

Inference at * 1
of proof for Lemma wellfounded_functionality_wrt_iff:

1. $T_1 : \text{Type}$
 2. $T_2 : \text{Type}$
 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. $\forall x, y : T_1. r_1(x, y) \iff r_2(x, y)$
- $\vdash \text{WellFnd}\{i\}(T_1; x, y. r_1(x, y)) \iff \text{WellFnd}\{i\}(T_2; x, y. r_2(x, y))$
by D 0

1:

$$\vdash \text{WellFnd}\{i\}(T_1; x, y. r_1(x, y)) \Rightarrow \text{WellFnd}\{i\}(T_2; x, y. r_2(x, y))$$

2:

$$\vdash \text{WellFnd}\{i\}(T_1; x, y. r_1(x, y)) \Leftarrow \text{WellFnd}\{i\}(T_2; x, y. r_2(x, y))$$

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