Subject: Re: Help needed with reading ASCII data
Posted by John Keck on Fri, 03 Dec 1999 08:00:00 GMT
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> I'm completely new to IDL, and I have a set of data in ASCII format. It
> is extracted from MRI data. It is a file which contains 3 columns of
> data. The first column is the x, the second is the y coordinate and the
> third is just a scaled magnitude value between 0 and 1. There are 38808
> rows of data, and the matrix size is (49, 36) and there are 22 time
> phases. I want to know if anyone has had experience in reading in data
> of this type, and how to put it into an array that can be read by IDL.

Dear Scott,

The easier thing to do (programming-wise) is to use the READCOL
procedure, which I believe is part of one of the standard libraries that
you can download (you can search these libraries from
http://www.astro.washington.edu/deutsch/idl/htmlhelp/index.h tml)

Your data file is a bit big though, so that may take quite a while.
I've found a much faster way to read in big files is to set up a
structure and a print-type format to read in the data. Something like
this:

```
filename = "foo.dat"
fmt = "(i3,3F7.2)" ; of course this has to match the format of your
columns

cog = {det $
 ,t: 0  $
 ,x: 0. $
 ,y: 0. $
 ,z: 0.)

all = REPLICATE(cog,nl) ; NL = # lines in file

OPENR,lun,/GET_LUN,filename
READF,lun, FORMAT=fmt,all
FREE_LUN,lun
END
```

Anyway, that should read in your file at one blow. You can then
re-arrange the data in your arrays as you like. (You may want to look
up the IDL help files on structures; it might be helpful to know that
you can address the fields of a structure with numbers and can to a
large extent treat a structure as an array.)

I hope that's helpful.

Sincerely,

John Keck