Inference at $*$ 1 4
of proof for Lemma fincr_wf:

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

1. $i : \mathbb{N}$
2. $f : \{f \mid i{:}\{z{:}\mathbb{N} \mid z\ (\lambda i,j.\ i < j)\ i\} \rightarrow \text{if } (i =_0 0) \text{ then } \mathbb{Z} \text{ else } \{f(i - 1)\ldots\} \text{ fi } \}$

$\vdash$if $(i =_0 0)$ then $\mathbb{Z}$ else $\{f(i - 1)\ldots\}$ fi $\in$ Type
by ((AbReduce (-1))
CollapseTHEN (Assert $\forall j{:}\{k{:}\mathbb{N} \mid k < i\}\ .\ f(j) \in \mathbb{Z}$))·

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

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

2:

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