
Subject: Re: reading multiple data types into arrays
Posted by [rkombiyil](#) on Tue, 10 Jul 2007 11:28:18 GMT
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On Jul 10, 7:36 am, Josh <joshuamonta...@gmail.com> wrote:

> Hi,
>
> I'm trying to read in data from a file that has the following format:
>
> 231359152 09/25/2003 18:38:35.816 20.013574 25.668425
> 626.779 14.396667
>
> I'm having no problems getting the fourth, fifth, and sixth columns of
> data into double arrays with a statement like this:
>
> readf, lun, recNum, date, time, lat, lon, elev, geoid
>
> and a for loop. But I would like to get the second column in an
> array, too. My intuition says it should be a string because of the
> nasty '/'s in it (ultimately, I'd like these dates to be the
> independant axis values).
>
> I tried declaring the variable date as a string beforehand (date = '
> '), but then that slurps the entire line (all columns) into that
> variable. If I don't declare it as a string and try to put it into a
> string array (strArr), it becomes 9.00000.
>
> I'm reading the documentation for explicitly formatted input, but am
> having trouble figuring out how to apply it here.
>
> As always, all suggestions are greatly appreciated!
> -Josh

I usually use structures for my needs. You could just declare them as integers and read with a format specifier for these leaving out the slashes.

Assuming data is like above and with the 'nX' denoting the number of spaces I have between your data (in my file - may be different for you.), you can use:

```
;type declaration
IDL> recnum=0L & day=0 & month=0 & yyyy=0
IDL> hh=0 & mm=0 & ss=0 & dec_sec=0
IDL> lat=0. & lon=0. & elev=0. & geoid=0.
;read data from lun=2
IDL> readf,2,recnum,day,month,yyyy,hh,mm,ss,dec_sec,$
lat,lon,elev,geoid,$
format='(i9,1x,2(i2,1x),i4,1x,3(i2,1x),i3,2(2x,f9.6),$
1x,f7.3,1x,f9.6)'
```

```
IDL>print,recnum,day,month,yyyy,hh,mm,ss,dec_sec,lat,lon,$
      elev,geoid
      231359152    9    25    2003    18    38    35
816    20.0136    25.6684    626.779    14.3967
```

--

I suggest using structures. I found them very helpful. And if you have header information that you need to make use of, for your calculations (I do), then open the file, read in those required header info first, and then define structure for the (homogeneous) data part like above, and then use "replicate" to populate.

--

Hth,
/rk
