

ecl-mng-update^{0,22}

$$\begin{aligned}
& @i[[x; upd]] \\
\equiv_{\text{def}} & \text{es-decls}(es; i; ds; da) \\
& \Rightarrow \forall e @i. \\
& \quad (z \text{ after } e) \\
& \quad = \\
& \quad \text{list_accum}(z', nf.nf/n, f. \\
& \quad \quad \text{if action}[[x \ n]][\text{es-init}(es; e); e] \rightarrow f((\text{state when } e), \text{val}(e)) \\
& \quad \quad \text{else } z' \text{ fi;} \\
& \quad \quad z \text{ when } e; \\
& \quad \quad \text{upd}(\langle \text{kind}(e), z \rangle ? \text{nil})
\end{aligned}$$

clarification:

$$\begin{aligned}
& \text{ecl-mng-update}\{i:l\} \\
& \quad (es; i; ds; da; x; z; upd) \\
\equiv_{\text{def}} & \text{es-decls}(es; i; ds; da) \\
& \Rightarrow \text{alle-at}(es; i; e.\text{es-after}(es; z; e) \\
& \quad = \\
& \quad \text{list_accum}(z', nf.nf/n, f. \\
& \quad \quad \text{if es-bact}\{i:l\} \\
& \quad \quad \quad (ds; da; x; es; n; \text{es-init}(es; e); e) \rightarrow \\
& \quad \quad \quad f(\text{es-state-when}(es; e), \text{es-val}(es; e)) \\
& \quad \quad \text{else } z' \text{ fi;} \\
& \quad \quad \text{es-when}(es; z; e); \\
& \quad \quad \text{fpf-cap}(upd; \text{product-deq}(\text{Knd}; \text{Id}; \text{KindDeq}; \text{IdDeq}); \langle \text{es-kind} \\
& \quad \quad \quad (es; e) \\
& \quad \quad \quad , z \rangle; \text{nil})) \\
& \in \text{fpf-cap}(ds; \text{IdDeq}; z; \text{Top})
\end{aligned}$$