5.219 leq_cst

DESCRIPTION LINKS

Origin Arithmetic.

Constraint leq_cst(VAR1, VAR2, CST2)

Arguments

VAR1	:	dvar
VAR2	:	dvar
CST2	:	int

Purpose Enforce the fact that the first variable is less than or equal to the sum of the second variable and the constant.

Example $(5, 2, 4)$

The leq_cst constraint holds since 5 is less than or equal to $2 + 4$.

Typical

$\texttt{CST2} \neq 0$

$\texttt{VAR1} < \texttt{VAR2} + \texttt{CST2}$

Symmetries

- Arguments are permutable w.r.t. permutation $(\texttt{VAR1})$ $(\texttt{VAR2}, \texttt{CST2})$.
- VAR1 can be replaced by any value $\leq$ VAR2 + CST2.
- VAR2 can be replaced by any value $\geq$ VAR1 $-$ CST2.
- CST2 can be replaced by any value $\geq$ VAR1 $-$ VAR2.

See also

common keyword: geq_cst *(binary constraint,arithmetic constraint)*.

implied by: distance, eq_cst.

specialisation: leq *(*constant *set to* 0*)*.

Keywords

constraint arguments: binary constraint.

constraint type: predefined constraint, arithmetic constraint.

filtering: arc-consistency.

modelling exercises: metro.