

Inference at * 1 1
of proof for Lemma choicef_wf:

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1.  $xm : \forall P:\mathbb{P}. P \vee (\neg P)$ 
2.  $T : \text{Type}$ 
3.  $P : T \rightarrow \mathbb{P}$ 
4.  $\exists a:T. P(a)$ 
5.  $z : \{y:T \mid P(y)\} \vee (\neg \{y:T \mid P(y)\})$ 
6.  $xm(\{y:T \mid P(y)\}) = z$ 
 $\vdash \text{case } z \text{ of } \text{inl}(z) \Rightarrow z \mid \text{inr}(w) \Rightarrow \text{"???"} \in T$ 
  by (((D 5)
    CollapseTHEN (Reduce 0)).)
  CollapseTHEN ((Auto_aux (first_nat 1:n
    ) ((first_nat 1:n),(first_nat 3:n)) (first_tok :t) inil_term))).

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1:

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5.  $y : \neg \{y:T \mid P(y)\}$ 
6.  $xm(\{y:T \mid P(y)\}) = (\text{inr } y)$ 
 $\vdash \text{"???"} \in T$ 
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