

Inference at * 1 4
of proof for Lemma fincr_wf2:

.....eq aux..... NILNIL

1. $i : \mathbb{N}$
2. $f : \{f \mid i:\{z:\mathbb{N} \mid z (\lambda i,j. i < j) i\} \rightarrow \text{if } (i =_0 0) \text{ then } \mathbb{Z} \text{ else } \{f(i-1)\dots\} \text{ fi}\}$
 $\vdash \text{if } (i =_0 0) \text{ then } \mathbb{Z} \text{ else } \{f(i-1)\dots\} \text{ fi} \in \text{Type}$
by (((AbReduce (-2))
CollapseTHEN (AbReduce (-1))))
CollapseTHEN (Assert
 $\forall j:\{k:\mathbb{N} \mid k < i\} . f(j) \in \mathbb{Z}$)).

1:assertion..... NILNIL

2. $f : \{f \mid i:\{z:\mathbb{N} \mid z < i\} \rightarrow \text{if } (i =_0 0) \text{ then } \mathbb{Z} \text{ else } \{f(i-1)\dots\} \text{ fi}\}$
 $\vdash \forall j:\{k:\mathbb{N} \mid k < i\} . f(j) \in \mathbb{Z}$
2:

2. $f : \{f \mid i:\{z:\mathbb{N} \mid z < i\} \rightarrow \text{if } (i =_0 0) \text{ then } \mathbb{Z} \text{ else } \{f(i-1)\dots\} \text{ fi}\}$
3. $\forall j:\{k:\mathbb{N} \mid k < i\} . f(j) \in \mathbb{Z}$
 $\vdash \text{if } (i =_0 0) \text{ then } \mathbb{Z} \text{ else } \{f(i-1)\dots\} \text{ fi} \in \text{Type}$