```
int_seg_well_founded_up  THM

⊢  ∀i:ℤ, j:{i...}. WellFnd{u}({i..j⁻};x,y.x<y)  by UnivCD
|
1. i : ℤ
2. j : {i...}
⊢  WellFnd{u}({i..j⁻};x,y.x<y)
| by Inst
|    Thm* ∀n:ℤ. WellFnd{i}({n...};x,y.x<y)    {int_upper_well_founded}
|    [lexpr{u};i]
|
3. WellFnd{u}({i...};x,y.x<y)
⊢  WellFnd{u}({i..j⁻};x,y.x<y)
| by Using [‘B’,{i..j⁻};‘f’,(λx.x)]
|    (FwdThru
|     Thm* ∀r:(A→A→Prop), B:Type, f:(B→A).
|          WellFnd{i}(A;x,y.r(x,y)) ⇒ WellFnd{i}(B;x,y.r(f(x),f(y)))
|     {inv_image_ind}
|     [3])
|
4. WellFnd{u}({i..j⁻};x,y.(λx.x)(x)<(λx.x)(y))
⊢  WellFnd{u}({i..j⁻};x,y.x<y)  by Reduce 4 THEN Trivial
END
```