

Inference at \* 1 1 1  
of proof for Lemma choicef\_wf:

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.  $y : \neg\{y:T \mid P(y)\}$
6.  $xm(\{y:T \mid P(y)\}) = (\text{inr } y)$

$\vdash \text{"???"} \in T$   
by (D 5)  
CollapseTHENA ((Auto\_aux (first\_nat 1:n) ((first\_nat 1:n),(first\_nat 1000:n)) (first\_tok :t) inil\_term)))

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5.  $y : \{y:T \mid P(y)\} \rightarrow \text{False}$
6.  $xm(\{y:T \mid P(y)\}) = (\text{inr } y)$

$\vdash \{y:T \mid P(y)\}$   
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