Subject: Re: Getting rid of loops
Posted by davidf on Thu, 17 Feb 2000 08:00:00 GMT
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Mark Hadfield (m.hadfield@niwa.cri.nz) writes:

```
The UNIQ function, along with the SORT function, will do this:
>
    print, UNIQ(cycles, SORT(cycles))
>
>
 or if you know that your array is already monotonic, just:
>
    print, UNIQ(cycles)
Uh, actually:
 print, cycles(UNIQ(cycles))
But we know what you mean. :-)
Cheers.
David
David Fanning, Ph.D.
Fanning Software Consulting
Phone: 970-221-0438 E-Mail: davidf@dfanning.com
Coyote's Guide to IDL Programming: http://www.dfanning.com/
Toll-Free IDL Book Orders: 1-888-461-0155
```

Subject: Re: Getting rid of loops
Posted by Michael Asten on Fri, 18 Feb 2000 08:00:00 GMT
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Try this. Good luck, Michael Asten

```
function fn,cycles
cycles_and=[cycles,max(cycles)]
cycles_shift=[cycles[0],cycles]
print, cycles_and
print, cycles_shift
b=where(cycles gt cycles_shift)
sub_cycles=[ cycles_shift[b[0]], cycles_and[b] ]
return,sub_cycles
```

```
cycles=[2,2,2,2,2,6,6,7,7,7,9,9,9,27,27,27]
print,fn(cycles)
;[2,6,7,9,27]>
end
Jacob Noel-Storr wrote:
> I am trying to create non-loopy IDL code for a project I am working on.
> I have a very long list of integers ('cycle numbers') and I need some way of
> creating an array that consists of just the cycle numbers. For example if I
> had:
>
>> cycles=[2,2,2,2,2,6,6,7,7,7,9,9,9,27,27,27]
> then I would want a function which would do this kid of thing:
>> print,fn(cycles)
> [2,6,7,9,27]
> At the moment this is done by looping through the data twice. Once to count
> how many different values there are and once to write the different values
> into an array.
 Any suggestions about how this could be achieved without the two 'for'
> loops?
> Thanks.
> Jacob
>
> Jacob Noel-Storr
> Astronomy Department
> Columbia University / Biosphere 2 Center
> www.astro.bio2.edu/jacob/
```

Subject: Re: Getting rid of loops
Posted by Mark Hadfield on Fri, 18 Feb 2000 08:00:00 GMT
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Jacob Noel-Storr < jake@astro.columbia.edu> wrote in message news:88i60t\$477\$1@newsmaster.cc.columbia.edu...

> ..

> jake@astro.columbia.edu

```
> I have a very long list of integers ('cycle numbers') and I need some way
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> had:
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>> print,fn(cycles)
> [2,6,7,9,27]
The UNIQ function, along with the SORT function, will do this:
  print, UNIQ(cycles, SORT(cycles))
or if you know that your array is already monotonic, just:
  print, UNIQ(cycles)
Mark Hadfield
m.hadfield@niwa.cri.nz http://katipo.niwa.cri.nz/~hadfield/
National Institute for Water and Atmospheric Research
PO Box 14-901, Wellington, New Zealand
```