

Inference at \* 2  
of proof for Lemma fseg\_select:

1.  $T$  : Type
2.  $l_1$  :  $T$  List
3.  $l_2$  :  $T$  List
4.  $(\|l_1\| \leq \|l_2\|) \text{ c} \wedge (\forall i:\mathbb{N}. (i < \|l_1\|) \Rightarrow (l_1[i] = l_2[(\|l_2\| - \|l_1\|)+i]))$   
 $\vdash \text{fseg}(T;l_1;l_2)$   
by (D (-1))  
CollapseTHEN (Unfold 'fseg' ( 0).).

1:

4.  $\|l_1\| \leq \|l_2\|$
5.  $\forall i:\mathbb{N}. (i < \|l_1\|) \Rightarrow (l_1[i] = l_2[(\|l_2\| - \|l_1\|)+i])$   
 $\vdash \exists L:T \text{ List. } (l_2 = (L @ l_1))$