Inference at $*$
of proof for Lemma wellfounded_functionality_wrt_implies:

$\vdash \forall T_1, T_2$:Type, r_1:($T_1 \to T_1 \to \mathbb{P}$), r_2:($T_2 \to T_2 \to \mathbb{P}$).
($T_1 = T_2$)
$\Rightarrow$ ($\forall x, y$:T_1. $\{r_1(x,y) \Leftarrow r_2(x,y)\}$)
$\Rightarrow$ {WellFnd{i}(T_1;x,y.$r_1(x,y)$) $\Rightarrow$ WellFnd{i}(T_2;x,y.$r_2(x,y)$)}
by ((((Unfolds "wellfounded guard" 0)
CollapseTHEN (UnivCD))$\cdot$)
CollapseTHENA (
(Auto_aux (first_nat 1:n) ((first_nat 1:n),(first_nat 3:n)) (first_tok :t) inil_term)))$\cdot$

1:

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

$\vdash \forall n$:T_2. $P(n)$

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http://www.nuprl.org/FDLcontent/p0_942988_/p121_96293_{wellfounded_functionality_wrt_implies}.html