $\times x:\text{Id}$ fp $\rightarrow ds(x)?\text{Void}$
 $\times a:\text{Id}$ fp $\rightarrow \text{State}(ds) \rightarrow \text{Valtype}(da;\text{locl}(a)) \rightarrow \text{Prop}$
 $\times kx:\text{Knd} \times \text{Id}$ fp $\rightarrow \text{State}(ds) \rightarrow \text{Valtype}(da;1\text{of}(kx)) \rightarrow ds(2\text{of}(kx))? \text{Void}$
 $\times kl:\text{Knd} \times \text{IdLnk}$ fp \rightarrow
 $(tg:\text{Id} \times (\text{State}(ds) \rightarrow \text{Valtype}(da;1\text{of}(kl)) \rightarrow (da(\text{rcv}(2\text{of}(kl),tg))? \text{Void List})))$ List
 $\times x:\text{Id}$ fp \rightarrow Knd List
 $\times ltg:\text{IdLnk} \times \text{Id}$ fp \rightarrow Knd List
 $\times k:\text{Knd}$ fp \rightarrow Id List
 $\times k:\text{Knd}$ fp \rightarrow IdLnk List
 $\times x:\text{Id}$ fp \rightarrow Knd List
 $\times \text{Top}$

clarification:

msga{i:l}

\equiv_{def} $ds:x:\text{Id}$ fp \rightarrow Type_i
 $\times da:a:\text{Knd}$ fp \rightarrow Type_i
 $\times x:\text{Id}$ fp $\rightarrow \text{fpf-cap}(ds;\text{IdDeq};x;\text{Void})$
 $\times a:\text{Id}$ fp $\rightarrow \text{State}(ds) \rightarrow \text{Valtype}(da;\text{locl}(a)) \rightarrow \text{Prop}_i$
 $\times kx:\text{Knd} \times \text{Id}$ fp $\rightarrow \text{State}(ds) \rightarrow \text{Valtype}(da;1\text{of}(kx)) \rightarrow \text{fpf-cap}(ds;\text{IdDeq};2\text{of}(kx);\text{Void})$
 $\times kl:\text{Knd} \times \text{IdLnk}$ fp \rightarrow
 $(tg:\text{Id}$
 $\times (\text{State}(ds) \rightarrow \text{Valtype}(da;1\text{of}(kl)) \rightarrow$
 $(\text{fpf-cap}(da;\text{KindDeq};\text{rcv}(2\text{of}(kl),tg);\text{Void}) \text{List})))$ List
 $\times x:\text{Id}$ fp \rightarrow Knd List
 $\times ltg:\text{IdLnk} \times \text{Id}$ fp \rightarrow Knd List
 $\times k:\text{Knd}$ fp \rightarrow Id List
 $\times k:\text{Knd}$ fp \rightarrow IdLnk List
 $\times x:\text{Id}$ fp \rightarrow Knd List
 $\times \text{Top}$