

es-lc-bool^{11,40}

$$\begin{aligned} & \forall es:\text{ES}, b:\mathbb{B}, x:\text{Id}, e:\{e:\text{E} \mid @\text{loc}(e)(x:\mathbb{B})\} . \\ & ((x \text{ when } e) = b) \\ & \Rightarrow ((x \text{ initially}@loc(e) = (\neg_b b) \in \mathbb{B}) \vee (\exists e':\text{E}. (e' \leq_{\text{loc}} e \ \& \ (x \text{ when } e') = (\neg_b b) \in \mathbb{B}))) \\ & \Rightarrow (\exists e':\text{E} \\ & \quad ((e' <_{\text{loc}} e) \\ & \quad \ \& \ (x \text{ when } e') = (\neg_b b) \in \mathbb{B} \\ & \quad \ \& \ (x \text{ after } e') = b \\ & \quad \ \& \ \forall e'' \in (e', e]. (x \text{ when } e'') = b \\ & \quad \ \& \ \forall e'' \in [e', e). (x \text{ after } e'') = b)) \end{aligned}$$