```
rel_mng_functionality  THM

⊢  ∀r:rel(), ds1,ds2,da:Collection(dec())
|  , da1,da2:Collection(SimpleType), de:sig(), rho:Decl
|  , e:{[[de]] rho}, s:{[[ds1]] rho}, a:[[da1]] rho
|  , tr:trace_env([[da]] rho).
|  trace_consistent_rel(rho;da;tr.proj;r)
|  ⇒
|  tc(r;ds1;da1;de)
|  ⇒
|  ds1 = ds2
|  ⇒
|  da1 = da2
|  ⇒
|  ([[r]] rho ds1 da1 de e s a tr ⟺ [[r]] rho ds2 da2 de e s a tr)
| by UnivCD THENA Auto
|
|\
| 1. r : rel()
| 2. ds1 : Collection(dec())
| 3. ds2 : Collection(dec())
| 4. da : Collection(dec())
| 5. da1 : Collection(SimpleType)
| 6. da2 : Collection(SimpleType)
| 7. de : sig()
| 8. rho : Decl
| 9. e : {[[de]] rho}
| 10. s : {[[ds1]] rho}
| 11. a : [[da1]] rho
| 12. tr : trace_env([[da]] rho)
| 13. trace_consistent_rel(rho;da;tr.proj;r)
| 14. tc(r;ds1;da1;de)
| 15. ds1 = ds2
| 16. da1 = da2
| ⊢  [[r]] rho ds1 da1 de e s a tr ⟺ [[r]] rho ds2 da2 de e s a tr
|   by D 0 THEN D 0 THENA Auto
| THEN Try (
|      All (Unfold `rel_mng`) THEN Complete Auto)
| THEN Try Easy•
|
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. .....unproved Inclusion subgoal .....
. 1. rel()
. 2. Collection(dec())
. 3. Collection(dec())
. 4. Collection(dec())
. 5. Collection(SimpleType)
. 6. Collection(SimpleType)
. 7. de : sig()
. 8. rho : Decl
. 9. [[de]] rho = [[de]] rho
. 10. Decl×Decl
. ⊢  Decl ⊆ Decl  by Unfold `decl` 0 THEN Auto
END
```