```
exteq_sigma_st_dom  THM

⊢  ∀A:Type, B:(A→Type), P:(A→Prop).
|  (i:{i:A| P(i) }×B(i)) =ext {v:(i:A×B(i))| P(v.1) }  by Auto
|
1. A : Type
2. B : A→Type
3. P : A→Prop
⊢  (i:{i:A| P(i) }×B(i)) =ext {v:(i:A×B(i))| P(v.1) }
| by Analyze THEN New:z Analyze
|
|\
| 4. z : i:{i:A| P(i) }×B(i)
| ⊢  z ∈ {v:(i:A×B(i))| P(v.1) }
| | by New:[i | b] Analyze4 THEN Analyze4
| |
| 4. i : A
| 5. P(i)
| 6. b : B(i)
| ⊢  <i,b> ∈ {v:(i:A×B(i))| P(v.1) }  by Analyze THEN Reduce Concl
|
.\
. 4. z : {v:(i:A×B(i))| P(v.1) }
. ⊢  z ∈ i:{i:A| P(i) }×B(i)
. | by Analyze4 THEN New:[i | b] Analyze4 THEN Reduce Hyp:-1
. |
. 4. i : A
. 5. b : B(i)
. 6. P(i)
. ⊢  <i,b> ∈ i:{i:A| P(i) }×B(i)  by Analyze
. |
. |\
. | ⊢  i ∈ {i:A| P(i) }  by Auto
. |
. .\
. . ⊢  b ∈ B(i)  by Trivial
END
```