```
all_int_segs_by_upper_ind  THM

⊢  ∀P:(ℤ→ℤ→Prop).
|  (∀a:ℤ, b:{...a}. P(a,b))
|  ⇒
|  (∀a:ℤ, b:{a+1...}. (∀c:{a..b⁻}. P(a,c)) ⇒ P(a,b))
|  ⇒
|  (∀a,b:ℤ. P(a,b))  by Auto
|
1. P : ℤ→ℤ→Prop
2. ∀a:ℤ, b:{...a}. P(a,b)
3. ∀a:ℤ, b:{a+1...}. (∀c:{a..b⁻}. P(a,c)) ⇒ P(a,b)
⊢  ∀a,b:ℤ. P(a,b)  by Analyze
|
4. a : ℤ
⊢  ∀b:ℤ. P(a,b)
| by Inst:
|    Thm*  ∀P:(ℤ→ℤ→Prop), a:ℤ.
|          (∀b:{...a}. P(a,b))
|          ⇒
|          (∀b:{a+1...}. (∀c:{a..b⁻}. P(a,c)) ⇒ P(a,b))
|          ⇒
|          (∀b:ℤ. P(a,b))
|    {int_segs_from_base_by_upper_ind}
|    Using:[P | a]
|
|\
| 5. b : {...a}
| ⊢  P(a,b)  by BackThru: Hyp:2
|
.\
. 5. b : {a+1...}
. 6. ∀c:{a..b⁻}. P(a,c)
. ⊢  P(a,b)  by BackThru: Hyp:3
END
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