

Inference at * 2 1 1 1 1 1 1
of proof for Lemma fast-fib:

....antecedent.... NILNIL

1. $f :$
 $\forall n, a, b : \mathbb{N}.$
 $\{m : \mathbb{N} \mid$
 $\forall k : \mathbb{N}.$
 $(a = \text{fib}(k))$
 $\Rightarrow ((k \leq 0) \Rightarrow (b = 0))$
 $\Rightarrow ((0 < k) \Rightarrow (b = \text{fib}(k - 1)))$
 $\Rightarrow (m = \text{fib}(n+k))\}$
 2. $n : \mathbb{N}$
 3. $v : \mathbb{N}$
 4. $\forall k : \mathbb{N}.$
 $(1 = \text{fib}(k)) \Rightarrow ((k \leq 0) \Rightarrow (0 = 0)) \Rightarrow ((0 < k) \Rightarrow (0 = \text{fib}(k - 1))) \Rightarrow (v = \text{fib}(n+k))$
 5. $f(n, 1, 0) = v$
- $\vdash 1 = \text{fib}(0)$
by (RecUnfold ‘fib’ 0)
CollapseTHEN ((Reduce 0)
THEN (Auto.)·).