

---

Subject: Re: repeated use of TVRD() gives different results

Posted by [Burch](#) on Tue, 11 Oct 2016 19:55:28 GMT

[View Forum Message](#) <> [Reply to Message](#)

---

Hmmm, it seems to depend on the type of backing store. On my El Capitan Mac Pro it works fine when set to Pixmap but fails for the others. It will take someone more knowledgeable than me to explain why. Just out of curiosity, is the default backing store different between your Linux and Mac? Or does it work correctly regardless of the backing store setting on the Linux computer?

'IDL\_GR\_X\_RETAIN' set to 0 (None):

```
IDL> window,0,xsize = 640,ysize=512
```

```
IDL> for i=0,19 do print,tvrd(635,507,1,1,/true)
```

```
0 0 0
```

```
0 0 32
```

```
110 117 97
```

```
110 117 97
```

```
110 117 97
```

```
0 0 2
```

```
0 0 0
```

```
0 0 32
```

```
0 0 0
```

```
0 0 0
```

```
0 0 0
```

```
120 113 81
```

```
0 0 0
```

```
0 48 58
```

```
0 0 0
```

```
0 0 32
```

```
0 0 0
```

```
0 0 0
```

```
0 0 32
```

```
0 0 0
```

```
IDL> help, /device
```

Available Graphics Devices: CGM HP LJ NULL PCL PRINTER PS REGIS TEK X Z

Current graphics device: X

Server: X11.0, The X.Org Foundation, Release 11604000

Display Depth, Size: 24 bits, (1920,1080)

Visual Class: TrueColor (4)

Bits Per RGB: 8 (8/8/8)

Physical Color Map Entries (Emulated / Actual): 256 / 256

Colormap: Shared, 16777216 colors. Translation table: Bypassed

Graphics pixels: Decomposed, Dither Method: Ordered

Write Mask: 16777215 (decimal) ffffff (hex)

Graphics Function: 3 (copy)

Current Font: <default>, Current TrueType Font: <default>

Default Backing Store: None.

Window Status: -----

id typ( x, y, backing store) id typ( x, y, backing store)

0: Win( 640, 512,        None)

'IDL\_GR\_X\_RETAIN' set to 1 (Server, System):

IDL> window,0,xsize = 640,ysize=512

IDL> for i=0,19 do print,tvrd(635,507,1,1,/true)

0 0 0

0 0 0

0 0 0

0 0 0

0 0 0

0 0 0

0 0 0

0 0 0

0 0 0

110 117 97

0 0 0

0 0 0

0 0 32

0 0 0

110 117 97

0 0 0

0 0 0

0 0 32

0 0 32

0 0 32

IDL> help, /device

Available Graphics Devices: CGM HP LJ NULL PCL PRINTER PS REGIS TEK X Z

Current graphics device: X

Server: X11.0, The X.Org Foundation, Release 11604000

Display Depth, Size: 24 bits, (1920,1080)

Visual Class: TrueColor (4)

Bits Per RGB: 8 (8/8/8)

Physical Color Map Entries (Emulated / Actual): 256 / 256

Colormap: Shared, 16777216 colors. Translation table: Bypassed

Graphics pixels: Decomposed, Dither Method: Ordered

Write Mask: 16777215 (decimal) ffffff (hex)

Graphics Function: 3 (copy)

Current Font: <default>, Current TrueType Font: <default>

Default Backing Store: Req from Server.

Window Status: -----

id typ( x, y, backing store) id typ( x, y, backing store)

0: Win( 640, 512, Req from Server)

'IDL\_GR\_X\_RETAIN' set to 2 (Pixmap):

IDL> window,0,xsize = 640,ysize=512

IDL> for i=0,19 do print,tvrd(635,507,1,1,/true)

```
0 0 0
0 0 0
0 0 0
0 0 0
0 0 0
0 0 0
0 0 0
0 0 0
0 0 0
0 0 0
0 0 0
0 0 0
0 0 0
0 0 0
0 0 0
0 0 0
0 0 0
0 0 0
0 0 0
0 0 0
```

IDL> help, /device

Available Graphics Devices: CGM HP LJ NULL PCL PRINTER PS REGIS TEK X Z

Current graphics device: X

Server: X11.0, The X.Org Foundation, Release 11604000

Display Depth, Size: 24 bits, (1920,1080)

Visual Class: TrueColor (4)

Bits Per RGB: 8 (8/8/8)

Physical Color Map Entries (Emulated / Actual): 256 / 256

Colormap: Shared, 16777216 colors. Translation table: Bypassed

Graphics pixels: Decomposed, Dither Method: Ordered

Write Mask: 16777215 (decimal) fffff (hex)

Graphics Function: 3 (copy)

Current Font: <default>, Current TrueType Font: <default>

Default Backing Store: Pixmap.

Window Status: -----

id typ( x, y, backing store) id typ( x, y, backing store)

0: Win( 640, 512, Pixmap)

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
}
```

-Jeff

---