

---

Subject: Re: TVRD() with 1024 x 1024 window: IDL or MacX 1.5 problem?  
Posted by [David S. Foster/Admin](#) on Fri, 19 Jan 1996 08:00:00 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

joseph.b.gurman@gsfc.nasa.gov (Joseph B. Gurman) wrote:

>  
> I'm using IDL 4.0.1a on a DEC Alpha running OpenVMS, and using a  
> PowerMac 9500/132 with a PCI display card at 1200 x 1600 resolution to be  
> able to display 1024 x 1024 images without chopping off the top 46 rows  
> (take a look at !d.y\_vsize on a ysize = 1024 window on a 1024 x 1280  
> display). Everything works OK except for TVRD --- either with explicit  
> arguments or just as TVRD(), it messes up the read-back image  
> significantly.  
>

We have had a very similar problem with TVRD() under Solaris 2.3 .  
RSI tech support verified that there were problems with the TVRD()  
function. Specifically, our problem was due to TVRD's failure to  
read correctly from scrollable draw widgets. RSI's answer was that  
if there are regions of the canvas that are not "onscreen" (due to  
scrolling, being behind another window, or being iconified), those  
portions of the array can get screwed up.

They suggested playing around with backing store, as some systems  
will supply it and some will not. Your window is so large that  
perhaps your server is refusing. You might try forcing IDL to  
provide backing-store using the RETAIN=2 keyword when you create  
the draw widget.

I know that on our system this did not help, but in your case it  
might do the trick. We never did get TVRD() to work properly  
with scrollable draws (IDL 4.0.1), so I wrote the following  
little work-around that works fine for us. Your window is so  
large that performance might be an issue here.

```
; SAFE_TVIRD.PRO  9-25-95  
;  
;  
; This function is a safer version of IDL's TVRD() function. First,  
; there was a bug related to the reading from a scrollable draw. Also,  
; the TVRD() function uses an X routine that has problems if the  
; window is obscured or iconized. This routine uses the DEVICE, COPY=  
; command to first copy the window contents to a new window pixmap,  
; and then reads from this pixmap into the array.
```

```
FUNCTION safe_tvrd, draw_widget, xsize, ysize
```

```
on_error, 2
```

```
old_window = !d.window
window, xsize=xsize, ysize=ysize, /free, /pixmap ; Create new window

widget_control, draw_widget, get_value=window
device, copy=[0,0, xsize,ysize, 0,0, window] ; Copy into new window

image = tvrd() ; Read into array
wdelete, !d.window
if (old_window ne -1) then wset, old_window

return, image
END
```

Hope this helps. We've never had problems with TVRD() reading from a pixmap window.

David Foster  
UCSD Brain Image Analysis Lab  
foster@bial1.ucsd.edu

---