

Inference at *
of proof for Lemma trans_rel_self_functionality:

$\vdash \forall T:\text{Type}, R:(T \rightarrow T \rightarrow \mathbb{P}).$
 $\text{Trans}(T;x,y.R(x,y)) \Rightarrow \{\forall a, a', b, b':T. R(b,a) \Rightarrow R(a',b') \Rightarrow R(a,a') \Rightarrow R(b,b')\}$
by (((Unfolds “trans guard“ 0)
CollapseTHENM (RepD)).)
CollapseTHEN (
(Auto_aux (first_nat 1:n) ((first_nat 1:n),(first_nat 3:n) (first_tok :t) inil_term))).

1:

1. $T : \text{Type}$
2. $R : T \rightarrow T \rightarrow \mathbb{P}$
3. $\forall a, b, c:T. R(a,b) \Rightarrow R(b,c) \Rightarrow R(a,c)$
4. $a : T$
5. $a' : T$
6. $b : T$
7. $b' : T$
8. $R(b,a)$
9. $R(a',b')$
10. $R(a,a')$
- $\vdash R(b,b')$