

es-local-prior-state^{11,40}

prior-state($f; base; X; e$)
 $\equiv_{\text{def}}$ if $e \in_b \text{prior}(X)$
 then $f(\text{prior-state}(f; base; X; \text{prior}(X)(e)), X(\text{prior}(X)(e)))$
 else $base$
 fi

clarification:

es-local-prior-state{i:l}
 ($es; f; base; X; e$)
 $\equiv_{\text{def}}$ if $e \in_b \text{es-prior-interface}\{i:l\}(es; X)$
 then f
 (es-local-prior-state{i:l}
 ($es; f; base; X; \text{es-prior-interface}\{i:l\}(es; X)(e)$)
 , $X(\text{es-prior-interface}\{i:l\}$
 ($es; X)(e)$))
 else $base$
 fi
(*recursive*)