Subject: Rounding errors and the New Graphics image routine Posted by Gordon Farguharson on Wed, 25 Sep 2013 19:42:59 GMT

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Hi All

I'm posting this message as a reference, primarily for myself, in case I ever again find myself beating my head against the wall for several hours.

```
IDL > a = findgen(350,332)
IDL> x = 2000. * findgen(350) / 350.
IDL > y = 2000. * findgen(332) / 332.
IDL> p = image(a, x, y, AXIS_STYLE=2)
% Loaded DLM: PNG.
```

Everything is fine in IDL land so far...

```
IDL > x = 2000. * findgen(350) / 350. + 2.8e5
IDL > y = 2000. * findgen(332) / 332. + 3.8e6
IDL> p = image(a, x, y, AXIS_STYLE=2)
% Loaded DLM: QHULL.
% QHULL: Vector must have 350 elements: YIN
% Execution halted at: $MAIN$
```

WTF!

Several hours later (and many more expletives):

```
IDL > x = 2000. * findgen(350) / 350. + 2.8D5
IDL > y = 2000. * findgen(332) / 332. + 3.8D6
IDL> p = image(a, x, y, AXIS STYLE=2)
IDL> p = image(a, x/1000., y/1000., AXIS_STYLE=2)
```

I guess I should have realized sooner that the problem would be due to a rounding error. Maybe this post will help somebody else out.

Gordon

Subject: Re: Rounding errors and the New Graphics image routine Posted by robseigel on Thu, 28 Nov 2013 13:22:25 GMT

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```
On Wednesday, September 25, 2013 3:42:59 PM UTC-4, Gordon Farguharson wrote:
```

- > Hi All
- >

beating my head against the wall for several hours. > > > IDL> a = findgen(350,332)IDL> x = 2000. * findgen(350) / 350.> IDL> y = 2000. * findgen(332) / 332.> > IDL> p = image(a, x, y, AXIS_STYLE=2) > % Loaded DLM: PNG. > > Everything is fine in IDL land so far... > > IDL> x = 2000. * findgen(350) / 350. + 2.8e5IDL> y = 2000. * findgen(332) / 332. + 3.8e6IDL> p = image(a, x, y, AXIS_STYLE=2) > % Loaded DLM: QHULL. % QHULL: Vector must have 350 elements: YIN > % Execution halted at: \$MAIN\$ > > > WTF! > > Several hours later (and many more expletives): > > > > > IDL> x = 2000. * findgen(350) / 350. + 2.8D5 IDL> y = 2000. * findgen(332) / 332. + 3.8D6> > IDL> p = image(a, x, y, AXIS_STYLE=2)

> I'm posting this message as a reference, primarily for myself, in case I ever again find myself

```
> IDL> p = image(a, x/1000., y/1000., AXIS_STYLE=2)
> 
> I guess I should have realized sooner that the problem would be due to a rounding error.
Maybe this post will help somebody else out.
> 
> Gordon

Very helpful. Thanks!
```