

next-state-relation^{11,40}

$$\begin{aligned} & \forall es:\text{ES}, ds:x:\text{Id fp} \rightarrow \text{Type}, R:(\text{State}(ds) \rightarrow \text{State}(ds) \rightarrow \mathbb{P}). \\ & (\forall s, s':\text{State}(ds). \text{Dec}(R(s,s'))) \\ \Rightarrow & (\forall e:\{e:\text{E} \mid @\text{loc}(e) \text{ discrete } ds\} . \\ & \quad \exists e' \geq e. R((\text{state when } e), \text{state after } e') \\ \Rightarrow & \quad \exists e' \geq e. R((\text{state when } e), \text{state after } e') \\ & \quad \& \forall e'' \in [e, e']. \neg(R((\text{state when } e), \text{state after } e''))) \end{aligned}$$