
Subject: IDLgrWindow, IDLgrVolume and alpha channel

Posted by [s\[1\]](#) on Fri, 24 Jan 2003 12:37:28 GMT

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Hi all,

I am rendering an IDLgrVolume into a IDLgrWindow. When I get the image data from the Window, the image has only 3 channels. How can I get the alpha channel of this image? The alpha channel information surely must be somewhere, because volume rendering needs it.

I include a small test program that generates a volume, renders it into a window and gets the buffer.

Does anybody have an idea how to get the alpha channel? Are there any settings I forgot?

Thanks for all tips,

Sebastian

```
FUNCTION CREATE_SIMPLE_VOLUME
```

```
;; create a simple volume containing one big red object and two small  
cubes
```

```
  voldim = 128
```

```
  vol = OBJ_NEW('IDLgrVolume')
```

```
;; create a volume data array of size dim^3
```

```
  volData = BYTARR(voldim,voldim,voldim)
```

```
  FOR i=0,(voldim-1) DO volData[* ,i,0:i] = 64
```

```
  volData[15:45, 15:45, 65:95] = 128 ;; small cube #1
```

```
  volData[85:115, 85:115, 65:95] = 255 ;; small cube #2
```

```
;; set opacity for vol
```

```
  opac = BYTARR(256)
```

```
  opac[0:127] = BINDGEN(128)/8
```

```
  opac[255] = 120
```

```
  opac[128] = 255
```

```
;; set colors
```

```
  rgb = bytarr(256, 3)
```

```
  rgb[0:127,0] = 255      ; main cube is red
```

```
  rgb[128, *] = [0, 255, 0] ; small green cube
```

```
  rgb[255, *] = [0, 0, 255] ; small blue cube
```

```
  vol->SETPROPERTY, data0=volData, RGB_TABLE0=rgb, OPACITY_TABLE0=opac, $  
    ZBUFFER=1, ZERO_OPACITY_SKIP=1
```

```
;; center volume at 0,0,0 and fit it into a unit cube
```

```
cc = [-0.5, 1.0/float(voldim)]
vol->SETPROPERTY, XCOORD_CONV=cc, YCOORD_CONV=cc, ZCOORD_CONV=cc
RETURN, vol
END ;; of: CREATE_SIMPLE_VOLUME

PRO CHECK_VOLUME_TRANSPARENCY
;; create a simple volume
vol = CREATE_SIMPLE_VOLUME()

;; create the view for the volume
volView = OBJ_NEW('IDLgrView', VIEWPLANE_RECT=[-1,-1,2,2], $
    ZCLIP=[2.0, -2.0], COLOR=[150,150,150])
volModel = OBJ_NEW('IDLgrModel')
volModel->ADD, vol
volView->ADD, volModel

;; create the window and draw
volWin = OBJ_NEW('IDLgrWindow', RETAIN=2, DIMENSIONS=[300,300])
volWin->DRAW, volView

;; get the rendered image and check for alpha
volWin->GETPROPERTY, IMAGE_DATA=image
help, image
END
```
