
Subject: Re: transparent routine using either readu or assoc for same array variable
Posted by [davidf](#) on Sun, 15 Feb 1998 08:00:00 GMT
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Jacobus Koster (nosuch@ix.netcom.com) writes:

> Ye of wisdom,
> I would like to write a routine to open a file and read an image stack,
> say 128x128 images, 96 of 'em. I would like to be able to pass a keyword
> to this routine, telling it to either read the whole file into an image
> array, or alternately associates it with such an array of the same name
> and dimensions.

```
FUNCTION READ_STACK, filename, ASSOCIATE=associate
IF N_Params() EQ 0 THEN filename = Dialog_Pickfile()
IF filename EQ " THEN RETURN, -1
OpenR, lun, filename, /Get_Lun
IF Keyword_Set(associate) THEN BEGIN
    image = ASSOC(lun, IntArr(128, 128))
ENDIF ELSE BEGIN
    image = IntArr(128,128,96)
    READU, lun, image
    FREE_LUN, lun
ENDELSE
RETURN, image
END
```

Now, if you want the whole stack in a variable, you type
this:

```
image = Read_Stack('myfile.dat')
```

If you want to display the 20th image, you type:

```
TV, image(*,*,19)
```

If you want to do something with a particular slice, you
probably do something like this:

```
thisImage = Reform(image(*,*,19))
TV, thisImage * factor
```

The REFORM function will get rid of the third single dimension
for you.

If you want to use the associated variable method, which
I STRONGLY recommend, and you want to display the 20th image
you do this:

TV, image(19)

The Associate variable method will only read and write the data when it is required. This will be a much more efficient way to work with this kind of data.

Cheers,

David

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