Subject: Re: help needed to make the program run faster
Posted by Markus Schmassmann on Fri, 09 Sep 2016 09:11:57 GMT
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On 09/09/2016 08:04 AM, sid wrote:
> I need to read 500 fits files and do analysis for all this,
>
> So im doing like this,
>
> file=file_search('*.fts')
> nn=n_elements(file)
> for ii=0,nn-1 do begin
> img=readfits(file(ii),h)
> ----
> ---some analysis----
>
> endfor
> end
>
> in the analysis part also i have some for loops so the program takes so much time to process this job.
>
> So can anybody let me know whether any other faster methods are there to do this.
Hi Sid,

- use PROFILER and/or TIC & TOC to figure out what part of your code is slow
- remove loops by vectorising
- if all fits-images have the same dimensions and header structures you can put all into one array and then do analysis on all images at once, e.g.:

```
file=file_search('*.fts')
nn=n_elements(file)
img0=readfits(file(0),h0)
img=fltarr([size(img0,/dim),nn])
img[*,*,0]=temporary(img0)
h=strarr([size(h0,/dim),nn])
h[*,0]=temporary(h0)
for i=1,nn-1 do begin
 img[*,*,i]=readfits(file(i),hi)
 h[*,i]=hi
endfor

---some analysis----
```

- not knowing what analysis you do it is difficult to tell how to speed it up, but using, WHERE, SORT, UNIQ, HISTOGRAM, VALUE_LOCATE and the like sometimes makes it a lot faster

Good luck, Markus

[1] http://www.harrisgeospatial.com/docs/PROFILER.html
[2] http://www.idlcoyote.com/code_tips/slowloops.html
[3] http://www.harrisgeospatial.com/docs/WHERE.html
[4] http://www.harrisgeospatial.com/docs/SORT.html
[5] http://www.harrisgeospatial.com/docs/UNIQ.html
[6] http://www.harrisgeospatial.com/docs/HISTOGRAM.html
[7] http://www.harrisgeospatial.com/docs/VALUE_LOCATE.html
