Subject: Re: Where problem
Posted by Wout De Nolf on Thu, 04 Feb 2010 10:22:30 GMT
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On Thu, 4 Feb 2010 01:27:26 -0800 (PST), Dave_Poreh
<d.poreh@gmail.com> wrote:

> Folks
> I canï¿½t solve this problem. Will somebody tells me what is going on?
> x=findgen(100)
> y=[30,40,50,80]*1.0
> index=where(x eq y)
> but every time gives me:
>> index=-1
> Any help highly appreciated
> Cheers
> Dave

Two issues:

1. wrong use of where:

IDL> x=findgen(100)
IDL> y=[30,40,50,80]
IDL> b=x eq y

b will have 4 elements (smallest of the x and y dimension) and will
b[i] will only be 1 when x[i] eq y[i]. So this is not what you want.

What you can do is:
ind=value_locate(x,y)
ind2=where(x[ind] ne y,ct)
if ct ne 0 then ind[ind2]=-1

2. comparing floating point numbers, see:
www.dfanning.com/code_tips/comparearray.html

IDL> x=findgen(100)
IDL> y=[30,40,50,80]*1.0

I would do something like

```
small=1e-6
ind=value_locate(x,y)
ind2=where(abs(x[ind] - y) gt small,ct)
if ct ne 0 then begin
   ind[ind2]++
```

```
    ind2=where(abs(x[ind] - y) gt small,ct)
    if ct ne 0 then ind[ind2]=-1
endif
```

See David's page on what "small" should be.

You could also do something like this

```
x=rebin(x,n_elements(x),n_elements(y),/sample)
y=rebin(transpose(y),n_elements(x),n_elements(y),/sample)
ind=where(abs(x - y) gt small, ct)
```

... and so on ... which is ok for small arrays but not for large arrays (memory issues)
