
Subject: Re: Help needed in using object graphics
Posted by [Dick Jackson](#) on Wed, 15 Jun 2016 21:47:43 GMT
[View Forum Message](#) <> [Reply to Message](#)

On Tuesday, 14 June 2016 11:24:16 UTC-7, superchromix wrote:

> My guess would be that the objects you are creating exist while your procedure is running, and then when the procedure ends and they are destroyed by automatic garbage collection. If you run the same commands at the command prompt, the plot does not disappear..

>
> Mark

Good thought, Mark... I bet you're right.

The problem happens for me on Windows 10 as well. Trying to find a solution (see notes in code)

PRO PLOTTEST

x = FINDGEN(20)-10

y = SIN(x)*10

```
base = WIDGET_BASE(/ROW, TITLE= 'TEST', XSIZE=800, YSIZE=600)
draw1 = WIDGET_WINDOW(base, XSIZE=800, YSIZE=600, GRAPHICS_LEVEL=2)
;; Note: GRAPHICS_LEVEL is not documented for WIDGET_WINDOW
; draw1 = WIDGET_DRAW(base, XSIZE=800, YSIZE=600, GRAPHICS_LEVEL=2)
WIDGET_CONTROL, base, /REALIZE
WIDGET_CONTROL, draw1, GET_VALUE=owindow1
view1 = OBJ_NEW('IDLgrView', VIEWPLANE_RECT=[-15,-15,30,30])
model1 = OBJ_NEW('IDLgrModel')
plot1 = OBJ_NEW('IDLgrPlot', x, y, COLOR=[255, 0, 0])
model1->ADD, plot1
view1->ADD, model1
owindow1->DRAW, view1
WAIT, 1
```

; The problem is that the IDLgrPlot object disappears when this routine
; returns. Possible cause: garbage collection on objects that are no longer
; referenced when this routine returns.

; Try to make a persistent reference to the objects. This didn't work
; when WIDGET_WINDOW was used:

```
WIDGET_CONTROL, base, SET_UVALUE={plot1:plot1, $
                           model1:model1, $
                           view1:view1, $
                           owindow1:owindow1, $
                           draw1:draw1, $
                           base:base}
```

HELP, base

;DEFSYSV, '!PLOTTEST_PLOT1', plot1

```
END
```

But look at this, all the objects are indeed referenced. I have it printing the Widget ID of the base:

```
IDL> plottest
BASE      LONG    =      25
IDL> widget_control,25, get_uvalue=uvalue
IDL> uvalue
{
  "PLOT1": <ObjHeapVar18227(IDLGRPLOT)>,
  "MODEL1": <ObjHeapVar18226(IDLGRMODEL)>,
  "VIEW1": <ObjHeapVar18224(IDLGRVIEW)>,
  "OWINDOW1": <ObjHeapVar16618(GRAPHICSWIN)>,
  "DRAW1": 26,
  "BASE": 25
}
IDL> print,obj_valid([uvalue.plot1,uvalue.model1,uvalue.view1,uvalue.owindow1])
1 1 1 1
```

Surprise! The objects are still valid! (not *destroyed* by GC at least) Looking more:

```
IDL> foreach obj, [uvalue.plot1,uvalue.model1,uvalue.view1,uvalue.owindow1] do print,obj
<ObjHeapVar18227(IDLGRPLOT)>
<ObjHeapVar18226(IDLGRMODEL)>
<ObjHeapVar18224(IDLGRVIEW)>
GRAPHICSWIN <16618>
BACKGROUND_COLOR      = 255 255 255
DIMENSIONS           = 800.000   600.000
EVENT_HANDLER        = <NullObject>
KEYBOARD_HANDLER     =
MOUSE_DOWN_HANDLER   =
MOUSE_MOTION_HANDLER =
MOUSE_UP_HANDLER     =
MOUSE_WHEEL_HANDLER =
NAME                 = 'IDL'
RESOLUTION          = 0.035277778  0.035277778
SELECTION_CHANGE_HANDLER =
TITLE               = <NullObject>
WINDOW_TITLE         = "
```

So, are they just hidden?

```
IDL> foreach obj, [uvalue.plot1,uvalue.model1,uvalue.view1,uvalue.owindow1] do begin &
```

```

obj.getproperty,hide=hide & print,hide & endforeach
  0
  0
  0
% GRAPHICSWIN: Unknown property: HIDE
% Execution halted at: $MAIN$

```

Nope... what else could be going on? Let's look at the easily visible properties:

```

IDL> foreach obj, [uvalue.plot1,uvalue.model1,uvalue.view1,uvalue.owindow1] do begin &
obj.getproperty,all=all & help,/str,all & endforeach
** Structure <aaf25b0>, 31 tags, length=224, data length=217, refs=1:
ALPHA_CHANNEL FLOAT      1.00000
ANTIALIAS    LONG        0
CLIP_PLANES  LONG        -1
COLOR        BYTE   Array[3]
COMPONENT_VERSION
  INT        851
DEPTH_TEST_DISABLE
  LONG        0
DEPTH_TEST_FUNCTION
  LONG        0
DEPTH_WRITE_DISABLE
  LONG        0
DOUBLE      LONG        0
HIDE        LONG        0
HISTOGRAM   LONG        0
LINESTYLE   LONG        0
MAX_VALUE   DOUBLE      NaN
MIN_VALUE   DOUBLE      NaN
NAME        STRING      "
NSUM        LONG        1
PALETTE     OBJREF     <NullObject>
PARENT      OBJREF     <ObjHeapVar18226(IDLGRMODEL)>
POLAR       LONG        0
SHADER      OBJREF     <NullObject>
SYMBOL      OBJREF     <NullObject>
THICK       FLOAT      1.00000
USE_ZVALUE  LONG        0
VERT_COLORS LONG        -1
XCOORD_CONV DOUBLE  Array[2]
XRANGE      DOUBLE  Array[2]
YCOORD_CONV DOUBLE  Array[2]
YRANGE      DOUBLE  Array[2]
ZCOORD_CONV DOUBLE  Array[2]
ZRANGE      DOUBLE  Array[2]
ZVALUE      DOUBLE      0.00000000

```

```

** Structure <b83af20>, 13 tags, length=192, data length=186, refs=1:
ACTIVE_POSITION LONG          0
CLIP_PLANES    LONG         -1
COMPONENT_VERSION
    INT      851
DEPTH_TEST_DISABLE
    LONG      0
DEPTH_TEST_FUNCTION
    LONG      0
DEPTH_WRITE_DISABLE
    LONG      0
HIDE        LONG      0
LIGHTING     LONG      2
NAME        STRING   ""
PARENT       OBJREF  <ObjHeapVar18224(IDLGRVIEW)>
RENDER_METHOD LONG      0
SELECT_TARGET LONG      0
TRANSFORM    DOUBLE  Array[4, 4]
** Structure <b6284d0>, 17 tags, length=144, data length=137, refs=1:
CENTER        LONG      -1
COLOR         BYTE   Array[3]
COMPONENT_VERSION
    INT      851
DEPTH_CUE     FLOAT  Array[2]
DIMENSIONS    FLOAT  Array[2]
DOUBLE        LONG      0
EYE           DOUBLE  4.0000000
HIDE          LONG      0
LOCATION      FLOAT  Array[2]
NAME          STRING   ""
OBlique        FLOAT  Array[2]
PARENT        OBJREF  <NullObject>
PROJECTION    LONG      1
TRANSPARENT   LONG      0
UNITS          LONG      0
VIEWPLANE_RECT DOUBLE  Array[4]
ZCLIP          DOUBLE  Array[2]
% GRAPHICSWIN: Unknown property: ALL
% Execution halted at: $MAIN$
```

Well, I can't see anything in there. I notice if I double-click in the window, I get the property sheet for the view, and I can even change the background colour! But I can't seem to make the model or plot appear.

This seems like a bug to me, and I'd love to hear some feedback from Exelis/Harris. I discovered that the problem does not occur if we use WIDGET_DRAW instead of WIDGET_WINDOW, but that may not be an acceptable workaround.

Cheers,
-Dick

Dick Jackson Software Consulting Inc.
Victoria, BC, Canada --- <http://www.d-jackson.com>
