

Inference at * 2 1 1
of proof for Lemma before_last:

....rewrite subgoal.... NILNIL

1. $T : \text{Type}$
2. $T \text{ List}$
3. $u : T$
4. $v : T \text{ List}$
5. $\forall x:T. (x \in v) \Rightarrow (\neg(x = \text{last}(v))) \Rightarrow x \text{ before } \text{last}(v) \in v$
6. $x : T$
7. $x = u$
8. $\neg(x = \text{last}([u / v]))$
 $\vdash \neg(\uparrow \text{null}(v))$
by ((((((((((ParallelOp (-1))
CollapseTHEN (RW assert_pushdownC (-1)))))))))

CollapseTHENA ((Auto_aux (first_nat 1:n) ((first_nat 1:n),(first_nat 4:n)) (first_tok :t) inil_term)))
CollapseTHEN (HypSubst (-1) 0))
CollapseTHEN (Reduce 0))

CollapseTHEN ((Auto_aux (first_nat 1:n) ((first_nat 1:n),(first_nat 3:n)) (first_tok :t) inil_term)))
CollapseTHEN (Try (((Unfold 'last' 0)
CollapseTHEN (Reduce 0)))

CollapseTHEN ((Auto_aux (first_nat 1:n) ((first_nat 1:n),(first_nat 4:n)) (first_tok :t) inil_term)))

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8. $v = []$
9. $z : T \text{ List}$
 $\vdash \neg(\uparrow \text{null}([u / z]))$

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