

last-state-change^{11,40}

$$\begin{aligned}
& \forall es:ES, ds:x:Id \text{ fp} \rightarrow \text{Type}, T:\text{Type}, i:Id, f:(\text{State}(ds) \rightarrow T). \\
& (\forall x, y:T. \text{Dec}(x = y)) \\
& \Rightarrow @i \text{ discrete } ds \\
& \Rightarrow \forall e'@i. \\
& \quad (\forall e < e'. f((\text{discrete state when } e)) = f((\text{discrete state when } e'))) \\
& \quad \vee (\exists e:E \\
& \quad \quad ((e <_{\text{loc}} e') \\
& \quad \quad c \wedge ((\neg(f((\text{discrete state when } e)) = f((\text{discrete state after } e)))) \\
& \quad \quad \& (\forall e'':E. \\
& \quad \quad \quad (e <_{\text{loc}} e'') \\
& \quad \quad \quad \Rightarrow e'' \leq_{\text{loc}} e' \\
& \quad \quad \quad \Rightarrow (f((\text{discrete state when } e'')) = f((\text{discrete state when } e')) \in T))))))
\end{aligned}$$