Inference at $*$ 1 0 1 2
of proof for Lemma nat_ind:

. . . . .basecase. . . . . NILNIL

1. $P : \mathbb{N} \rightarrow \mathbb{P}\{\mathrm{k}\}$
2. $P(0)$
3. $\forall i{:}\mathbb{N}^+.\ P(i - 1) \Rightarrow P(i)$

$\vdash (0 \geq 0\ ) \Rightarrow P(0)$
by D 0

1:

4. $0 \geq 0$

$\vdash P(0)$

2: . . . . .wf. . . . . NILNIL

$\vdash (0 \geq 0\ ) \in \mathbb{P}_1$

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http://www.nuprl.org/FDLcontent/p0_942988_/p121_93428_{nat_ind}1_0_1_2.html