
Subject: Re: explain THIS one

Posted by [cmancone](#) on Mon, 04 Feb 2008 15:23:07 GMT

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On Feb 4, 9:51 am, Spon <christoph.b...@gmail.com> wrote:

> On Feb 4, 2:31 pm, cmanc...@ufl.edu wrote:

>

>

>

>> On Feb 4, 9:29 am, cmanc...@ufl.edu wrote:

>

>>> I'm having an error in my code and I stop it to check out what is

>>> going on. Here's the three relevant lines of code:

>

>>> minmag = min(sims[mag,*],max=maxmag)

>>> nbins = (maxmag-minmag)/magbinsize

>>> magres = fltarr(3*nfilters,nbins)

>

>>> Here's some commands I type into a command line to investigate my

>>> issues:

>

>>> IDL> help,nbins

>>> NBINS FLOAT = 7.00000

>>> IDL> help,magres

>>> MAGRES FLOAT = Array[6, 6]

>

>>> Anyone see a problem here? nbins is a float of size 7.0, and yet

>>> magres ends up with 6 rows!!!! To add to the fun I then type the

>>> following:

>

>>> IDL> nbins = 7.0

>>> IDL> magres = fltarr(3*nfilters,nbins)

>>> IDL> help,magres

>>> MAGRES FLOAT = Array[6, 7]

>

>>> To summarize, my array is created with the wrong dimensions, so I re-

>>> assign one of the variables with the exact same value that it had

>>> before, recreate my array, and it works! ?????? Looks like a bug to

>>> me...

>

>> And in case anyone thinks this might be part of the problem:

>

>> IDL> help,nbins

>> NBINS FLOAT = 7.00000

>> IDL> help,nfilters

>> NFILTERS LONG = 2

>> IDL> magres = fltarr(3*nfilters,long(nbins))

>> IDL> help,magres

```
>> MAGRES      FLOAT    = Array[6, 6]
>
> help,fltarr(6,6.99)
> <Expression>  FLOAT    = Array[6, 6]
>
> nbins = (maxmag-minmag)/magbinsize
> If this ever returns a value just under 7.00000 it'll always be
> rounded down when it's converted . I suspect this is what's happening
> to you.
>
> To test it, you could try:
> magres = fltarr(3*nfilters,round(nbins))
>
> Does this fix your problem?
> Chris
```

Arrgh!! I should have seen that one coming, I've read that article before and have even explained to others the dangers of floating-point representation. Oh well. Thanks for the help guys!
