
Subject: Re: Shortcut needed

Posted by [Martin Schultz](#) on Mon, 17 Nov 1997 08:00:00 GMT

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Daniel Williams wrote:

>
> Hi fellow IDL-users,
>
> I have a program which runs slower than I like, and wonder if someone
> could help me speed it up a bit.
>
> My data is an array of structures, call it 'a'. One element of the
> structure, call it 'n' is an integer, another is a quantity which I
> want to add up, call it 'x'.
>
> There are about 100000 elements in this array. The integer n, marks
> data as being of a certain type. I want to make a new array, call it
> 'y', which has as its nth element the sum of all the x's which have a
> n-value of n. I currently do this as follows,
>
> for n=0, n_max do begin
> y[n] = total(a[where(a.n eq n)].x)
> endfor
>
> The trouble is that the loop is slow, as for loops always are. Does
> anyone out there know a better way to do this kind of sorting?
>
> Thanks,
> Daniel Williams
> --
> +-----+
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another option may be to sort the data and use the uniq function:

```
a=a(sort(a.n))
```

```
ua=uniq(a.n)
```

This would give you an array of indices of the first occurrence of
all n values and you could then loop like

```
for i=0,n_elements(ua)-2 do tot(i)=total(a.value(ua(i):ua(i+1)))
```

Haven't tried it, but should work - don't know how fast though.

Martin.

--

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