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array_el_wfp  THM

⊢  ∀T:Type, i:ℤ, j:{i...}, a:[T]Array{i..j⁻}, k:{i..j⁻}. a[k] ∈ T
| by UnivCD
|
1. T : Type
2. i : ℤ
3. j : {i...}
4. a : [T]Array{i..j⁻}
5. k : {i..j⁻}
⊢  a[k] ∈ T  by Analyze 4
|
4. a : [T]Array
5. a.l = i & a.u = j
6. k : {i..j⁻}
⊢  a[k] ∈ T  by Analyze 5
|
5. a.l = i
6. a.u = j
7. k : {i..j⁻}
⊢  a[k] ∈ T  by Unfold ‘array‘ 4 THEN Analyze 4 THEN Analyze 5
|
4. n : ℤ
5. m : {n...}
6. a2 : {n..m⁻}→T
7. <n,m,a2>.l = i
8. <n,m,a2>.u = j
9. k : {i..j⁻}
⊢  <n,m,a2>[k] ∈ T
| by Unfold ‘array_lb‘ 7 THEN Unfold ‘array_ub‘ 8
|    THEN
|    Unfold ‘array_el‘ 0
|    THEN
|    OnClauses [7;8;0]
|    (Rewrite (DepthC (pi1_evalC ORELSEC pi2_evalC)))
|
7. n = i
8. m = j
9. k : {i..j⁻}
⊢  a2(k) ∈ T  by Auto
END
```