Inference at $*$ 2 1 1 1
of proof for Lemma primrec_add:

.....falsecase..... NILNIL

1. T : Type
2. n : $\mathbb{Z}$
3. $0 < n$
4. $\forall m$:$\mathbb{N}$, b:T, c:($\{0..((n$ - 1)+$m)^{-}\}\rightarrow T\rightarrow T$).
   primrec((n - 1)+m;b;c) = primrec(n - 1;primrec(m;b;c);$\lambda i,t.$ $c(i+m,t)$)
5. m : $\mathbb{N}$
6. b : T
7. c : $\{0..(n+m)^{-}\}\rightarrow T\rightarrow T$
8. b' : T
9. primrec(m;b;c) = b'
10. primrec((n - 1)+m;b;c) = primrec(n - 1;b';$\lambda i,t.$ $c(i+m,t)$)
11. $\neg(n+m = 0)$
12. $\neg(n = 0)$

$\vdash c(((n+m)$ - 1),primrec(($n+m$) - 1;b;c)) = c((n - 1)+m,primrec(n - 1;b';$\lambda i,t.$ $c(i+m,t)$))
by ((Subst' (($n+m$) - 1) = (n - 1)+m 0)
CollapseTHENA ((Auto_aux (first_nat 1:n
) ((first_nat 1:n),(first_nat 1000:n)) (first_tok SupInf:t) inil_term)))·

1:

$\vdash$ c((n - 1)+m,primrec((n - 1)+m;b;c))
=
c((n - 1)+m,primrec(n - 1;b';$\lambda i,t.$ $c(i+m,t)$))

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