Subject: Re: Where and lists of regions
Posted by JD Smith on Tue, 12 Oct 2004 04:39:15 GMT
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On Mon, 11 Oct 2004 14:47:23 +0200, Ben Panter wrote:

> Hi,
>
> I'm in the middle of trying to simplify a large body of code which I
> inherited a few years ago and have been mangling ever since. Among other
> things, I'd be interested in anyone's thoughts on simplfying the case
> statement I use (full code below). Basically I have a list of regions
> which I want to remove from a vector. At the moment I use CASE to call
> WHERE to remove the regions elements (case to choose how many where
> statements are required). This is fine for a few regions, but I'm sure
> there must be a neater way, as when I need 10 regions, or even 20, this
> code is going to look terrible...
>
> I've written a code with EXECUTE, but I may want to use VM in the future
> so I'd like to avoid it if possible.

How about:

```
flag=bytarr(n_elements(wave))
for i=0,n_regions-1 do $
  flag+=wave gt reg[i,0] AND wave lt reg[i,1]
return, where(~flag)
```

There are other methods for removing more complicated lists of unwanted
items. From the HISTOGRAM tutorial:

> Problem: Remove some elements, listed in random order, from a vector.
>
> ```
> IDL> vec=randomu(sd,10)
> IDL> remove=[3,7,2,8]
> IDL> keep=where(histogram(remove,MIN=0,MAX=n_elements(vec)-1) eq 0,cnt)
> IDL> if cnt ne 0 then vec=vec[keep]
> IDL> print,keep
>        0       1       4       5       6       9
> ```
>
> We've used HISTOGRAM and WHERE to simply generate a list of kept
> indices.

JD