

---

Subject: not-quite median filter

Posted by [JJ](#) on Thu, 30 Sep 2010 19:38:56 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

I would like to do something that is similar to, but not quite the same as, a median filter to a 2D array. Instead of choosing the median value in a box surrounding each pixel, I would like to choose the value in that box that occurs most frequently.

For example, if I had

```
1 1 1 1 1
1 1 1 1 1
2 2 2 2 2
2 2 3 3 3
3 3 3 3 3
```

The median would be 2, but I would want the value 1 (it occurs 10 times, which is more than the 8 instances of the value 3 or the 7 instances of the value 2).

Can anyone think of a clever way to do this that would be fast in IDL (ie, no looping through the pixels)? I need it to work for box sizes up to around 21. Ties may be broken arbitrarily.

Is there already a name for this concept?

Thanks.

-Jonathan

---