

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

....wf.... NILNIL

1. $n : \mathbb{Z}$
 2. $0 < n$
 3. $\forall a, b : \mathbb{N}.$
 $\{m : \mathbb{N} \mid$
 $\forall k : \mathbb{N}.$
 $(a = \text{fib}(k))$
 $\Rightarrow ((k \leq 0) \Rightarrow (b = 0))$
 $\Rightarrow ((0 < k) \Rightarrow (b = \text{fib}(k - 1)))$
 $\Rightarrow (m = \text{fib}((n - 1) + k))\}$
 4. $a : \mathbb{N}$
 5. $b : \mathbb{N}$
 6. $\forall b@_0 : \mathbb{N}.$
 $\{m : \mathbb{N} \mid$
 $\forall k : \mathbb{N}.$
 $(a + b = \text{fib}(k))$
 $\Rightarrow ((k \leq 0) \Rightarrow (b@_0 = 0))$
 $\Rightarrow ((0 < k) \Rightarrow (b@_0 = \text{fib}(k - 1)))$
 $\Rightarrow (m = \text{fib}((n - 1) + k))\}$
- $\vdash a \in \mathbb{N}$
by Auto.

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