Subject: Re: reading large multicolumn data file
Posted by bio_amateur on Fri, 06 Aug 2010 14:23:58 GMT
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On Aug 5, 11:05 pm, Paulo Penteado <pp.pente...@gmail.com> wrote:
> On Aug 5, 8:54 pm, bio_amateur <hoangtrongminht...@gmail.com> wrote:
>
>
>
>> I have a data file (a few hundreds MB). This is a text file in the
>> format X Y1 Y2 Y3 (first column is the common x-axis data, next
>> columns are data). I can read the data and plot easily with xmgrace
>> using
>
>> xmgrace -nxy data.dat
>
>> which take a few seconds to plot. Now, I want to use IDL to read this
>> file and display using iTool. What I did was
>
>> data = read_ascii(filename)
>> myPlotData = data.(0)
>> rows = (size(myPlotData, /dimension))[0]
>> for ii=1, rows do begin
>> iPlot, myPlotData[0,*], myPlotData[ii,*], /overplot
>> end
>
>> This method takes so long. Could someone good at this can point out a
>> solution for me.
>
> The iTools, as any use of object graphics, can get heavy in memory
> when the number of vertices is large (typically, from several hundred
> thousand). This may be alleviated if change your IDL preferences to
> use hardware rendering, in case it is not already in hardware. Other
> than that, only using direct graphics will solve it, as in
>
> minx=min(myplotdata[0,*],max=maxx)
> miny=min(myplotdata[1:*,*],max=maxy)
>
> plot,[minx,maxx],[miny,maxy],/nodata
> for ii=1,rows-1 do oplot,myplotdata[0,*],myplotdata[ii,*]

Now, plotting is pretty fast. However, data reading is still slow,
compared to xmgrace. Is there a better way than using the 2 steps:
read the data into a structure, and convert a structure to an array as
the way I did.

The second question is xmgrace autoamtically choose one color for each
data field (Y1, Y2, ...). However, with direct graphics in IDL, I only

get one single color. How could we resolve this in IDL.

Thanks,
Tuan