Inference at $*$
of proof for Lemma comp_assoc:

$\vdash \forall A, B, C, D$:Type, f:($A \to B$), g:($B \to C$), h:($C \to D$). $(h \circ (g \circ f)) = ((h \circ g) \circ f)$
by ((((UnivCD)
CollapseTHENM (((Unfold ‘compose‘ 0)
CollapseTHEN (Reduce 0))·))·)

CollapseTHENA ((Auto_aux (first_nat 1:n) ((first_nat 1:n),(first_nat 3:n)) (first_tok :t) inil_term)))·

1:

1. A : Type
2. B : Type
3. C : Type
4. D : Type
5. f : $A \to B$
6. g : $B \to C$
7. h : $C \to D$

$\vdash (\lambda x.h(g(f(x)))) = (\lambda x.h(g(f(x))))$

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http://www.nuprl.org/FDLcontent/p0_942988_/p121_85106_{comp_assoc}.html