5.268 multi_global_contiguity

DESCRIPTION LINKS

Origin Derived from global_contiguity.

Constraint multi_global_contiguity(VARIABLES)

Synonym multi_contiguity.

Argument VARIABLES : collection(var−dvar)

Restrictions required(VARIABLES, var)
VARIABLES.var ≥ 0

Purpose Enforce all variables of the VARIABLES collection to be assigned a value greater than or equal to 0. In addition, each value v strictly greater than 0 should appear contiguously.

Example $(\langle 0, 2, 2, 1, 1, 0, 0, 5\rangle)$

The multi_global_contiguity constraint holds since the sequence 0 2 2 1 1 0 0 5 contains no more than one group of contiguous 1, no more than one group of contiguous 2, and no more than one group of contiguous 5.

Typical |VARIABLES| > 3

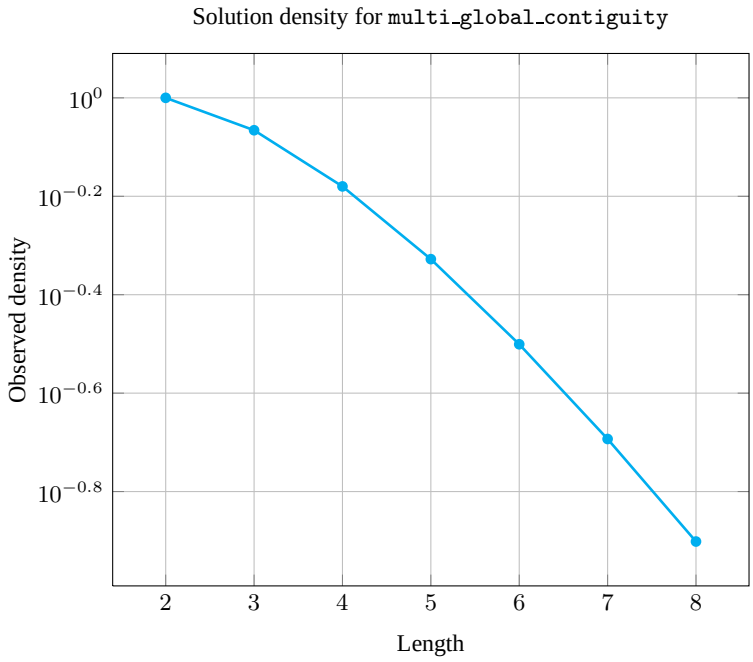
Symmetry Items of VARIABLES can be reversed.

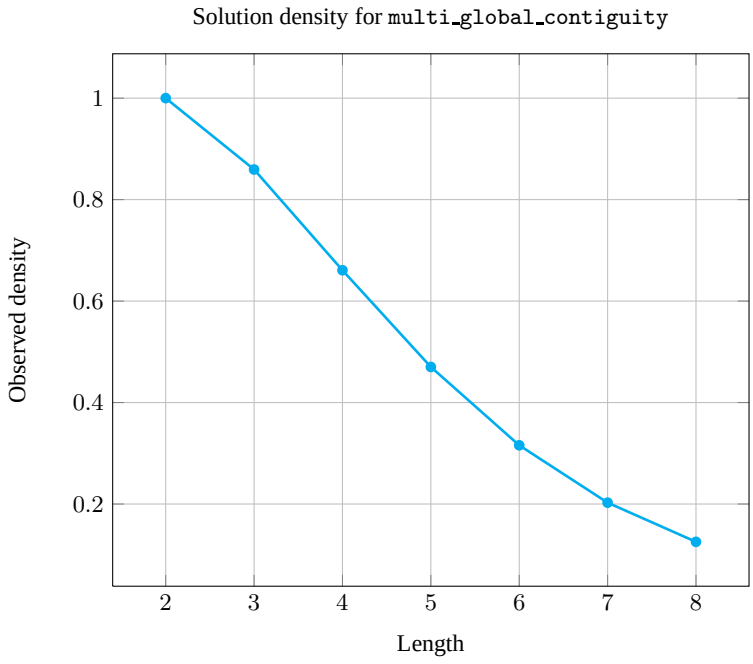
Arg. properties Contractible wrt. VARIABLES.

Counting

Length (n)	2	3	4	5	6	7	8
Solutions	9	55	413	3656	37147	425069	5400481

Number of solutions for multi_global_contiguity: domains $0..n$





See also **common keyword:** `group` (*sequence*).

implied by: `all_equal`, `alldifferent`, `alldifferent_except_0`, `decreasing`, `global_contiguity`, `increasing`.

Keywords **combinatorial object:** sequence.
constraint type: predefined constraint.