

Feltmin

[Spec](#)

In: $n \in \mathbb{N}, m \in \mathbb{N}, k \in \mathbb{N}, \text{data} \in \mathbb{N}[1..n, 1..m]$
Sa: $\text{ind} \in \mathbb{N}$
Out: $\text{xIndex} \in \mathbb{N}, \text{yIndex} \in \mathbb{N}$
Pre: -
Post:
 $(\text{ind},) = \text{CONDMIN}(i=1..n*m,$
 $\text{data}[(i-1) / m + 1, (i-1) \% m + 1],$
 $\text{data}[(i-1) / m + 1, (i-1) \% m + 1] \geq k)$
and
 $\text{xIndex} = (\text{ind} - 1) \% m + 1$ and
 $\text{yIndex} = (\text{ind} - 1) / m + 1$

E : 1
U: $n*m$
Minind: ind
f(i): $\text{data}[(i-1) / m + 1, (i-1) \% m + 1]$
T(i): $\text{data}[(i-1) / m + 1, (i-1) \% m + 1] \geq k$

i := 1		
j := 1		
exists := false		
i ≤ n		
j ≤ m		
not data[i][j] ≥ k	exists and data[i][j] ≥ k	not exists and data[i][j] ≥ k
-	Tdata[i][j] < min	Fexists := true
	min := data[i][j]	-min := data[i][j]
	indexX := j	indexX := j
	indexY := i	indexY := i