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

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))

$\vdash$primrec(n+m;b;c) = primrec(n;b';$\lambda i,t.$ c(i+m,t))
by ((((RecUnfold 'primrec' 0)
CollapseTHEN (Reduce 0))·)
CollapseTHEN (Repeat ((((
SplitOnConclITE)
CollapseTHENA ((Auto_aux (first_nat 1:n) ((first_nat 1:n),(first_nat
1000:n)) (first_tok :t) inil_term)))·)
CollapseTHEN (Try (Complete
(Auto_aux (first_nat 1:n) ((first_nat 2:n),(first_nat 3:n)) (first_tok SupInf:t
) inil_term))))·))·

1: .....falsecase..... NILNIL

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)))
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