
Subject: Error plotting polyline entities from a shapefile

Posted by [Burch](#) on Wed, 20 Sep 2017 13:49:25 GMT

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IDL is generating an error when I try to plot the polyline entities within a shapefile using function graphics.

First, I initialize the map and display a shapefile with polygon entities. (The shapefiles I'm using are from

<http://strimaps.si.edu/portal/home/item.html?id=21a630266ea54da39cb368afe755f6af>
One is in the BaseMap layer and the other is in the BCI Trails layer.)

```
outlineShapeFile = '[path_to_directory]/BaseMap/BCNM_land.shp'
trailsShapeFile = '[path_to_directory]/BCI_Trails/BCI_Trails.shp'
```

```
basemap = map('Transverse Mercator', $
  ellipsoid='WGS 84', $
  false_easting = 500000d, $
  false_northing = 0.0, $
  center_longitude = -81.0, $
  limit = [9.12, -79.89, 9.19, -79.81], $
  fill_color = "light_blue", $
  /box_axes)
```

```
outline = mapContinents(outlineShapeFile, $
  fill_color = 'pale goldenrod', $
  /noclip)
```

Naturally, I attempt to display the polyline entities:

```
trails = mapContinents(trailsShapeFile, /noclip)
```

This generates the following error:

```
% Subscripts are not allowed with variable attributes.
```

I played around with the call to MAPCONTINENTS() for a while and didn't get anywhere. Note that removing /noclip gets rid of the error but nothing is plotted. Anyway, I decided to go about it a bit more manually and make the plot using IDLFFSHAPE() and POLYLINE():

```
trailsShape = idlFFShape(trailsShapeFile)
trailsShape.getProperty, n_ent = nEnt
trailsEnt = trailsShape.getEntity(/all)
```

```
for i=0, nEnt - 1 do begin
  trVerts = *trailsEnt[i].vertices
  x = trVerts[0,*].reform()
  y = trVerts[1,*].reform()
```

```
void = polyline( x, y, /data)
endfor
```

And...

% POLYLINE: Subscripts are not allowed with variable attributes.

Well, that's unfortunate. I'm beginning to suspect a bug. Or maybe an unintended consequence. Has anyone dealt with this before? Is there something I'm missing?

In the meantime, I'm working around the error by using POLYGON() to, in effect, draw each line twice:

```
trailsShape = idlFFShape(trailsShapeFile)
trailsShape.getProperty, n_ent = nEnt
trailsEnt = trailsShape.getEntity(/all)

for i=0, nEnt - 1 do begin
  trVerts = *trailsEnt[i].vertices
  x = trVerts[0,*].reform()
  y = trVerts[1,*].reform()
  void = polygon( [x, reverse(x)], [y, reverse(y)], /data)
endfor
```

And finally

```
IDL> !version
{
  "ARCH": "x86_64",
  "OS": "darwin",
  "OS_FAMILY": "unix",
  "OS_NAME": "Mac OS X",
  "RELEASE": "8.5",
  "BUILD_DATE": "Jul 7 2015",
  "MEMORY_BITS": 64,
  "FILE_OFFSET_BITS": 64
}
```

P.S. I'm having difficulties connecting (i.e., I can't connect) to Harris' website to submit a bug report.

-Jeff