

causal-weak-predecessor^{11,40}

$\text{causal-weak-predecessor}(es;p) \equiv_{\text{def}} \forall e:E. (\uparrow \text{can-apply}(p;e) \Rightarrow \text{do-apply}(p;e) \text{ c} \leq e$

clarification:

$\text{causal-weak-predecessor}(es;p)$
 $\equiv_{\text{def}} \forall e:es-E(es). (\uparrow \text{can-apply}(p;e) \Rightarrow \text{es-causle}(es;\text{do-apply}(p;e);e)$