Subject: Re: idl array operations
Posted by Paul Van Delst[1] on Tue, 28 Feb 2006 23:26:07 GMT
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alex922@gmail.com wrote:
> Hi,
>
> I'm pretty new to IDL and someone told me to avoid loops.
>
> I have the following problem. I have an array of elements whose values
> range from 0 to 360, and I have to subtract a number if the value is
> greater than 180.
>
> My initial reaction is to create a loop and use condition statements to
> perform the calculations.
>
> Is there a 'one liner' array operation which would allow me to do this
> without using loops?

Dunno about a one-liner:

```
loc=where(data gt 180.0,count)
if (count gt 0) then data[loc]=data[loc]-number
```

There's probably a solution via HISTOGRAM, too. :o)

paulv

--
Paul van Delst
CIMSS @ NOAA/NCEP/EMC

Subject: Re: idl array operations
Posted by alex922@gmail.com on Tue, 28 Feb 2006 23:27:36 GMT
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Thanks a bundle!

Subject: Re: idl array operations
Posted by mmeron on Tue, 28 Feb 2006 23:34:07 GMT
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In article <1141168957.087822.106350@i39g2000cwa.googlegroups.com>,
"alex922@gmail.com" <alex922@gmail.com> writes:

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>
> Thanks,
> Alex
>
Taking your array as arr and the nuber to be subtracted as x, the line
would be
 arr = arr - x*(arr gt 180)

Mati Meron | "When you argue with a fool,
meron@cars.uchicago.edu | chances are he is doing just the same"

Subject: Re: idl array operations
Posted by Craig Markwardt on Wed, 01 Mar 2006 06:50:51 GMT
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mmeron@cars3.uchicago.edu writes:
> In article <1141168957.087822.106350@i39g2000cwa.googlegroups.com>,
"alex922@gmail.com" <alex922@gmail.com> writes:
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...
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> would be
>   arr = arr - x*(arr gt 180)

Or, if you are trying to map longitude in the 0 to 360 range to the
-180 to 180 range, I often would use this:

  LONGITUDE = ((LONGITUDE + 180) MOD 360) - 180

Craig

--

 --- -------------
Craig B. Markwardt, Ph.D.   EMAIL: craigmnet@REMOVEcow.physics.wisc.edu
Astrophysics, IDL, Finance, Derivatives | Remove "net" for better response
 --- -------------

Subject: Re: idl array operations
Posted by alex922@gmail.com on Wed, 01 Mar 2006 22:44:20 GMT
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Yes, this was my goal.

Thanks Craig!