

**state\_after\_wf**<sup>11,40</sup>

$\forall E:\text{Type}, T, V:(\text{Id} \rightarrow \text{Id} \rightarrow \text{Type}), M:(\text{IdLnk} \rightarrow \text{Id} \rightarrow \text{Type}), \text{pred?}:(E \rightarrow (?E)),$   
 $\text{info}:(E \rightarrow ((\text{Id} \times \text{Id}) + ((\text{IdLnk} \times E) \times \text{Id}))), \text{init}:(i:\text{Id} \rightarrow \text{EState}(T(i))),$   
 $\text{Trans}:(i:\text{Id} \rightarrow k:\text{Knd} \rightarrow \text{kindcase}(k; a.V(i,a); l,t.M(l,t)) \rightarrow \text{EState}(T(i)) \rightarrow \text{EState}(T(i))),$   
 $\text{val}:(e:E \rightarrow \text{kindcase}(\text{kind}(e); a.V(\text{loc}(e),a); l,t.M(l,t)) \rightarrow \text{EState}(T(i)) \rightarrow \text{EState}(T(i))),$   
 $\text{time}:(E \rightarrow \mathbb{Q}).$   
 $(\forall e:E. (\neg(\uparrow\text{first}(e))) \Rightarrow (\text{loc}(\text{pred}(e)) = \text{loc}(e) \in \text{Id}))$   
 $\Rightarrow \text{SWellFounded}(\text{pred}!(e;e'))$   
 $\Rightarrow (\forall e:E. \text{state\_after}(e) \in \text{EState}(T(\text{loc}(e))))$