
Subject: interpolate 3D matrix

Posted by [g.nacarts](#) on Mon, 02 Mar 2015 14:04:36 GMT

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Hi

I have two 3D arrays Ax and Ay with the following dimensions[100,4,4]=[time,x,y].

I wanted to interpolate my matrices Ax and Ay and make them to have dimensions of [100,8,8]. A part of my code is shown below:

```
size = 8
```

```
Ax_2D_INT = fltarr(100,size,size)
```

```
Ay_2D_INT = fltarr(100,size,size)
```

```
for i=0, 99 do begin
```

```
  Ax_2D = REFORM(Ax[i,*,*]) ;change 3D to 2D
```

```
  Ay_2D = REFORM(Ay[i,*,*])
```

```
  dimensions_I_need = size(Dindgen(size,size),/Dimensions)
```

```
  dimensions_I_have = size(Ax_2D,/Dimensions)
```

```
  X = cgScaleVector(Dindgen(dimensions_I_need[0]), 0, dimensions_I_have[0]-1)
```

```
  Y = cgScaleVector(Dindgen(dimensions_I_need[1]), 0, dimensions_I_have[1]-1)
```

```
  Ax_2D_INT = INTERPOLATE(Ax_2D,X, Y, /GRID)
```

```
  Ay_2D_INT = INTERPOLATE(Ay_2D,X, Y, /GRID)
```

```
endfor
```

I got the following error but I couldn't figure out why.

Attempt to subscript DIMENSIONS_I_HAVE with <INT (1)> is out of range.
