

```
1  #!/usr/bin/env python
2  """ vsdif Compute local 1x1x1 thresholded difference using the buffer method """
3  import sys
4  from numpy import *
5  from v4 import vx
6  from vxbuffer import *
7
8  of= ' '
9  vxif= ' '
10 clist = vx.vxparse(sys.argv, "if= of= th= -v - ")
11 exec (clist )
12
13 if 'OPT' in locals():
14     print ("vsdif 1x1xn local thresholded difference filter")
15     print ("if= input file")
16     print ("of= output file")
17     print ("th= threshold value")
18     print ("[-v] verbose mode for very small images")
19     exit(0)
20
21 optv = 'OPTv' in locals()
22 threshold = int(th)
23
24 invx = vxIbuf(vxif, 2);
25 outvx = vxObuf( of );
26 im = invx.i
27 imr = empty( im[0].shape, dtype=im.dtype);
28 while invx.read():
29     im = invx.i
30
31     for y in range(im.shape[1] ):
32         for x in range(im.shape[2]):
33             new_val = 0
34             if abs(int(im[0][y][x]) - int(im[1][y][x])) > threshold:
35                 new_val = 255
36             else:
37                 new_val = 128
38             imr[y][x] = new_val
39
40     if optv:
41         print (imr)
42     outvx.add(imr)
43
44 outvx.close()
45
```