5.184 incomparable

DESCRIPTION LINKS

Origin Inspired by incomparable rectangles.

Constraint incomparable(VECTOR1, VECTOR2)

Synonym incomparables.

Arguments

VECTOR1	:	collection(var−dvar)
VECTOR2	:	collection(var−dvar)

Restrictions

required(VECTOR1, var)
required(VECTOR2, var)
|VECTOR1| ≥ 1
|VECTOR2| ≥ 1
|VECTOR1| = |VECTOR2|

Purpose Enforce that when the components of VECTOR1 and VECTOR2 are ordered, and respectively denoted by SVECTOR1 and SVECTOR2, we neither have SVECTOR1[i].var ≤ SVECTOR2[i].var (for all $i \in [1, |\text{SVECTOR1}|]$) nor have SVECTOR2[$i$].var ≤ SVECTOR1[$i$].var (for all $i \in [1, |\text{SVECTOR1}|]$).

Example $(\langle 16, 2\rangle, \langle 4, 11\rangle)$

The incomparable constraint holds since $16 > 4$ and $2 < 11$.

Typical |VECTOR1| > 1

Symmetries

- Items of VECTOR1 are permutable.
- Items of VECTOR2 are permutable.
- Arguments are permutable w.r.t. permutation (VECTOR1, VECTOR2).

Used in all_incomparable.

See also **implies:** lex_different.

system of constraints: all_incomparable.

Keywords **characteristic of a constraint:** vector.

constraint type: predefined constraint.

Cond. implications

- incomparable(VECTOR1, VECTOR2)
  with |VECTOR1| = 2
  implies disjoint(VARIABLES1 : VECTOR1, VARIABLES2 : VECTOR2).

- `incomparable`(VECTOR1, VECTOR2)
  with $|\texttt{VECTOR1}| = 2$
  implies `int_value_precede_chain`(VALUES : VECTOR1, VARIABLES : VECTOR2).