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

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