Inference at $*$ 1 2 1 2 1 1 2 1
of proof for Lemma less-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. $b : \mathbb{N}$
6. $\forall b@_0{:}\mathbb{N}.$
   $\{m{:}\mathbb{N} \mid$
   $\forall k{:}\mathbb{N}.$
   $(a+b = \mathrm{fib}(k))$
   $\Rightarrow ((k \leq 0) \Rightarrow (b@_0 = 0))$
   $\Rightarrow ((0 < k) \Rightarrow (b@_0 = \mathrm{fib}(k - 1)))$
   $\Rightarrow (m = \mathrm{fib}((n - 1)+k))\}$
7. $m : \mathbb{N}$
8. $\forall k{:}\mathbb{N}.$
   $(a+b = \mathrm{fib}(k))$
   $\Rightarrow ((k \leq 0) \Rightarrow (a = 0))$
   $\Rightarrow ((0 < k) \Rightarrow (a = \mathrm{fib}(k - 1)))$
   $\Rightarrow (m = \mathrm{fib}((n - 1)+k))$
9. $k : \mathbb{N}$
10. $a = \mathrm{fib}(k)$
11. $(k \leq 0) \Rightarrow (b = 0)$
12. $(0 < k) \Rightarrow (b = \mathrm{fib}(k - 1))$
13. $\neg(k = 0)$
14. $\neg(k+1 = 0)$
15. $\neg(k+1 = 1)$

$\vdash a+b = \mathrm{fib}((k+1) - 1)+\mathrm{fib}((k+1) - 2)$
by (EqCD)
CollapseTHEN (Auto·)·

1: .....subterm..... T:t2:n

$\vdash b = \mathrm{fib}((k+1) - 2)$

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