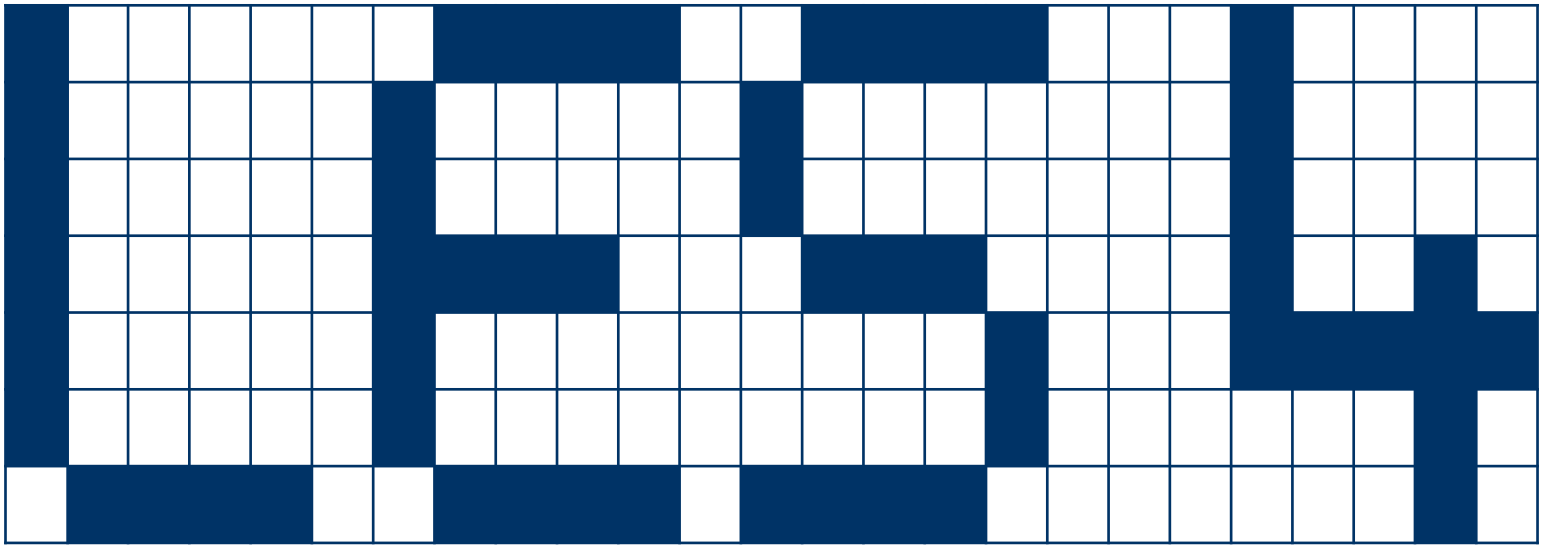
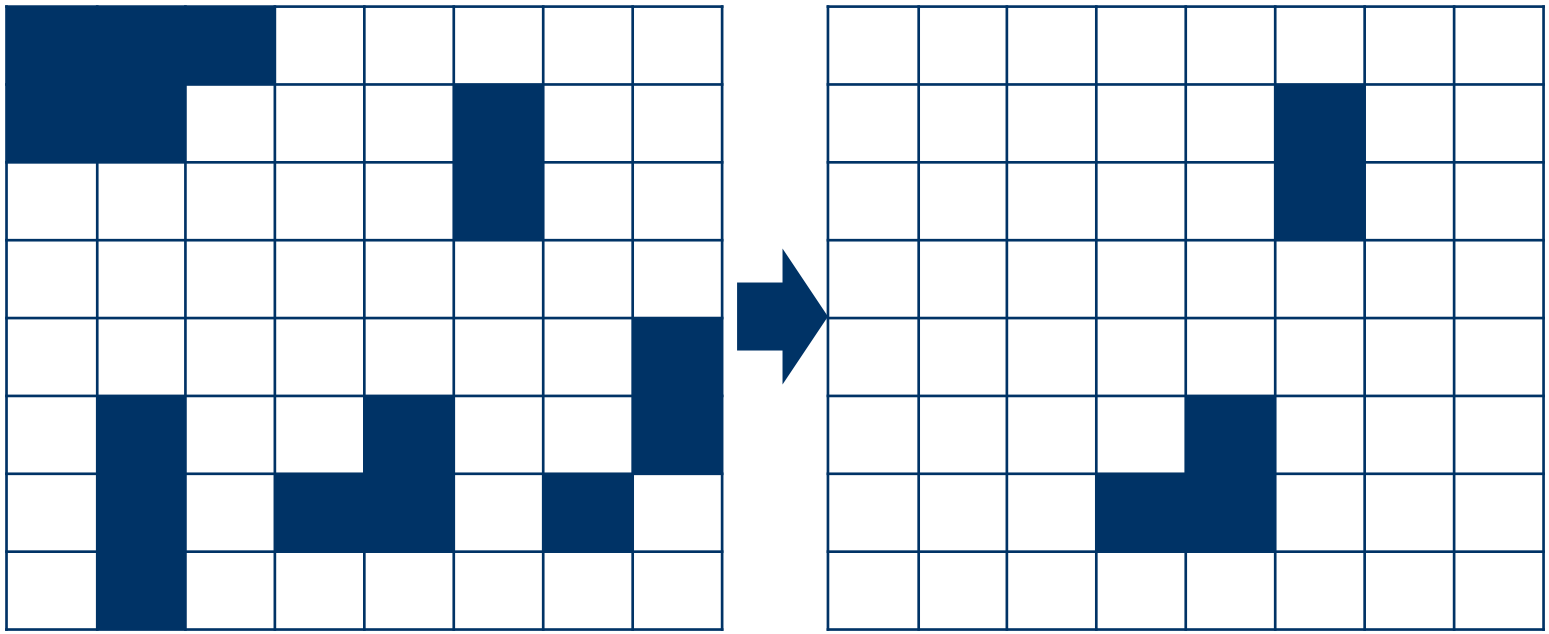
Hogeschool van Arnhem en Nijmegen

EVD1 – Vision operators



HAN

Remove border blobs

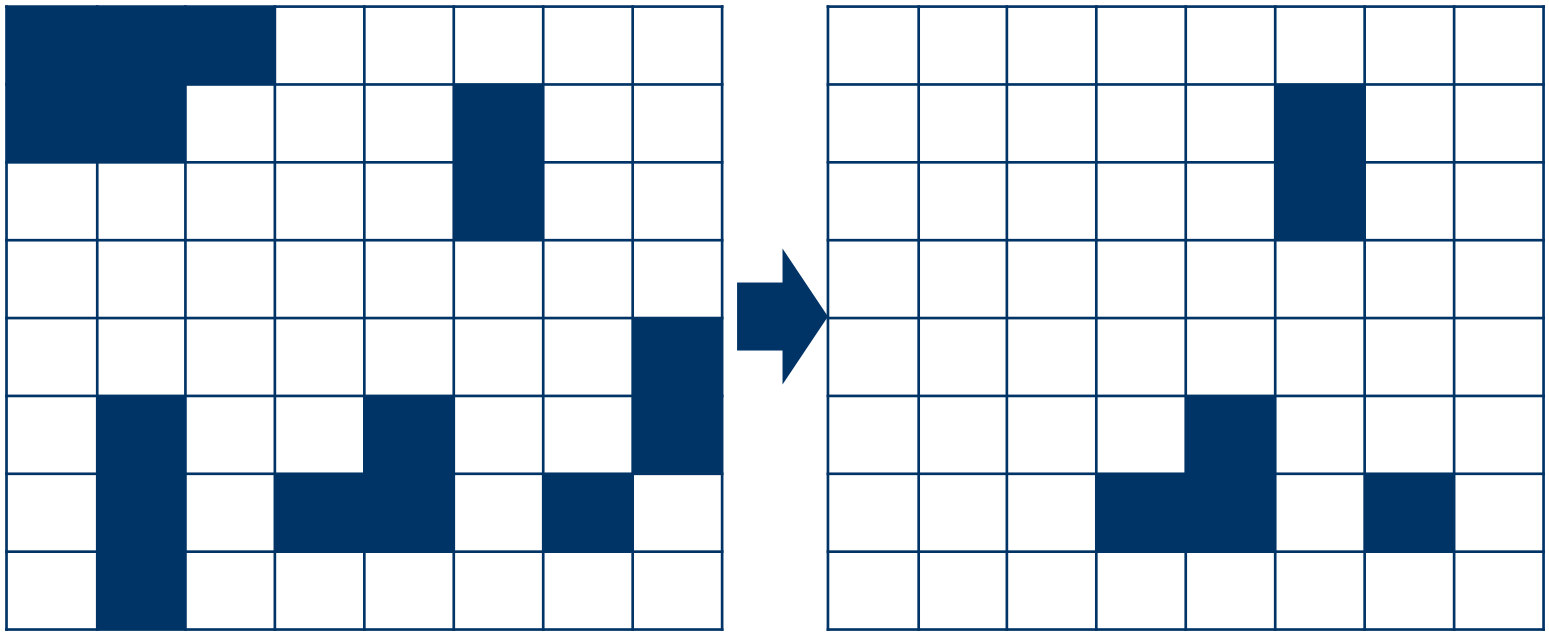


Source

Destination

EIGHT connected

Remove border blobs

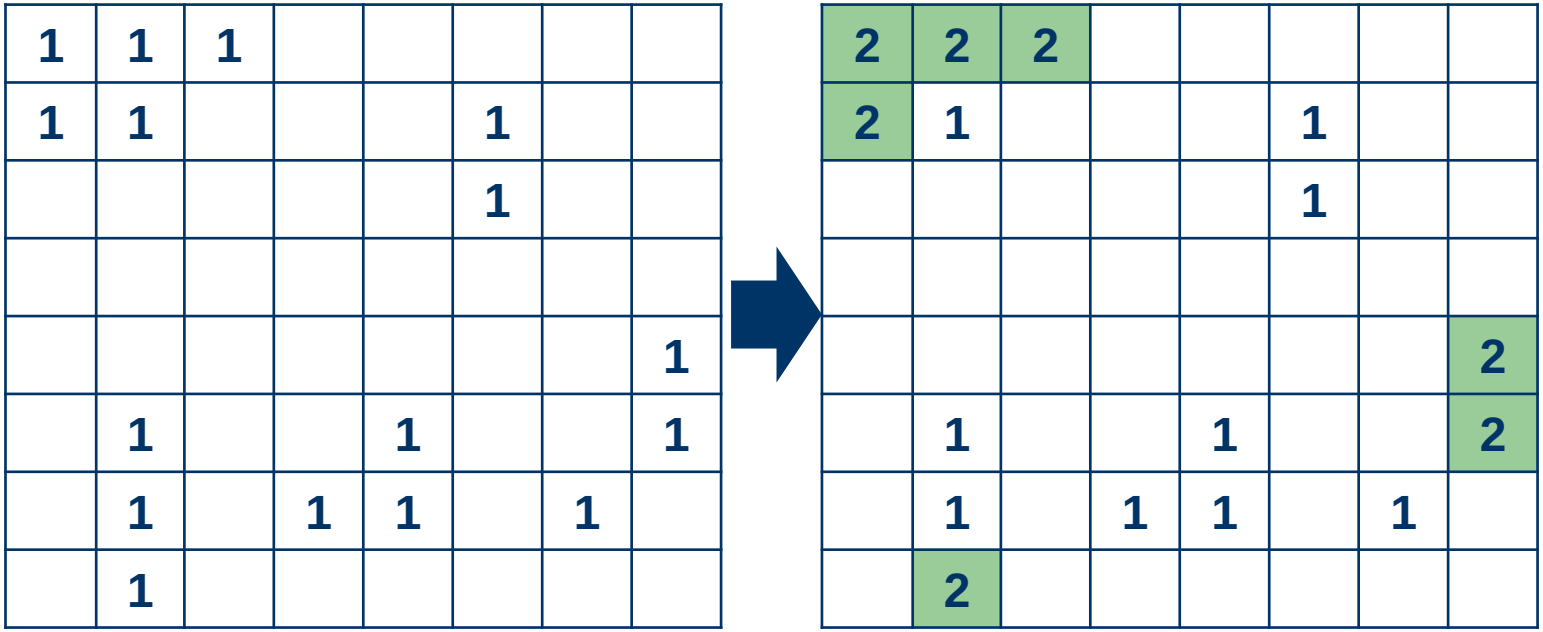


Source

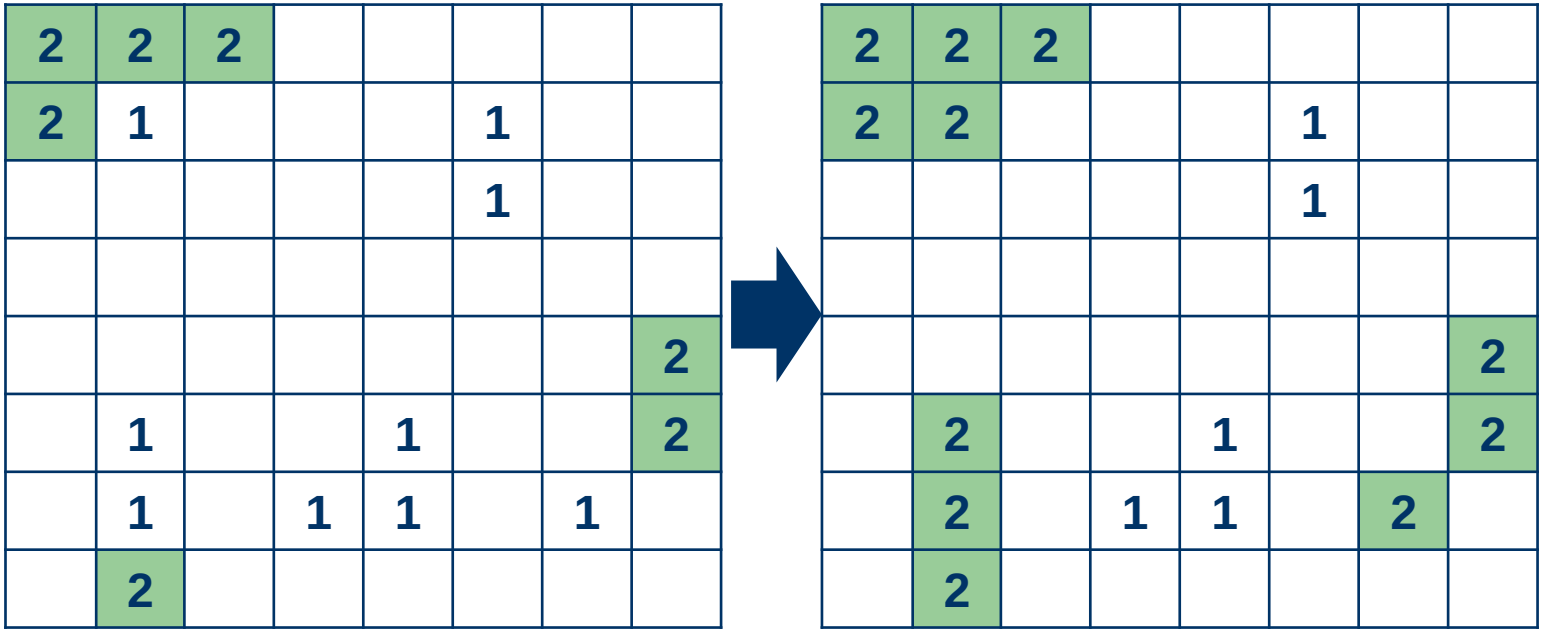
Destination

FOUR connected

Remove border blobs



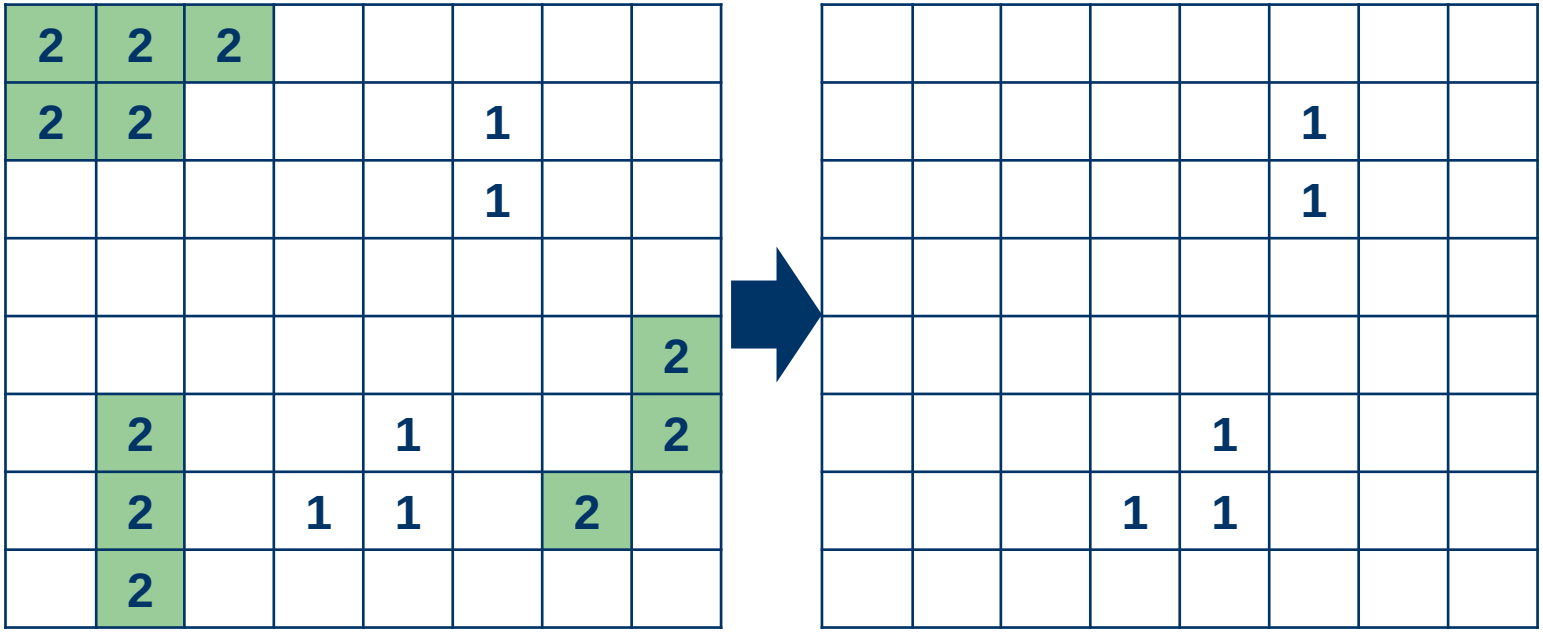
Remove border blobs




```
FROM LB -> RO
  IF neighbour == edge
    mark this pixel
```

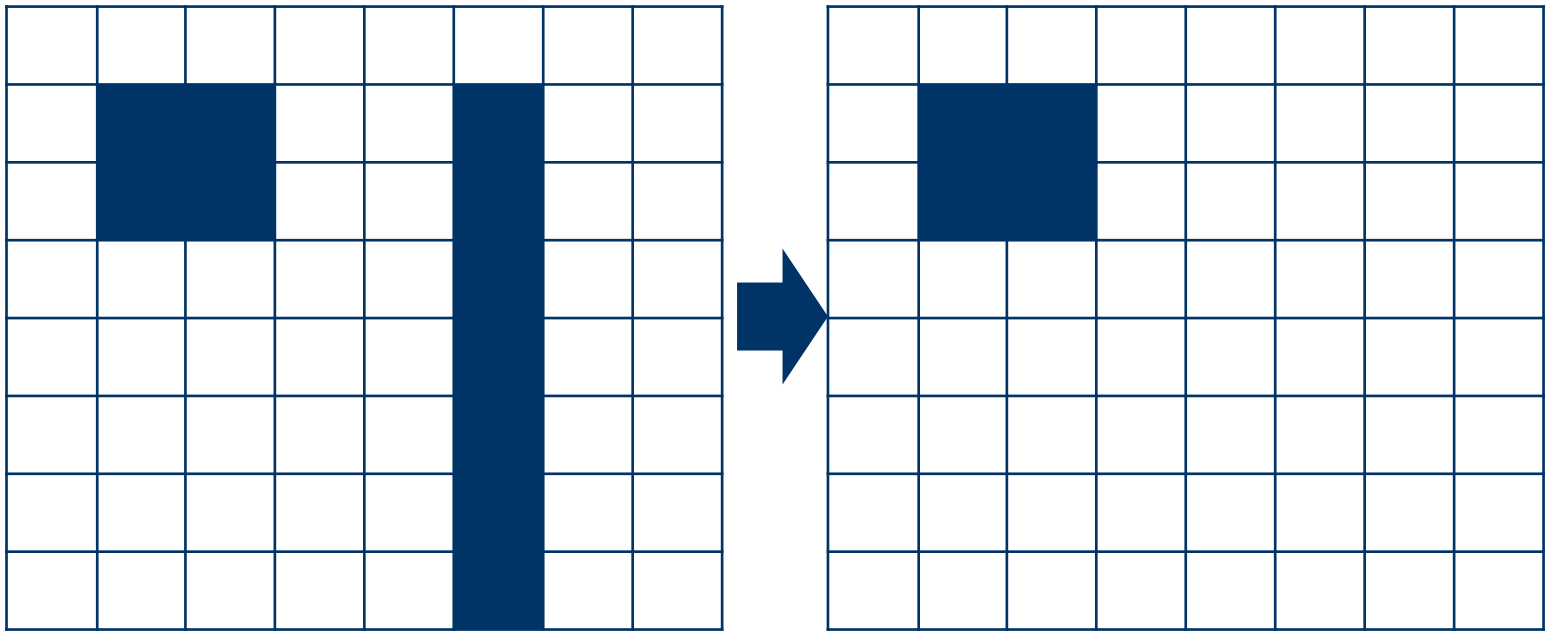
2. Markeer ook alle pixels die aan de rand EIGHT/FOUR connected zijn

Remove border blobs



3. Maak alle gemarkeerde pixels gelijk aan de background (SetSelectedToValue)

Remove border blobs

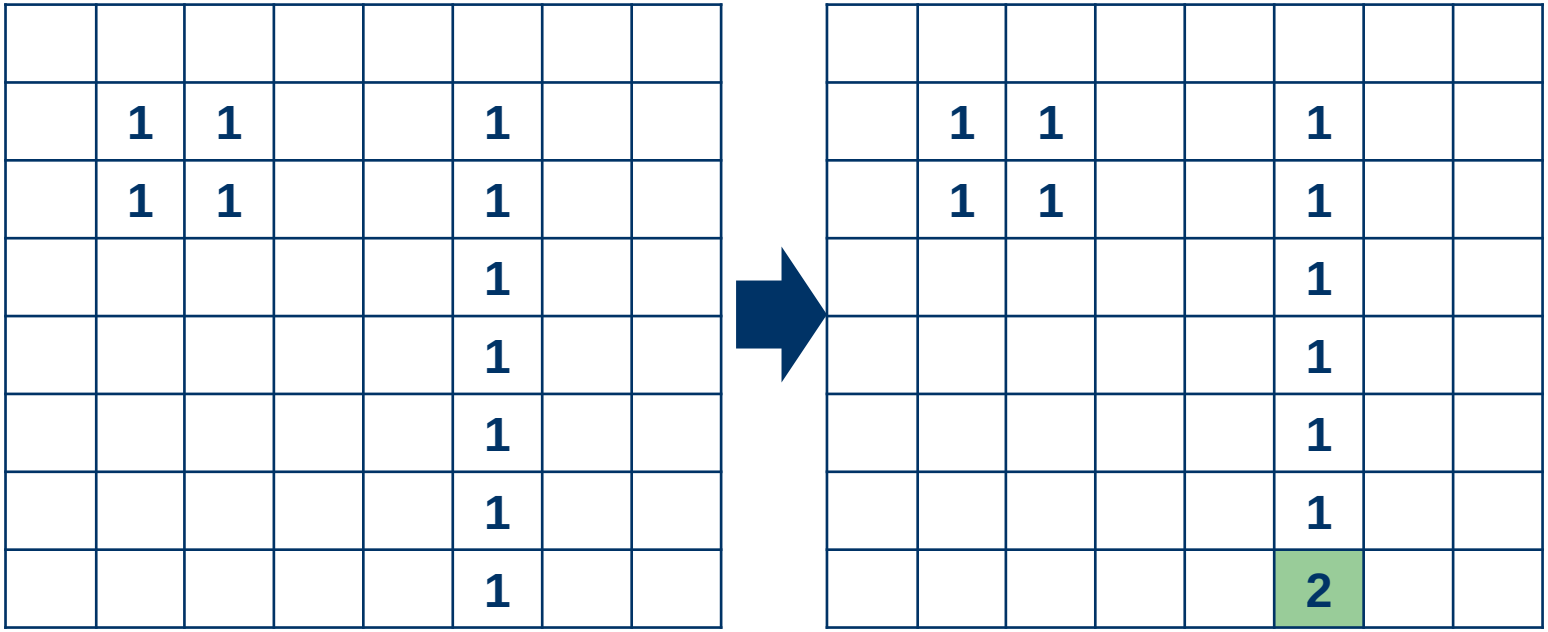


Source

Destination

Performance optimisation

Remove border blobs

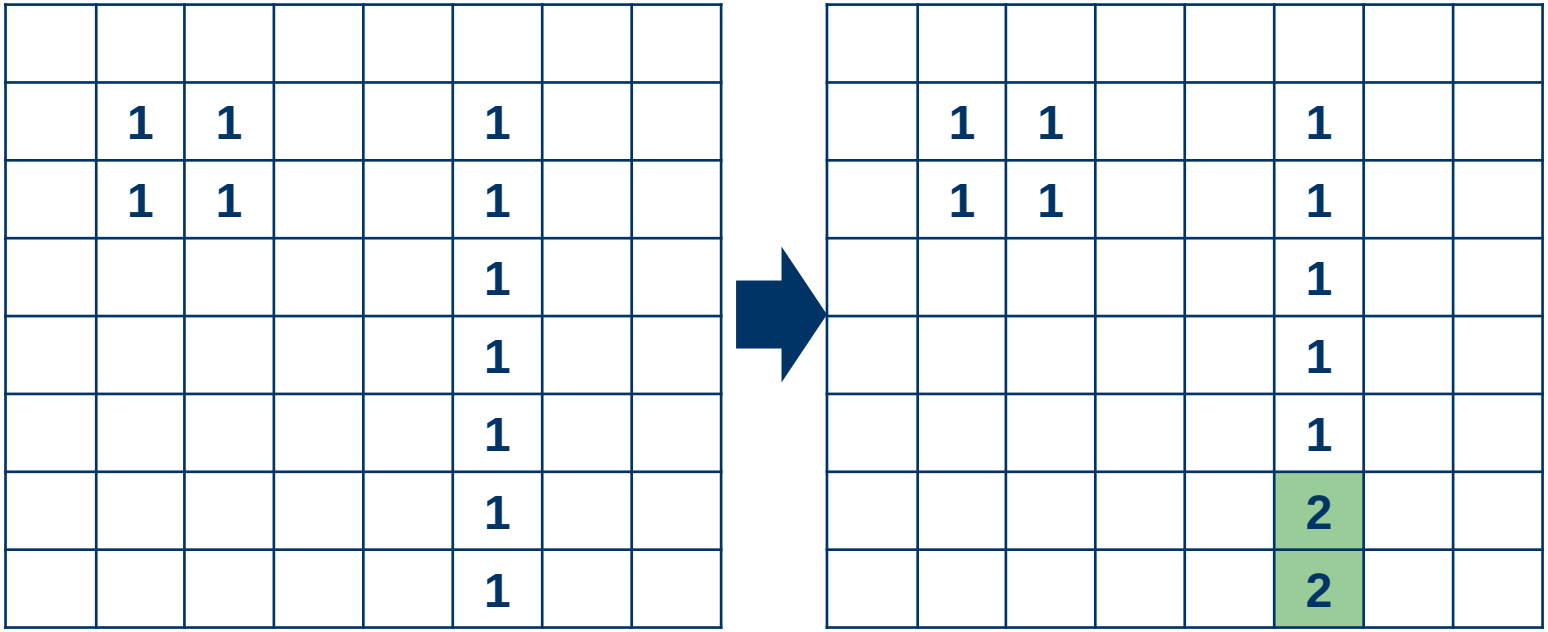


Source

Destination

`set border` duration: 1 iterations

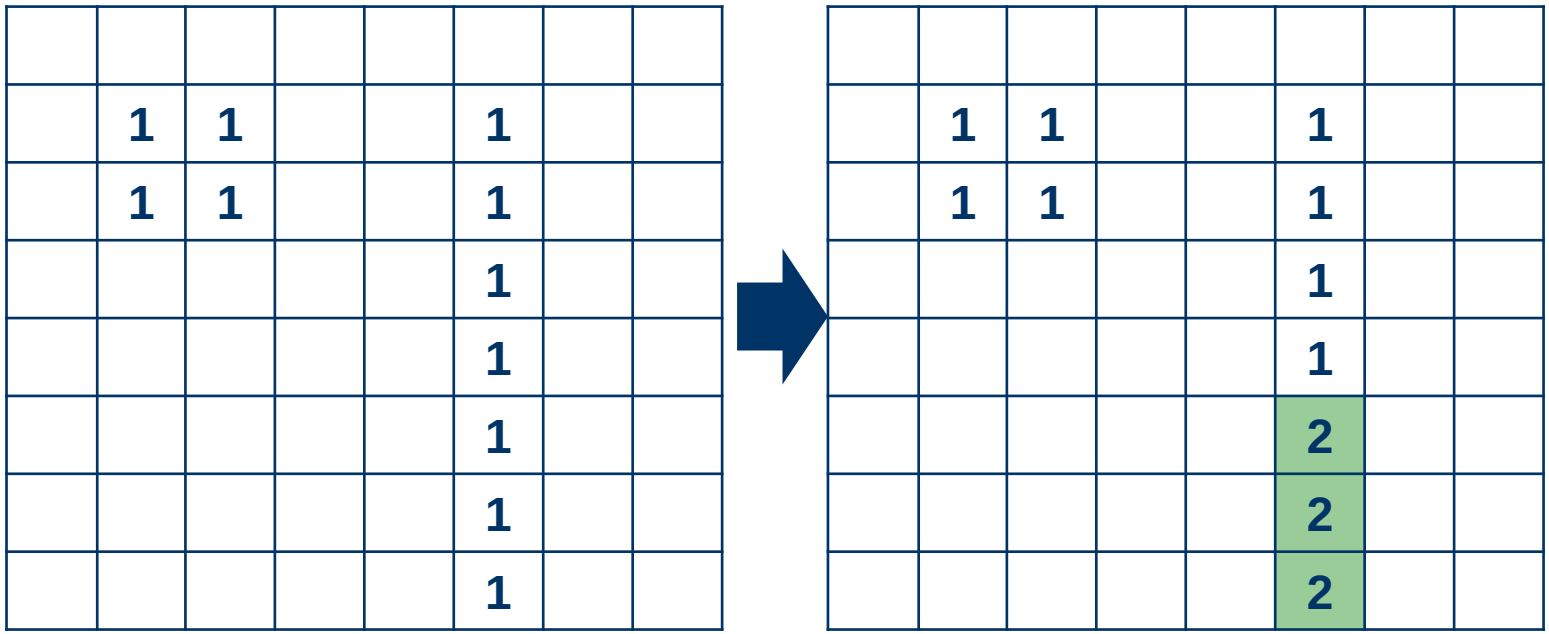
Remove border blobs



Source **Destination**

`FROM LB -> RO` **duration: 2 iterations**

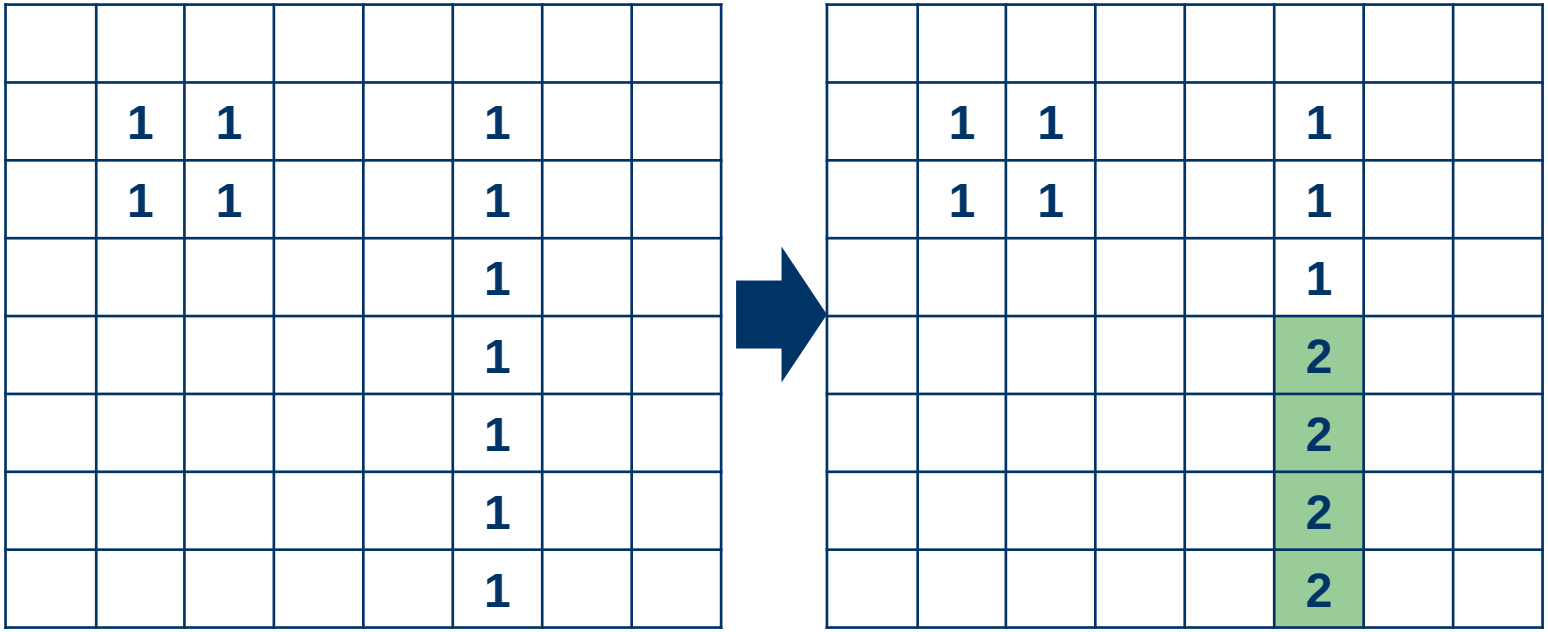
Remove border blobs



Source **Destination**

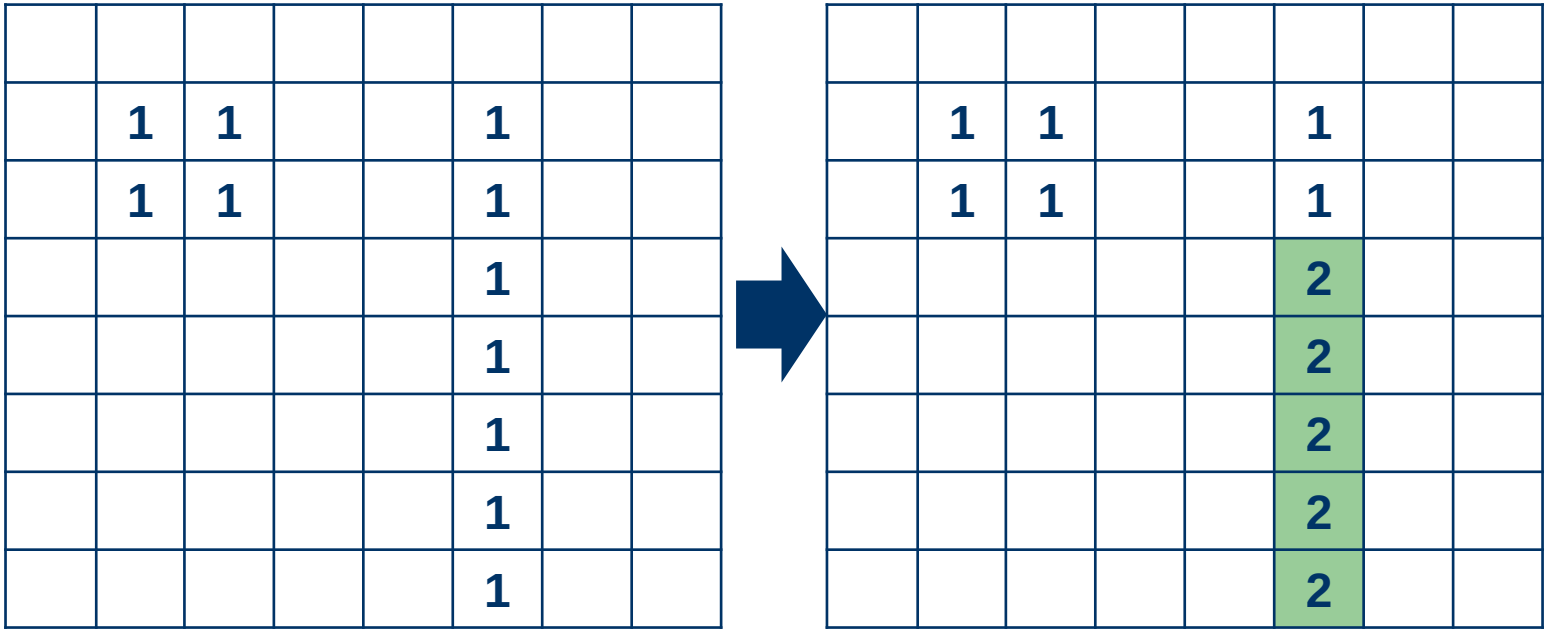
`FROM LB -> RO` **duration: 3 iterations**

Remove border blobs



`FROM LB -> RO` **duration: 4 iterations**

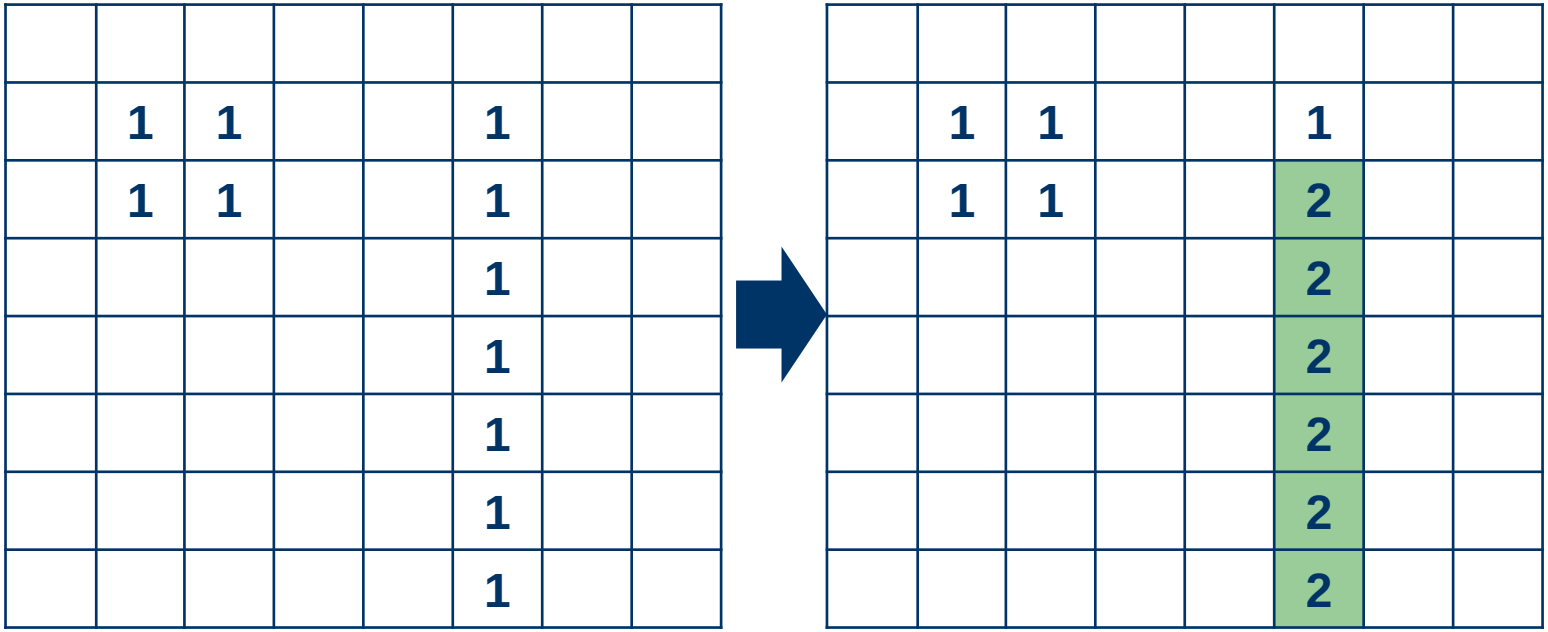
Remove border blobs



Source **Destination**

`FROM LB -> RO` **duration: 5 iterations**

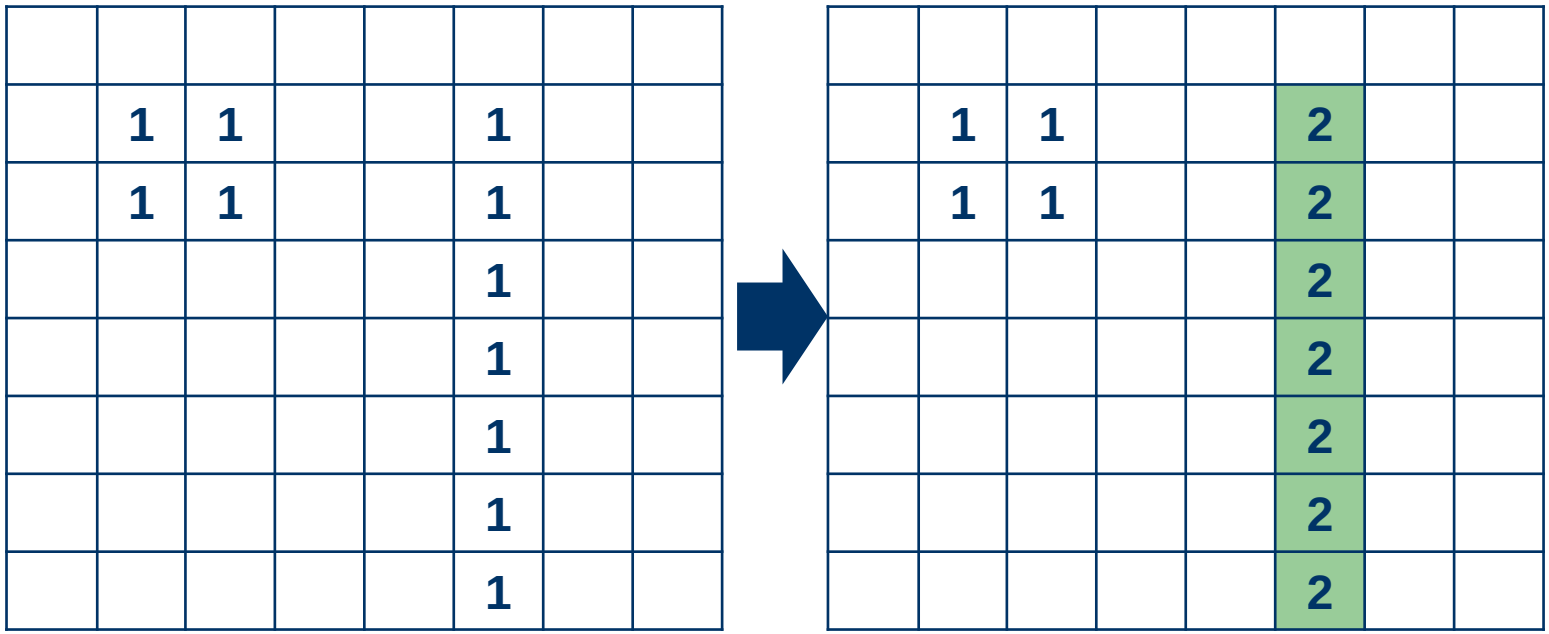
Remove border blobs



Source **Destination**

`FROM LB -> RO` **duration: 6 iterations**

Remove border blobs

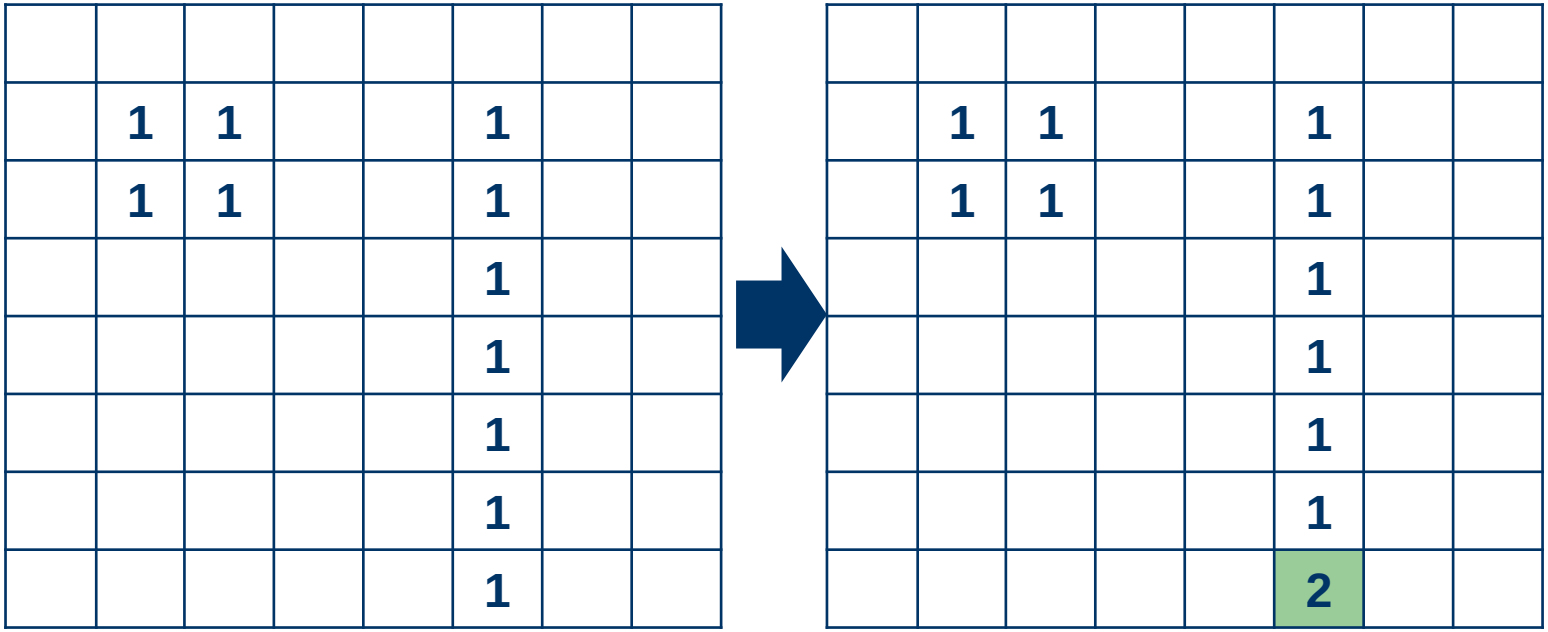


Source **Destination**

`FROM LB -> RO` **duration: 7 (+1) iterations**

Remove border blobs

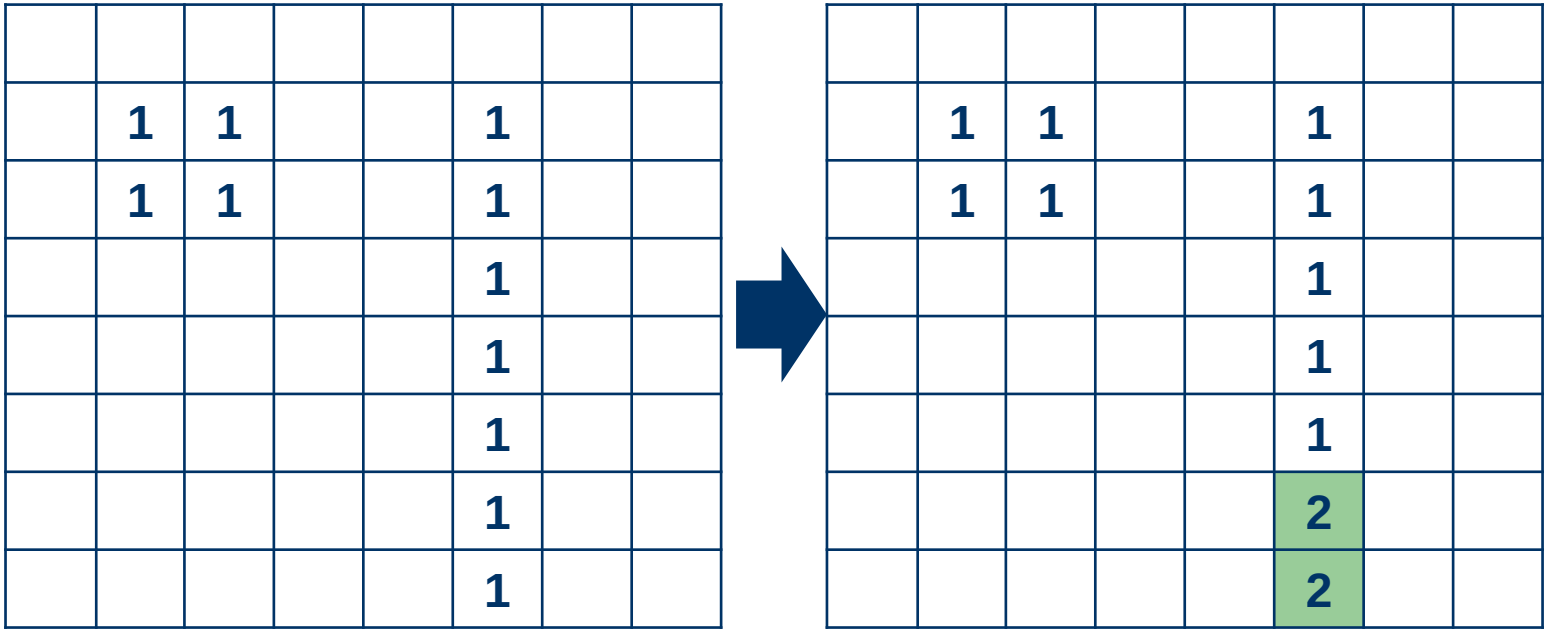
Performance



Source **Destination**

`set border` **duration: 1 iterations**

Remove border blobs

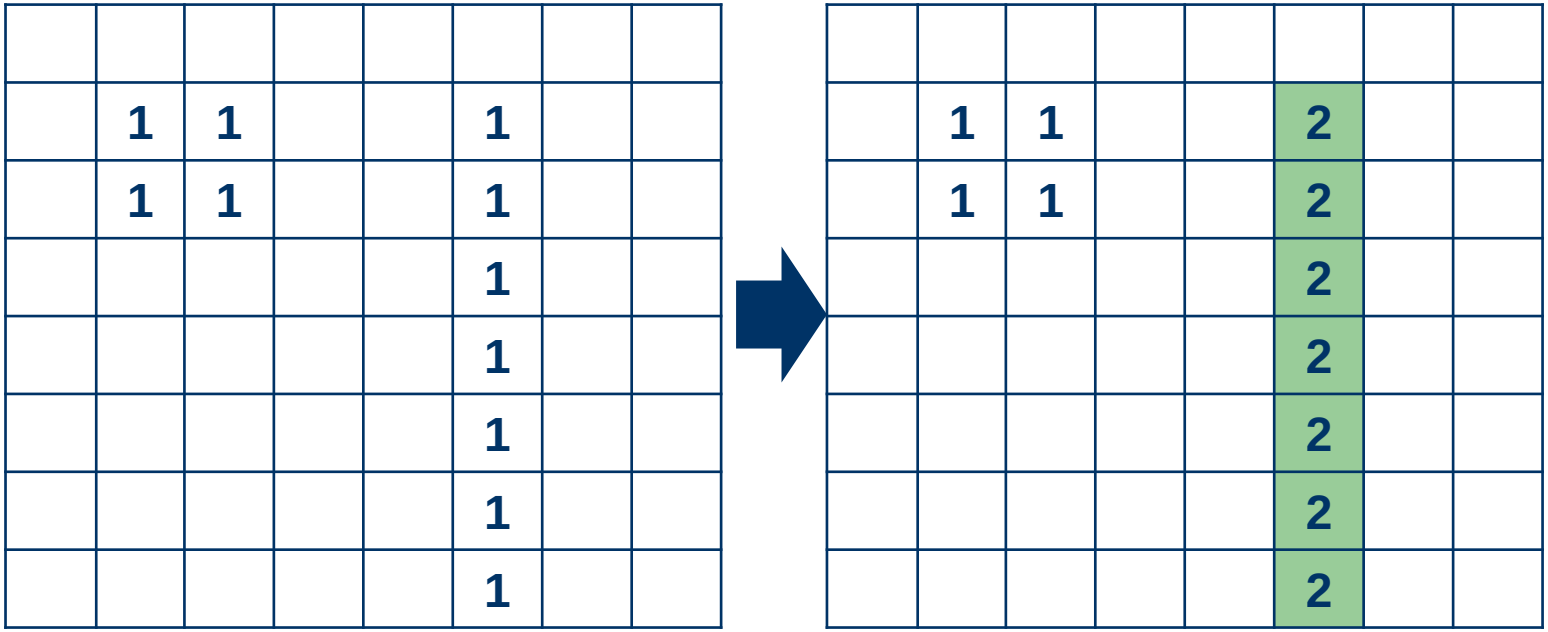


Source **Destination**

```
FROM LB -> RO
FROM RO -> LB
```

duration: 2 iterations

Remove border blobs



Source **Destination**

```
FROM LB -> RO
FROM RO -> LB
```

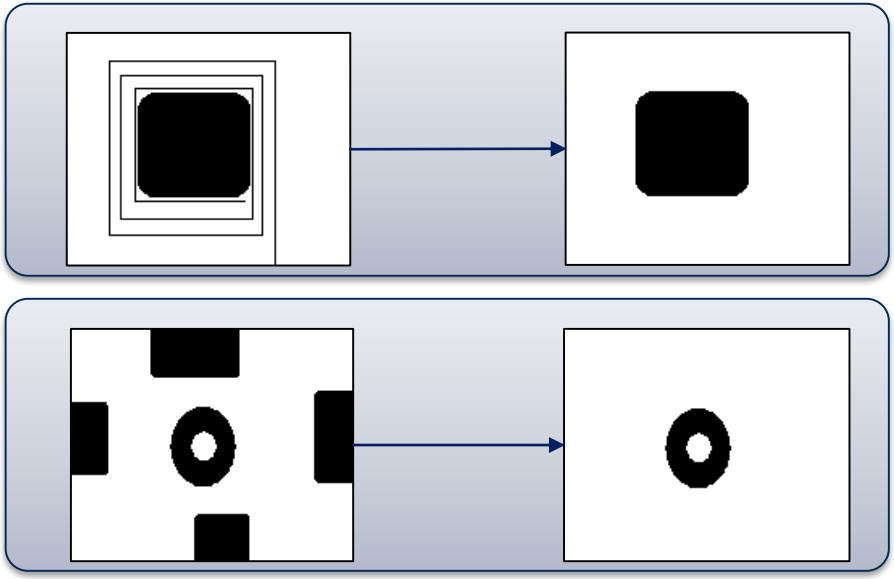
duration: 3 (+1) iterations

Remove border blobs

Opdracht

Implementeer de functies:

- iNeighbourCount()
- vRemoveBorderBlobs()



Remove border blobs

Vraag

Teken een 8-connected plaatje in je logboek van 10x10 pixels waarbij het besproken algoritme 19 (+1) iteraties nodig heeft.

Test het plaatje.