
Subject: IDL 5.1.1 TRIANGULATE (spherical) bug
Posted by [Jonathan Joseph](#) on Fri, 25 Sep 1998 07:00:00 GMT
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Mostly just a warning:

I've told RSI about this. I wonder if it's the same on other platforms. I'm running hpux 10.20.

It is ironic that I should find a new bug in TRIANGULATE in 5.1.1, when the only reason I upgraded from 5.0 in the first place was to fix a different bug in TRIANGULATE - which it did. The new bug is really new (ie. not there in 5.0)

The bug only seems to occur when doing a spherical triangulation with double precision arrays, and only if you try and pass the first two arguments (arrays of longitudes and latitudes) as expressions (created on the fly) - which is exactly what SPH_SCAT does to avoid having the original arrays reordered

The following line is from SPH_SCAT

```
TRIANGULATE, 1.0*lon, 1.0*lat, SPHERE=s, tr, FVALUE=fcopy, /DEGREES
```

try the following code tweaked from the IDL manual

```
lon = randomu(seed,50) * 360 - 180d  
lat = randomu(seed,50) * 180 - 90d  
f = dblarr(50) + 1
```

```
r = sph_scat(lon,lat,f)
```

or

```
triangulate,1.0*lon,1.0*lat,tr,fvalue=f,sphere=s,/degrees
```

and see if you get the same error:

```
% Attempt to store into an expression: <DOUBLE   Array[50]>.
```

Yes, I know that there are some simple workarounds, like re-writing SPH_SCAT to create duplicate arrays in local variables before calling TRIANGULATE.

I suspect RSI will want to fix this bug in TRIANGULATE

-Jonathan
