

Inference at * 1 1 2
of proof for Lemma complete_nat_ind_with_y:

1. $P : \mathbb{N} \rightarrow \mathbb{P}\{k\}$
 2. $g : \forall i:\mathbb{N}. (\forall j:\mathbb{N}i. P(j)) \Rightarrow P(i)$
 3. $Y(\lambda f,x. g(x,f)) \in !\text{Void}() \rightarrow !\text{Void}()$
- $\vdash Y(\lambda f,x. g(x,f)) \in (\forall i:\mathbb{N}. P(i))$
by Assert $\forall n:\mathbb{N}. Y(\lambda f,x. g(x,f)) \in (\forall m:\mathbb{N}n. P(m))$

1:assertion..... NILNIL

$\vdash \forall n:\mathbb{N}. Y(\lambda f,x. g(x,f)) \in (\forall m:\mathbb{N}n. P(m))$

2:

4. $\forall n:\mathbb{N}. Y(\lambda f,x. g(x,f)) \in (\forall m:\mathbb{N}n. P(m))$

$\vdash Y(\lambda f,x. g(x,f)) \in (\forall i:\mathbb{N}. P(i))$

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