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Subject: Re: Returning ARRAYS from functions?

Posted by [Mark Hadfield](#) on Wed, 13 Mar 2002 20:19:36 GMT

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"R.A" <roa@aber.ac.uk> wrote in message news:1016045211.381484@dyfi...

>  
> Is what I have said correct? ... that you need to pass data arrays  
> from IDL functions as data structures as arrays cannot be passed??

No. Arrays definitely can be passed to & from IDL functions & procedures.

Are you passing the data via a function return value, named parameters or keyword parameters? There are a few subtleties to the way IDL passes parameters that could be ocnfusing you. Please tell us more about what you are doing.

--

Mark Hadfield

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Ka puwaha et tai nei

<http://katipo.niwa.co.nz/~hadfield> Hoea tatou

National Institute for Water and Atmospheric Research (NIWA)

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Subject: Re: Returning ARRAYS from functions?

Posted by [Robert Stockwell](#) on Wed, 13 Mar 2002 22:31:13 GMT

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You can return arrays from an IDL function.

-bob

```
function passarray,length
```

```
a = findgen(length > 1)
```

```
return,a
```

```
end
```

R.A wrote:

> I have been rewriting some software in IDL5.4 passed onto me  
> by a former colleague.  
> Essentially the function is required to correct an array of values  
> by applying a polynomial and then return the corrected array.  
>

> I have noted this doesnt work as I have stated although I  
> had the idea IDL could pass any dimension array to a  
> function and return the array from the function.  
>  
> What seems to have been done is to create a structure from  
> the array passed and return the structure.  
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> from IDL functions as data structures as arrays cannot be  
> passed??  
>  
> Comments please.  
>  
>  
>

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Subject: Re: Returning ARRAYS from functions?

Posted by [Craig Markwardt](#) on Thu, 14 Mar 2002 00:15:43 GMT

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"R.A" <roa@aber.ac.uk> writes:

> I have been rewriting some software in IDL5.4 passed onto me  
> by a former colleague.  
> Essentially the function is required to correct an array of values  
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> What seems to have been done is to create a structure from  
> the array passed and return the structure.  
>  
> Is what I have said correct? ... that you need to pass data arrays  
> from IDL functions as data structures as arrays cannot be  
> passed??

Yes, arrays can be passed to and from IDL functions. You said it  
"doesn't work" but that is not enough to really make a good diagnosis.

In addition to the other suggestions so far, I would offer another  
possibility. There are some cases where an array can get truncated,  
especially when multiplying quantities of different dimensions (as  
might be the case with a polynomial multiplication). My suggestion is  
to trace through your procedure and make sure the dimensions remain  
what you think they should be.

Craig

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Craig B. Markwardt, Ph.D.      EMAIL: [craigmnet@cow.physics.wisc.edu](mailto:craigmnet@cow.physics.wisc.edu)  
Astrophysics, IDL, Finance, Derivatives | Remove "net" for better response  
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