

Inference at * 2 1
of proof for Lemma before-adjacent:

1. T : Type
 2. T List
 3. u : T
 4. v : T List
 5. $\forall x, y:T.$
no_repeats(T ; v)
 \Rightarrow adjacent(T ; v ; x ; y)
 $\Rightarrow (\forall z:T. z \text{ before } y \in v \Rightarrow (z \text{ before } x \in v \vee (z = x)))$
 6. x : T
 7. y : T
 8. no_repeats(T ; [u / v])
 9. $0 < \|v\|$
 10. $x = u$ & $y = \text{hd}(v)$
 11. z : T
 12. $z \text{ before } y \in [u / v]$
- $\vdash z \text{ before } x \in [u / v] \vee (z = x)$
by InteriorProof ((RWO "cons_before" (0))
CollapseTHENA (Auto·)).

1:

$$\vdash ((z = u \ \& \ (x \in v)) \vee z \text{ before } x \in v) \vee (z = x)$$

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