

Dr Michael Scott

1 This algorithm reduces the colours within an image. Multiple conditions might be required.

Algorithm 1 Posterization

Require:

a channel value, $0 \leq c_{0..2} \leq 255$
a replacement value, $0 \leq r \leq 255$
a minimum threshold, $0 \leq t_{min} \leq 255$
a maximum threshold, $0 \leq t_{max} \leq 255$

```
1: procedure POSTERIZATION( $t, c, r$ )  
2:   for  $x = 0, \text{width}, y = 0, \text{height}$  do  
3:      $c \leftarrow \text{pixel}(x, y)$   
4:     if  $t_{min} \leq c_0 \leq t_{max}$  then  
5:        $c_0 \leftarrow r$   
6:        $\text{pixel}(x, y) \leftarrow c$   
7:     end if  
8:   end for  
9: end procedure
```
