

es-update-iff^{0,22}

$$\begin{aligned} & \text{es-update-iff}(es; i; x; ds; e.P(e); s.f(s)) \\ \equiv_{\text{def}} & (\forall x:\text{Id. } \text{vartype}(i; x) \subseteq \rho \text{ } ds(x)?\text{Top}) \\ & \quad \& \forall e@i. \\ & \quad \quad (P(e) \Rightarrow (x \text{ after } e) = f(\text{state when } e)) \& (\neg P(e) \Rightarrow (x \text{ after } e) = (x \text{ when } e)) \end{aligned}$$

clarification:

$$\begin{aligned} & \text{es-update-iff}(es; i; x; ds; e.P(e); s.f(s)) \\ \equiv_{\text{def}} & (\forall x:\text{Id. } \text{es-vartype}(es; i; x) \subseteq \rho \text{ fpf-cap}(ds; \text{IdDeq}; x; \text{Top})) \\ & \quad \& \text{alle-at}(es; i; e.(P(e) \\ & \quad \quad \Rightarrow \text{es-after}(es; x; e) \\ & \quad \quad = \\ & \quad \quad \quad f(\text{es-state-when}(es; e)) \\ & \quad \quad \quad \in \text{fpf-cap}(ds; \text{IdDeq}; x; \text{Top})) \\ & \quad \& (\neg P(e) \Rightarrow \text{es-after}(es; x; e) = \text{es-when}(es; x; e) \in \text{fpf-cap}(ds; \text{IdDeq}; x; \text{Top}))) \end{aligned}$$