
Subject: Pointers to arrays in widget programs (PV-Wave and IDL)

Posted by [rep2857](#) on Wed, 07 Dec 1994 20:35:49 GMT

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Hi all -

I've been using IDL for a couple years and just switched to PV-Wave. One thing that I'd like to figure out how to do is use the Userdata option in Wave to pass a pointer to an array which can be resized. Here's what I mean in terms of IDL widget syntax, and what I thought would work in WaveWidget syntax. I haven't been able to get this to work correctly with WaveWidgets, though. The following were keyed in on the fly and should be considered a concept, not actual running code.

IDL Version 3.6, Sun SS-10, SunOS 4.1.3.

Wave CL Version 4.2, Sun SS-10, SunOS 4.1.3.

IDL:

```
pro test
```

```
ptr = widget_base() ; unrealized base for use with UValue
```

```
fptr = widget_base(Group=ptr) ; unrealized base for use with UValue
```

```
fdata = 0 ; will eventually hold array of varying sizes
```

```
info = {$
```

```
  data:0L, $
```

```
  fptr:fptr}
```

```
; commands and widget layouts deleted
```

```
Widget_Control, fptr, Set_UValue=fdata
```

```
Widget_Control, ptr, Set_UValue=info
```

```
end
```

```
pro test_event, event
```

```
Widget_Control, event.top, Get_UValue=ptr
```

```
Widget_Control, ptr, Get_UValue=info, /No_Copy
```

```
Widget_Control, info.fptr, Get_UValue=fdata, /No_Copy
```

```
; commands deleted
```

```
; declare xsize and ysize based on some kind of data
```

```
; could be different size each time
```

```
fdata = bytarr(xsize, ysize)
```

```
Widget_Control, info.fptr, Set_UValue=fdata, /No_Copy
```

```
Widget_Control, ptr, Set_UValue=info, /No_Copy
```

```
end
```

Wave:

```
pro test
```

```
splash = WwInit('qmr', 'Qmr', bboard, /Board)
```

```
base = WwMainWindow(splash, layout, /Form)
```

```
fptr = WwMainWindow(layout)
```

```
abutton = WwButtonBox(layout, 'Button Label', 'test_event')
```

```

; commands and widget layouts deleted
fdata = 0
info = {, $
  data:0L, $
  abutton:abutton, $
  base:base, $
  fptr:fptr}
; if I remember correctly this next line will fail during compile
status = WwSetValue(info.fptr, Userdata=fdata)
status = WwSetValue(base, Userdata=info)
end

pro test_event, wid, data
info = WwGetValue(wid, /Userdata)
fdata = WwGetValue(info.fptr, /Userdata)
; unfortunately base and fdata are identical after this
; I would like fdata to be whatever I had stored in the userdata
; for base.fptr on a previous instance, typically an image array
fdata = bytarr(xsize, ysize)
status = WwSetValue(info.fptr, Userdata=fdata)
end

```

I was trying to put an application together for a demo in a very short time, and will happily concede to making a stupid mistake if someone can show me how to do this. In the interim, I've coded the demo with a short common block, which I would rather avoid. I can provide more thorough code examples through email if necessary. I've been able to assign values and structures using the above type of declarations, but I can't change the dimensions without giving the program fits.

Thanks,

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