
Subject: Re: Calculating difference between each element in array from previous
Posted by [Phillip Bitzer](#) on Sat, 30 Mar 2013 00:07:08 GMT

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For a start, I think I see where you are differencing adjacent elements of an array. This can be done without looping:

```
diff = arr - SHIFT(arr, 1)
```

Note SHIFT will wrap around values, so if that's not important you'll want to "mask" this values somehow.

And then, something like

```
ind = WHERE(ABS(diff) LE 500., lowCount, NCOMPLEMENT=highCount)
```

will give you the number of values less than your 500 critical value (lowCount) and greater than 500 (highCount).

I *think* this is what you're asking...

BTW, you should be *very* careful using parentheses to access your array elements. It is much better (safer) to do arr[indices]. There are reasons for this, and a good example of why can be found here:

http://www.idlcoyote.com/misc_tips/imagevarname.php

It is *highly* recommended you get in the habit of putting

```
compile_opt idl2
```

in all your routines.
