
Subject: Re: quick search of array

Posted by [R.G. Stockwell](#) on Thu, 23 Jun 2005 20:21:44 GMT

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<tanqian@hotmail.com> wrote in message

news:1119544592.305102.257100@g49g2000cwa.googlegroups.com.. .

> Hi,

>

> I have four arraies

>

> all_time = fltarr(10000)

> all_location = fltarr(3, 10000)

>

> sel_time = fltarr(4000)

> sel_location = fltarr(3,4000)

>

> the 'sel_time' is a subset of 'all_time'. Is there a quick way I could

> find index 'j' of all_time for each sel_time(i) (when

> abs(all_time(j)-sel_time(i)) lt 1e-5)? So I could use that index to

> pick the sel_location from all_location for each sel_time(i). Since I

> have multiple(~20000) such tests, loop through both of them will be too

> time consuming.

>

> Should I sort both all_time and sel_time to descent/ascent order to

> speed it up?

>

> Thanks,

>

> Qian

> Qian

>

How about the usual trick of expanding the 1D array to 2D arrays,
for instance:

```
a = all_time # (fltarr(4000)+1)
```

```
b = (fltarr(10000)+1) # sel_time
```

```
c = abs(a - b)
```

```
w = where(c lt 0.001, count)
```

```
print,count
```

Of course, you'll want to decode these where results into the two
dimensions,

and then take the row as the index with which to access the alltime array.

for instance, something like:

```
selecteddata = all_location(*,wcols)
```

Cheers,
bob
