

## es-hist\_wf<sup>11,40</sup>

$$\begin{aligned} & \forall ds:\text{fpf}(\text{Id}; x.\text{Type}), da:\text{fpf}(\text{Knd}; k.\text{Type}), i:\text{Id}, es:\text{event\_system}\{i:l\}. \\ & (\forall x:\text{Id}. \text{subtype\_rel}(\text{es-vartype}(es; i; x); \text{fpf-cap}(ds; \text{id-deq}; x; \text{top}))) \\ & \Rightarrow (\forall e:\text{es-E}(es). \\ & \quad (\text{loc}(e) = i) \\ & \quad \Rightarrow \text{subtype\_rel}(\text{es-valtype}(es; e); \text{fpf-cap}(da; \text{Kind-deq}; \text{es-kind}(es; e); \text{top}))) \\ & \Rightarrow (\forall e_1, e_2:\text{es-E}(es). (\text{loc}(e_2) = i) \Rightarrow (\text{es-hist}\{i:l\}(es; e_1; e_2) \in (\text{event-info}(ds; da) \text{List}))) \end{aligned}$$