Inference at $*$ 1 1 1
of proof for Lemma comp_nat_ind_tp:

1. $P : \mathbb{N} \to \mathbb{P}\{k\}$
2. $\forall i{:}\mathbb{N}.\ (\forall j{:}\mathbb{N}.\ (j < i) \Rightarrow P(j)) \Rightarrow P(i)$
3. $i : \mathbb{N}$

$\vdash P(i)$

by (%S%
\p. let i = var_of_hyp (get_int_arg 'hn' p) p in

let z = get_distinct_var 'zz' p in
Assert
(mk_all_term z ℕ
(
mk_all_term i ℕ
(mk_implies_term
(mk_less_than_term (mvt i) (
mvt z))
(concl p))))
p)

1: .....assertion..... NILNIL

$\vdash \forall zz,i{:}\mathbb{N}.\ (i < zz) \Rightarrow P(i)$

2:

4. $\forall zz,i{:}\mathbb{N}.\ (i < zz) \Rightarrow P(i)$

$\vdash P(i)$

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http://www.nuprl.org/FDLcontent/p0_359040_/p121_94017_{comp_nat_ind_tp}1_1_1.html