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Constraint Programming Due Date: 8 May 2017

Reification

Conjunction via reification

$$(c_1 \iff b_1 = 1) \land b_1 \in \{0,1\} \quad (c_2 \iff b_2 = 1) \land b_2 \in \{0,1\}$$

$c_1 \land c_2$ can be expressed with conjuction as follows:

$$b_1 + b_2 = 2$$

k reified constraints

$$(c_i \iff b_i = 1) \land b_1 \in \{0,1\} \quad \forall i \in \{0,\ldots,n-1\}$$

Constraint expressing that $1 \leq k \leq n$ constraints hold:

$$sum(\{b_0,\ldots,b_{n-1}\}) \geq 1$$