Inference at $*$ 1 2 2 2
of proof for Lemma fincr_formation:

. . . . .falsecase. . . . . NILNIL

1. $i : \mathbb{N}$
2. $f : \{f \mid i{:}\{i_1{:}\mathbb{N} \mid i_1\ (\lambda i,j.\ i < j)\ i\} \rightarrow \text{if } (i =_0 0) \text{ then } \mathbb{Z} \text{ else } \{f(i \text{ - } 1)\ldots\} \text{ fi } \}$
3. $\forall j{:}\{k{:}\mathbb{N} \mid k < i\}\ .\ f(j) \in \mathbb{Z}$
4. $i \neq 0$

$\vdash \{f(i \text{ - } 1)\ldots\}$
by (With $f(i \text{ - } 1)+1$ (D 0))

1: . . . . .wf. . . . . NILNIL

$\vdash f(i \text{ - } 1)+1 \in \mathbb{Z}$

2:

$\vdash (f(i \text{ - } 1)) \leq (f(i \text{ - } 1)+1)$

3: . . . . .wf. . . . . NILNIL

5. $j : \mathbb{Z}$

$\vdash ((f(i \text{ - } 1)) \leq j) \in \mathbb{P}_1$

.