
Subject: Re: texture_coord

Posted by [Mark Hadfield](#) on Sun, 04 Nov 2001 21:23:40 GMT

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From: "Karl Schultz" <kschultz@researchsystems.com>

>>> Mark Hadfield (m.hadfield@niwa.cri.nz) writes:

>>>> Your test image ('rose.jpg') is 227 x 149 pixels.

>>>> Texture-map image dimensions are supposed to be a

>>>> power of 2 (or so I was informed some time ago

>>>> when I complained to RSI about misalignment problems).

> IDL will scale it if you don't. But that scaling may not have been

> what you wanted, and may have caused the misalignment problems?

Yes. I realise now this has nothing to do with the interesting effects encountered by David. But IDL's automatic re-sizing of images when it needs to use them as a texture map is unsatisfactory, in my opinion. Below is a test program to illustrate this. It creates & displays an image on its own and then as a texture-map. If it is run with argument "num" set to any number that is not a power of 2 the texture-mapped image is shifted up & to the right.

Actually, I've found IDL's image-oriented mathematical operations (interpolation, ROIs) often have pretty dodgy geometry when used with a small number of pixels.

Mark Hadfield

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National Institute for Water and Atmospheric Research

```
pro mgh_test_image2, NUM=num
```

```
  compile_opt IDL2
```

```
  if n_elements(num) eq 0 then num = 16
```

```
  if n_elements(option) eq 0 then option = 0
```

```
  ; Create a symmetrical 2D array
```

```
  thedata = bytarr(num,num)
```

```
  thedata[0:num-2,0:num-2] = bytscl(dist(num-1))
```

```
  thedata[num-1,*] = thedata[num-2,*]
```

```
  thedata[* ,num-1] = thedata[* ,num-2]
```

```
  ; Load the data into an IDLgrImage
```

```
  theimage = obj_new('IDLgrImage', thedata, LOCATION=[0,0] $
```

```
, DIMENSIONS=[1,1])
```

```
; Display the image alone
```

```
xobjview, theimage
```

```
; Display the image mapped onto an IDLgrPolygon
```

```
xobjview, obj_new('IDLgrPolygon', [0,1,1,0], [0,0,1,1] $  
    , COLOR=[255,255,255], TEXTURE_MAP=theimage $  
    , TEXTURE_COORD=[[0,0],[1,0],[1,1],[0,1]])
```

```
end
```

```
--
```

```
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