

chain-order-total^{13,45}

$\forall es:ES, Cmd:Type, In:AbsInterface(Cmd), isupdate:(Cmd \rightarrow \mathbb{B}), Sys, Out:AbsInterface(Top).$
 $(E(In) \subseteq_r E(Sys))$
 $\Rightarrow (\forall f:sys\text{-}antecedent(es;Sys), chain:(E(Sys) \rightarrow (Id \text{ List})).$
 $chain\text{-}consistent(f;chain)$
 $\Rightarrow (\forall e, e':E(Sys).$
 $(\neg(\text{loc}(e) = \text{loc}(e') \in Id)) \Rightarrow (\text{loc}(e) << \text{loc}(e') \vee \text{loc}(e') << \text{loc}(e))))$