```
ncompose_wf  THM

⊢  ∀'a:Type, n:ℕ, x:'a, f:('a→'a). ncompose(f;n;x) ∈ 'a  by Auto
|
1. 'a : Type
2. n : ℕ
3. x : 'a
4. f : 'a→'a
⊢  ncompose(f;n;x) ∈ 'a  by MoveToConcl 3 THEN NInd 2 THEN StrongAuto
|
|\
| 1. 'a : Type
| 2. f : 'a→'a
| 3. x : 'a
| ⊢  ncompose(f;0;x) ∈ 'a  by RecUnfold `ncompose` 0
| |
| 1. 'a : Type
| 2. f : 'a→'a
| 3. x : 'a
| ⊢  if 0=₂0 then x else f(ncompose(f;0-1;x)) fi  ∈ 'a
|   by Unfold `bif` 0 THEN Reduce 0
|
.\
. 1. 'a : Type
. 2. f : 'a→'a
. 3. n : ℤ
. 4. 0<n
. 5. ∀x:'a. ncompose(f;n-1;x) ∈ 'a
. 6. x : 'a
. ⊢  ncompose(f;n;x) ∈ 'a
. | by RecUnfold `ncompose` 0 THEN StrongAuto
. |    THEN
. |    Try (Complete (Unfold `label` 0))
. |
. .....subterm .....
. 1. 'a : Type
. 2. f : 'a→'a
. 3. n : ℤ
. 4. 0<n
. 5. ∀x:'a. ncompose(f;n-1;x) ∈ 'a
. 6. x : 'a
. 7. ¬n=₂0
. ⊢  ncompose(f;n-1;x) ∈ 'a  by BackThru 5
END
```