Subject: Re: undocumented IDL built-in TVRDC
Posted by gurman on Fri, 10 Jun 1994 02:16:30 GMT

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In article <1994Jun9.182922.21061@noao.edu>,
eharold@corona.sunspot.noao.edu (Elliotte Harold) wrote:

>   I recently ran across what appears to be an undocumented built-in
> procedure in IDL 3.5 called TVRDC. I can't find a reference to it anywhere,
> but it seems to return the point in the IDL window which the user
> clicked. It's syntax is
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> tvrdc,x,y,/dev
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> After calling this x and y now contain the x and y coordinates where the
> mouse was clicked. Here at NSO we found it useful for a program that
> tracks Jupiter's moons between frames. In the picture of Jupiter taken
> with the Vacuum Tower Telescope the moons are fairly small, pretty much
> single pixel objects so to locate them we just move the mouse and click
> on the moon. Has anyone else used this? More to the point is there some
> reason it's undocumented? Or is it documented somewhere that I just haven't
> been able to find? If you're wondering how I found out about it, I saw it
> used in the TVRD userlib procedure.

    TVRDC certainly used to be documented (at least way back in the IDL < 2
days), but it may be (rank speculation here) that not every platform that
now supports IDL also supports cursor readback.

    It's:

    TVRDC, x, y [, wait_for_mouse_button]

where wait_for_mouse_button non-zero (default) means: wait 'til mouse is
clicked to read back x and y. If wait_for_mouse_button is 0, it executes
immediately.

Keywords can be one of (at least): /device, /normalized, and /data.

    Anybody from RSI care to indicate why TVRDC is undocumented? Or are you
all too busy preparing for the release of IDL 3.6? Or selling ENVI
licenses?

    Joe Gurman

--
Joseph B. Gurman / NASA Goddard Space Flight Center/ Solar Data Analysis
Center / Code 682 / Greenbelt MD 20771 USA / gurman@uvsp.gsfc.nasa.gov
| Federal employees are still prohibited from holding opinions while at |

| work. Any opinions expressed herein must therefore be someone else's. |

Subject: Re: undocumented IDL built-in TVRDC
Posted by landsman on Fri, 10 Jun 1994 05:21:00 GMT
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> In article <1994Jun9.182922.21061@noao.edu>,
> eharold@corona.sunspot.noao.edu (Elliotte Harold) wrote:
>
>>   I recently ran across what appears to be an undocumented built-in
>>   procedure in IDL 3.5 called TVRDC. I can't find a reference to it anywhere,

   TVRDC is a synonym for the (documented) CURSOR command.   Its origin goes
back to 1980's Version 1 IDL when the typical image processing environment
was a television display monitor controlled by a Tektronics or VT100 terminal.
Version 1 IDL then had a CURSOR command for reading the cursor off of a plot
on the Tektronics screen, and a TVRDC command to read the cursor on the
television display.   In a workstation environment each window can be used
for image display or plotting, and the distinction between CURSOR and TVRDC
became unnecessary.   CURSOR was chosen as the command for newer versions
of IDL, however TVRDC remained available as an undocumentd synonym.   You
will find that TVRDC works exactly as documented under CURSOR.

--Wayne Landsman   landsman@stars.gsfc.nasa.gov

Subject: Re: undocumented IDL built-in TVRDC
Posted by thompson on Fri, 10 Jun 1994 11:33:00 GMT
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gurman@uvsp.gsfc.nasa.gov (Joseph B. Gurman) writes:

> In article <1994Jun9.182922.21061@noao.edu>,
> eharold@corona.sunspot.noao.edu (Elliotte Harold) wrote:

>>   I recently ran across what appears to be an undocumented built-in
>>   procedure in IDL 3.5 called TVRDC. I can't find a reference to it anywhere,
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> days), but it may be (rank speculation here) that not every platform that
> now supports IDL also supports cursor readback.

>   It's:

>   TVRDC, x, y [, wait_for_mouse_button]

> where wait_for_mouse_button non-zero (default) means: wait 'til mouse is
> clicked to read back x and y. If wait_for_mouse_button is 0, it executes
> immediately.

> Keywords can be one of (at least): /device, /normalized, and /data.

>   Anybody from RSI care to indicate why TVRDC is undocumented? Or are you
> all too busy preparing for the release of IDL 3.6? Or selling ENVI
> licenses?

I'll haphazard a guess that it's because CURSOR now does all the things that
TVRDC used to do, including taking the optional WAIT parameter. CURSOR
certainly is documented. Back in pre-version 2 days, one used TVRDC for device
coordinates and CURSOR for data coordinates, but now CURSOR can work with both
data and device coordinates, as well as normalized coordinates, by using it
with the right keyword. I wouldn't be surprised if these days TVRDC is just a
synonym for CURSOR.

By the way, this is what I have for the possible values of the optional WAIT
parameter:

```
 Value  Corresponding Keyword  Action
 ------------------------------------------------
 0 NOWAIT  Return immediately
 1 WAIT  Return if button is down
 2 CHANGE  Return if a button is
    pressed, released, or the
    pointer is moved.
 3 DOWN  Return on button down
 4 UP  Return on button up
```

With the default value being 1.

Bill Thompson

Subject: Re: undocumented IDL built-in TVRDC
Posted by jacobsen on Fri, 10 Jun 1994 21:07:50 GMT
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Does not CURSOR provide a way to get mouse coordinates? It
certainly works on IDL for VAX, RS/6000, and Windows.
--
Chris Jacobsen, Asst. Prof., Department of Physics, SUNY at Stony Brook
Phone (516) 632-8093, FAX -8101   Bitnet: cjacobsen@sbccmail
jacobsen@xray1.physics.sunysb.edu Stony Brook ALL-IN_ONE: CJACOBSEN

Subject: Re: undocumented IDL built-in TVRDC
Posted by velt on Mon, 13 Jun 1994 19:51:39 GMT
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In article 21061@noao.edu, eharold@corona.sunspot.noao.edu (Elliotte Harold) writes:
> I recently ran across what appears to be an undocumented built-in
> procedure in IDL 3.5 called TVRDC. I can't find a reference to it anywhere,
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> been able to find? If you're wondering how I found out about it, I saw it
> used in the TVRD userlib procedure.
>
> --
>
> Elliotte Rusty Harold   National Solar Observatory
> eharold@sunspot.noao.edu   Sunspot NM 88349

It appears that tvrdc has similar functionality as cursor. When I first read
your message it appeared that you could retrieve the *last* cursor position
where the mouse was clicked, which would have great advantages over the

---

current routines, that read the cursor postion *after* the routine is called.

Tvrdc is a fossil from IDL version 1. The IDL users guide VS 2.1 (1991) describes the differences between cursor and tvrdc.

Robert Velthuizen
velt@rad.usf.edu