Subject: Re: Multi-Array comparison
Posted by wlandsman on Sun, 27 Jun 2010 13:40:49 GMT
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Here's one way to do what I think you want. (I am not sure what you mean by a "best server".) If your 3 arrays are a,b, and c then

arrmax = a > b > c ;get the maximum value at each i,j
Na = total(a EQ arrmax) ;Number of times the maximum is found in the a array
Nb = total(b EQ arrmax)
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Then the maximum of Na, Nb, Nc will tell you which array has the most pixels at the maximum value. (Note that Na + Nb + Nc may be more than the total number of pixels if there are equal values.) --Wayne

On Jun 27, 4:58 am, Giuseppe Papa <giuseppep...@gmail.com> wrote:
> Hello everybody,
>
> I have three fltarr(460,483) and I would like to compare them, finding
> for each element i,j of the arrays which one among the three guarantee
> the maximum value. However, since I just need to know a sort of "best
> server" index, I'm looking for the percentage so finding the total
> amount will be enough. I've found out the WHERE function, but in my
> case (three or more arrays) should I make a loop? Any ideas?
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>
> Giuseppe

Subject: Re: Multi-Array comparison
Posted by Giuseppe Papa on Sun, 27 Jun 2010 14:36:55 GMT
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On 27 Giu, 15:40, wlandsman <wlands...@gmail.com> wrote:
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>
>

Thank you Wayne. First of all, you must forgive me for my bad
English. :-)

I'm talking about "best server" because each array element corresponds
to an electric field value, and I have to evaluate the radio coverage
of an area. Each array belongs to an antenna simulation, so I have to
find which one is "dominant" in each point i,j. I was thinking about
something like this:

```
for i1=0,nfiles-1 do begin ;nfiles depends on the number of my
simulations, let's say three anyway
        apparray=fltarr(nx,ny)+1
        for i2=0,nfiles-1 do begin
         if (i2 ne i1) then begin
            nbestpos=where(storedfiles(*,*,i1) le
storedfiles(*,*,i2))
            if max(nbestpos) ne -1 then apparray(nbestpos)=0
         endif
        endfor
```

But something doesn't work properly (floating dividing by 0 and this
one "Attempt to subscript MAP2 with I2 is out of range."

---

Subject: Re: Multi-Array comparison
Posted by Jeremy Bailin on Mon, 28 Jun 2010 02:57:03 GMT
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On Jun 27, 9:40 am, wlandsman <wlands...@gmail.com> wrote:

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Or how about:

```
maxval = max([[[a]],[[b]],[[c]]], dimen=3, ind)
print, max(histogram(ind / n_elements(a)))
```

-Jeremy.

---

Subject: Re: Multi-Array comparison
Posted by Jeremy Bailin on Mon, 28 Jun 2010 15:00:43 GMT
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On Jun 27, 10:57 pm, Jeremy Bailin <astroco...@gmail.com> wrote:
> On Jun 27, 9:40 am, wlandsman <wlands...@gmail.com> wrote:
>
>
>
>

>
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> print, max(histogram(ind / n_elements(a)))
>
> -Jeremy.

Of course, if you already have your storedfiles array set up like
that, susbtitute that for the [[[a]],[[b]],[[c]]] mess. :-)=

I should also point out that, unlike Wayne's code, this one doesn't
attribute equal values to each case where they occur - just to the
first one. So you can construct pathological inputs where it gives the
wrong answer - though if you never or rarely expect to encounter the
same value then you'll never run into it.

-Jeremy.