Subject: function graphics curiosity? bug? Posted by Jonathan on Tue, 12 Dec 2017 01:44:51 GMT

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Have a look at the following code:

```
 \begin{array}{l} x = findgen(128) \\ y = 1.0 + 0.1*randomn(seed,128) \\ y2 = 1.0 + 0.2 \ randomn(seed,128) \\ b = widget\_base(\ xsize=480,\ xoffset=940,\ ysize=360,\ yoffset=0\ ) \\ w = widget\_window(\ b,\ x\_scroll\_size=470,\ y\_scroll\_size=350\ ) \\ widget\_control,\ b,\ /realize \\ widget\_control,\ w,\ get\_value=d \\ p = plot(\ x,\ y,\ current=d,\ xstyle=2,\ ystyle=2\ ) \\ p2 = plot(\ x,\ y2,\ color='red',\ linestyle='',\ symbol='+',\ current=d,\ /overplot\ ) \\ d.uvalue = \{\ x:x,\ y:y,\ y2:y2,\ b:b,\ p:p,\ p2:p2\ \} \\ end \end{array}
```

This creates a widget window, w, under a base, b, and then places two overlapping plots within that window. Now, if the data changes for the second plot, I would like to do the following steps:

```
y3 = 1.0 + 0.2 \text{ randomn(seed,128)}; new data 
p2.delete ; erases the p2 data in the plot 
p2 = plot( x, y3, color='red, , linestyle='', symbol='+', current=d, /overplot ) 
d.uvalue.p2 = p2 ; store the plot identifier in the window's uvalue 
structure
```

The last line generates the following error message:

% Attempt to store into an expression: Structure reference.

% Execution halted at: \$MAIN\$

What has happened is that IDL forgot the type of d.uvalue.p2, so when I try to put a new (identical) p2 there, it rejects the attempt.

This turns out to be a huge hassle for me.

My solution is a kludge, which is to create a new structure for d.uvalue and replace the whole thing, rather than just one element.

Is there a better, simpler way?