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

1. n : $\mathbb{Z}$
2. $0 < n$
3. $\forall a, b{:}\mathbb{N}.$
   $\{m{:}\mathbb{N} \mid$
   $\forall k{:}\mathbb{N}.$
   $(a = \mathrm{fib}(k))$
   $\Rightarrow ((k \leq 0) \Rightarrow (b = 0))$
   $\Rightarrow ((0 < k) \Rightarrow (b = \mathrm{fib}(k - 1)))$
   $\Rightarrow (m = \mathrm{fib}((n - 1)+k))\}$
4. a : $\mathbb{N}$
5. b : $\mathbb{N}$

$\vdash \{m{:}\mathbb{N} \mid$
$\forall k{:}\mathbb{N}.$
$(a = \mathrm{fib}(k))$
$\Rightarrow ((k \leq 0) \Rightarrow (b = 0))$
$\Rightarrow ((0 < k) \Rightarrow (b = \mathrm{fib}(k - 1)))$
$\Rightarrow (m = \mathrm{fib}(n+k))\}$

by (InstHypEval $a+b$ ‘z’ z 3)
CollapseTHENA ((Try ((Complete (Auto’))·))·)·

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6. $\forall b_1{:}\mathbb{N}.$
   $\{m{:}\mathbb{N} \mid$
   $\forall k{:}\mathbb{N}.$
   $(a+b = \mathrm{fib}(k))$
   $\Rightarrow ((k \leq 0) \Rightarrow (b_1 = 0))$
   $\Rightarrow ((0 < k) \Rightarrow (b_1 = \mathrm{fib}(k - 1)))$
   $\Rightarrow (m = \mathrm{fib}((n - 1)+k))\}$

$\vdash \{m{:}\mathbb{N} \mid$
$\forall k{:}\mathbb{N}.$
$(a = \mathrm{fib}(k))$
$\Rightarrow ((k \leq 0) \Rightarrow (b = 0))$
$\Rightarrow ((0 < k) \Rightarrow (b = \mathrm{fib}(k - 1)))$
$\Rightarrow (m = \mathrm{fib}(n+k))\}$

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