Inference at $*$ 1 1 1
of proof for Lemma fseg_extend:

.....subterm..... T:t1:n

1. T : Type
2. l_1 : T List
3. v : T
4. l_2 : T List
5. L : T List
6. $l_2 = (L \mathbin{@} l_1)$
7. $\|l_1\| < \|l_2\|$
8. $l_2[(\|l_2\| - (\|l_1\|+1))] = v$
9. $\neg(\uparrow\text{null}(L))$
10. L' : T List
11. $L = (L' \mathbin{@} [\text{last}(L)])$

$\vdash \text{last}(L) = v$

by (((Assert $0 < \|L\|$)
THENL [(((DVar 'L')
CollapseTHEN (((All Reduce)

CollapseTHEN (Auto'))·))·); Id]·)
CollapseTHEN (((((RevHypSubst (-5) 0)

CollapseTHENA (Auto·))·)
CollapseTHEN (((StrongHypSubst (-7) 0)
CollapseTHENA (((
Auto')
CollapseTHEN (((HypSubst (-1) 0)
CollapseTHEN (Auto'))·))·))·))·))·

1:

12. $0 < \|L\|$

$\vdash \text{last}(L) = (L \mathbin{@} l_1)[(\|L \mathbin{@} l_1\| - (\|l_1\|+1))]$

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