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

1. T_1 : Type
2. T_2 : Type
3. r_1 : $T_1 \rightarrow T_1 \rightarrow \mathbb{P}$
4. r_2 : $T_2 \rightarrow T_2 \rightarrow \mathbb{P}$
5. $T_1 = T_2$
6. $\forall x, y{:}T_1.\ r_1(x,y) \Leftarrow r_2(x,y)$
7. $\forall P{:}(T_1 \rightarrow \mathbb{P}).\ (\forall j{:}T_1.\ (\forall k{:}T_1.\ r_1(k,j) \Rightarrow P(k)) \Rightarrow P(j)) \Rightarrow \{\forall n{:}T_1.\ P(n)\}$
8. P : $T_2 \rightarrow \mathbb{P}$
9. $\forall j{:}T_2.\ (\forall k{:}T_2.\ r_2(k,j) \Rightarrow P(k)) \Rightarrow P(j)$

$\vdash \forall n{:}T_1.\ P(n)$

by ((((BackThruHyp 7)
CollapseTHEN (Thin 7))·)
CollapseTHEN ((Auto_aux (first_nat
1:n) ((first_nat 1:n),(first_nat 3:n)) (first_tok :t) inil_term)))·

1:

7. P : $T_2 \rightarrow \mathbb{P}$
8. $\forall j{:}T_2.\ (\forall k{:}T_2.\ r_2(k,j) \Rightarrow P(k)) \Rightarrow P(j)$
9. j : T_1
10. $\forall k{:}T_1.\ r_1(k,j) \Rightarrow P(k)$

$\vdash P(j)$

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