5.129 distance

DESCRIPTION LINKS

Origin Arithmetic constraint.

Constraint distance(X, Y, Z)

Arguments

X	:	dvar
Y	:	dvar
Z	:	dvar

Restriction $Z \geq 0$

Purpose Enforce the fact that Z is equal to $|X - Y|$.

Example $(5, 7, 2)$

The distance constraint holds since $2 = |5 - 7|$.

Typical $Z > 0$

Symmetry Arguments are permutable w.r.t. permutation (X, Y) (Z).

Arg. properties

Functional dependency: Z determined by X and Y.

Systems distanceEQ in **Choco**, distance in **JaCoP**, distance2 in **JaCoP**.

See also **implies:** leq_cst.

related: all_min_dist *(fixed minimum distance between all pairs of variables of a collection of variables)*, smooth.

Keywords **constraint arguments:** ternary constraint, pure functional dependency.

constraint type: arithmetic constraint, predefined constraint.

modelling: functional dependency.