
Subject: Re: TVRD'ing under windows
Posted by [David Foster](#) on Tue, 11 May 1999 07:00:00 GMT
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Phil Aldis wrote:

>
> I'm having trouble tvrd'ing under windows, when I'm running 16 bit
> mode, and using decomposed colour. If I display an image, and then
> tvrd it back in and the tv that image, I get a garbled mess. The only
> way I can get a representation of what is on the screen is to set it
> into 24 bit mode, image=tvrd (true=1) and then tv, image, true=1.
>
> I'm not really sure what's going on. Is this anything to do with what
> David was saying a while bakc, that when you're using decomposed
> colous, it runs stuff through the table or something.
>
> Cheers,
> Phil

Hi Phil -

I ran into this problem years ago under X-Windows (Sun OS and Solaris), and at that time it was a bug, in that even with backing store provided by IDL TVRD() could produce unexpected results if the window was obscured or iconified, especially if the draw widget was scrollable.

I got around the problem by using DEVICE, COPY=[] to copy the window contents to a pixmap, and then TVRD() from that pixmap. Works quite well, at least under SunOS/Solaris.

I've attached my SAFE_TV RD.PRO and SAFE_TV RD.DOC files.

Dave

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~~~~~

; SAFE_TV RD.PRO 6-11-97 DS Foster
;
; 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 iconified. 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.
;
; Modifications
;
; 6-11-97 DSF Check validity of draw widget.

```

```

FUNCTION safe_tvrd, draw_widget, xsize, ysize

```

```

on_error, 2

```

```

if (widget_info(draw_widget, /valid_id) eq 0) then begin
  return, -1
endif else if (widget_info(draw_widget, /name) ne 'DRAW') then begin
  return, -1
endif else begin
  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
endelse

```

```

END

```

```

SAFE_TVIRD

```

This function replaces IDL's TVRD() function for reading the contents of a window into an array. The TVRD() function returns unexpected results if the window is scrollable or is obscured onscreen. This function uses IDL's DEVICE, COPY=[] function to more safely read the window contents.

Calling Sequence

```

Array = SAFE_TVIRD(Draw_widget, Xsize, Ysize)

```

Arguments

```

Draw_widget

```

The widget id of the draw widget which you will be reading into the array. Note that this is NOT the window id!

Xsize, Ysize

The dimensions of the window in the draw widget.

Outputs

Array

Returns the image read from the draw widget. Returns -1 if the Draw_widget is not a valid draw widget ID.

File Attachments

- 1) [safe_tvrd.pro](#), downloaded 72 times
 - 2) [safe_tvrd.doc](#), downloaded 79 times
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