
Subject: 2D Histogram error

Posted by [mitali1203](#) on Fri, 31 Mar 2017 11:58:09 GMT

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Hello,

I am a newbie to IDL. I am currently working on event files (which are similar to FITS files) in IDL. I have written a code which will sort out event files from a list of directories and then compute detector plane histograms (DPH) (2D Histograms, basically) for each of those event files. In the process, I have also set up a 4-D array (4,25,64,64) and run a 'for' loop to save all DPH's to this array.

However, I keep getting this error "Expression must be an array in this context:H", at the line where I have used 'hist_2d' function. I heard this is because there may not be any events in that particular file; hence IDL does not have any data values to create histogram. I guess I have to put a conditional loop (if..else) in order to detect such null event files. I am getting confused as to how this problem can be solved. It would be of great help if someone can troubleshoot this problem. Here is the code I have written- The line containing hist_2d function is where the error is-

```
function compute_dph, infile, outpath
```

```
dph=fltarr(4,25,64,64)
```

```
for quad=0,3 do begin
```

```
    data=mrdfits(infile,quad+1, /unsigned,/dscale)
```

```
    for ebin=0,24 do begin
```

```
        index=where(data.energy gt 5+ebin*10 and data.energy le 5+(ebin+1)*10)
```

```
        ;result= sxpar(H,'NAXIS2')
```

```
        ;if result = 0 then dph(0,0,0,0)=qdph
```

```
        ;endelse
```

```
        qdph=hist_2d(data(index).detx,data(index).dety,MAX1=63,MAX2= 63,MIN1=0,MIN2=0)
```

```
        dph(quad,ebin,*,*)=qdph
```

```
    ;tv,bytsc1(rebin(qdph,320,320,/sample))
```

```
    endfor
```

```
endfor
```

```
names=strsplit(infile, '/', /EXTRACT)
stem=names(N_ELEMENTS(names)-1)
outfile=strmid(stem,0,srtlen(stem)-3)+'dph'
outfile=outpath+outfile
save,dph,filename=outfile

print,infile,outpath

return,0

end
```
