
Subject: Re: pulldown menu with multiple selections - Yes we can!

Posted by [davidf](#) on Fri, 29 Oct 1999 07:00:00 GMT

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Pavel Romashkin (promashkin@cmdl.noaa.gov) writes:

> Since I feel I stepped over the forbidden line here, the only way I can
> save the situation is to buy David a beer when I am in Ft. Collins :-)

Oh, well, alright then. We'll tip back a few Fat Tires,
the Fort's Finest. :-)

Cheers,

David

--

David Fanning, Ph.D.

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Coyote's Guide to IDL Programming: <http://www.dfanning.com/>

Toll-Free IDL Book Orders: 1-888-461-0155

Subject: Re: pulldown menu with multiple selections - Yes we can!

Posted by [Pavel Romashkin](#) on Fri, 29 Oct 1999 07:00:00 GMT

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Hi David,

Why in the world did you think I meant YOU when I said "old-fashioned"?
Do you think I'd dare putting my humble IDLing next to yours? I am an
amateur, and I admit to that readily :-)

Lets just say that I feel "old-fashioned" in that I don't like
deciphering machine-generated code trying to figure out what did it do
and why. It takes me less time to write it all myself knowing already
what it is going to be like. And I not only look for my glasses in the
meantime but have to clean them to see the code, too :-)

Since I feel I stepped over the forbidden line here, the only way I can
save the situation is to buy David a beer when I am in Ft. Collins :-)

Cheers,

Pavel

> P.S. I would have hardly thought that anyone who spends
> as much time as I do advocating object-oriented programming
> techniques would be considered "old-fashioned", but there
> you have it. The world has probably moved on to "telepathically

> inspired coding" during the time I was still looking for
> my damn glasses. Old fashioned, indeed. :-(

Subject: Re: pulldown menu with multiple selections - Yes we can!
Posted by [davidf](#) on Fri, 29 Oct 1999 07:00:00 GMT
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Pavel Romashkin (promashkin@cmdl.noaa.gov) writes:

> I am afraid I am admitting that I belong to the "old-fashioned"
> category of IDLers

Now hold on there. Them's fightin' words where I come from. :-)

Cheers,

David

P.S. I would have hardly thought that anyone who spends as much time as I do advocating object-oriented programming techniques would be considered "old-fashioned", but there you have it. The world has probably moved on to "telepathically inspired coding" during the time I was still looking for my damn glasses. Old fashioned, indeed. :-(

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Subject: Re: pulldown menu with multiple selections - Yes we can!
Posted by [Pavel Romashkin](#) on Fri, 29 Oct 1999 07:00:00 GMT
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> While I'm not sure your post sheds much light on the
> original question, it does, however, nicely illustrate
> some previous points I made about the code generated
> by the Widget Builder. :-)

Oh no. Is that what it looks like? I have never used it and I am afraid now I am glad I have not. For what I am doing, I'd have WID_BASE_1023 by now probably and would never been able to figure out what is going on :-(Also, isn't explicit widget sizing considered unethical for cross-platform porting?

I discovered that half of my widgets are hiding behind the others if I use sizing that's nice on UNIX and try to run the code on a PC :- (I guess GUI-Builder is not too considerate in this respect.

I am afraid I am admitting that I belong to the "old-fashioned" category of IDLers despite the fact I started in it not so long ago. I really like to understand what is happening in my code.

Cheers,
Pavel

Subject: Re: pulldown menu with multiple selections - Yes we can!
Posted by [davidf](#) on Fri, 29 Oct 1999 07:00:00 GMT
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Michael Asten (masten@mail.earth.monash.edu.au) writes:

>> Does anybody know how to make a pulldown menu with multiple selections?
>
> I did it using the pull down menu generated by the idl5.2 GuiBuilder,
> with subsequent addition to code to extract the "multiple" selection.
> Attached is a demo example - the task is to select multiple 'loops'
> from the left column of a widget, and single 'line' and 'component'
> from 2nd and 3rd columns of the widget.

Uh, thanks for this, Michael. But I don't see a pull-down menu anywhere. I see lots of lists. :-)

While I'm not sure your post sheds much light on the original question, it does, however, nicely illustrate some previous points I made about the code generated by the Widget Builder. :-)

Cheers,

David

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Subject: Re: pulldown menu with multiple selections - Yes we can!
Posted by [Michael Asten](#) on Fri, 29 Oct 1999 07:00:00 GMT

pei zeng wrote:

> Hi, Guys
>
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>
> Thanks!
>
> pei

I did it using the pull down menu generated by the idl5.2 GuiBuilder,
with
subsequent addition to code to extract the "multiple" selection.
Attached is a demo example - the task is to select multiple 'loops'
from
the left column of a widget, and single 'line' and 'component' from 2nd
and
3rd columns of the widget.

On win95/98/NT systems, multiple menu item selection is by the windows
convention of pressing <control> rightMouseClicked to select individual
items
additively, or pressing <shift> rightMouseClicked to select all menu items
between two highlighted items. I assume Mac and Unix have mouse
conventions for equivalent processes.

I acknowledge the help of RSI Tech support in getting this multiple menu
item selection working - it is not well documented in the idl5.2 online
help.

Regards,
Michael Asten

Code follows:

```
;
;
; IDL Widget Interface Procedures. This Code is automatically
;   generated and should not be modified.
;
;
; Generated on: 12/10/98 13:43.49
;
PRO WID_BASE_0_event, anEvent
common
  select_subs, loop_index, line_index, comp_index, freq_index, gain_index

  _widID_ = anEvent.top
```


CASE anEvent.id OF

```
WIDGET_INFO(_widID_, FIND_BY_UNAME='WID_LIST_3'): BEGIN
  if TAG_NAMES(anEvent, /STRUCTURE_NAME) EQ 'WIDGET_LIST' then $
    Freq_index= anEvent.index
  END
```

```
WIDGET_INFO(_widID_, FIND_BY_UNAME='WID_LIST_4'): BEGIN
  if TAG_NAMES(anEvent, /STRUCTURE_NAME) EQ 'WIDGET_LIST' then $
    Gain_index= anEvent.index
  END
```

```
WIDGET_INFO(_widID_, FIND_BY_UNAME='WID_LIST_1'): BEGIN
  if TAG_NAMES(anEvent, /STRUCTURE_NAME) EQ 'WIDGET_LIST' then $
    Line_index= anEvent.index
  END
```

```
WIDGET_INFO(_widID_, FIND_BY_UNAME='WID_LIST_2'): BEGIN
  if TAG_NAMES(anEvent, /STRUCTURE_NAME) EQ 'WIDGET_LIST' then $
    Comp_index= anEvent.index
  END
```

```
WIDGET_INFO(_widID_, FIND_BY_UNAME='WID_LIST_0'): BEGIN
```

```
; PROCESSING OF LIST SELECTION FOR LEFT COLUMN,
;   WHERE MULTIPLE SELECTION REQUIRED
; need a second call to widget_info, to save name of wid
wid = widget_info(_widID_, FIND_BY_UNAME='WID_LIST_0')
; wid now contains the widget id of WID_LIST_0
print,'wid = ', wid
  if TAG_NAMES(anEvent, /STRUCTURE_NAME) EQ 'WIDGET_LIST' then begin
    ;now get the indices of the selected list items
    ; this is a scalar, if only 1 choice made
    ; this is an array if multiple choices selected
    loop_index=widget_info(wid,/list_select)
      ;print,'anEvent.index=',anEvent.index
      ;loop_index= anEvent.index
    print,'loop_index from multiple select=',loop_index
  endif
END
```

```
WIDGET_INFO(_widID_, FIND_BY_UNAME='WID_BUTTON_0'): BEGIN
  if TAG_NAMES(anEvent, /STRUCTURE_NAME) EQ 'WIDGET_BUTTON' then $
    widget_control,anEvent.top,/destroy
  END
ELSE:
ENDCASE
```

END

PRO WID_BASE_0, GROUP_LEADER=_VWBGroup_, _EXTRA=_VWBExtra_

,loops,lines,comps,freqs,gains

;delete this - not needed for simple demo program
;RESOLVE_ROUTINE, 'select_subset2_eventcb' ; Load event callback
routines

```
WID_BASE_0 = WIDGET_BASE( GROUP_LEADER=_VWBGroup_, $  
    UNAME='WID_BASE_0',SCR_XSIZE=491,SCR_YSIZE=175,TITLE='IDL' $  
    ,SPACE=3,XPAD=3,YPAD=3)
```

```
WID_LIST_2 = WIDGET_LIST(WID_BASE_0, UNAME='WID_LIST_2' $  
    ,XOFFSET=180,YOFFSET=43,SCR_XSIZE=57,SCR_YSIZE=78,value=comps)
```

```
WID_LIST_3 = WIDGET_LIST(WID_BASE_0, UNAME='WID_LIST_3' $  
    ,XOFFSET=254,YOFFSET=43,SCR_XSIZE=57,SCR_YSIZE=78,value=freqs)
```

```
WID_LIST_4 = WIDGET_LIST(WID_BASE_0, UNAME='WID_LIST_4' $  
    ,XOFFSET=337,YOFFSET=43,SCR_XSIZE=57,SCR_YSIZE=78,value=gains)
```

```
WID_LABEL_0 = WIDGET_LABEL(WID_BASE_0, UNAME='WID_LABEL_0' $  
    ,XOFFSET=38,YOFFSET=20,/ALIGN_LEFT,VALUE='LOOP')
```

```
WID_LABEL_4 = WIDGET_LABEL(WID_BASE_0, UNAME='WID_LABEL_4' $  
    ,XOFFSET=365,YOFFSET=20,SCR_XSIZE=28,SCR_YSIZE=18 $  
    ,/ALIGN_LEFT,VALUE='GAIN')
```

```
WID_LABEL_3 = WIDGET_LABEL(WID_BASE_0, UNAME='WID_LABEL_3' $  
    ,XOFFSET=276,YOFFSET=20,/ALIGN_LEFT,VALUE='FREQ')
```

```
WID_LABEL_1 = WIDGET_LABEL(WID_BASE_0, UNAME='WID_LABEL_1' $  
    ,XOFFSET=100,YOFFSET=20,SCR_XSIZE=62,SCR_YSIZE=18 $  
    ,/ALIGN_LEFT,VALUE='LINE/HOLE')
```

```
WID_LIST_1 = WIDGET_LIST(WID_BASE_0, UNAME='WID_LIST_1' $  
    ,XOFFSET=103,YOFFSET=43,SCR_XSIZE=57,SCR_YSIZE=78,value=lines)
```

```
WID_LABEL_2 = WIDGET_LABEL(WID_BASE_0, UNAME='WID_LABEL_2' $  
    ,XOFFSET=205,YOFFSET=20,/ALIGN_LEFT,VALUE='COMPNT')
```



```

WID_BUTTON_0 = WIDGET_BUTTON(WID_BASE_0, UNAME='WID_BUTTON_0' $
,XOFFSET=418 ,YOFFSET=43 ,/ALIGN_CENTER ,VALUE='APPLY')

WID_LIST_0 = WIDGET_LIST(WID_BASE_0, UNAME='WID_LIST_0' ,XOFFSET=18 $
,YOFFSET=44 ,SCR_XSIZE=43 ,SCR_YSIZE=78 ,/multiple,value=loops)

WIDGET_CONTROL, /REALIZE, WID_BASE_0

XMANAGER, 'WID_BASE_0', WID_BASE_0

END
;
; Empty stub procedure used for autoloading.
;
PRO select_subset2, GROUP_LEADER=_VWBGroup_, _EXTRA=_VWBExtra_
,loops,lines,comps,freqs,gains
  WID_BASE_0, GROUP_LEADER=_VWBGroup_, _EXTRA=_VWBExtra_
,loops,lines,comps,freqs,gains
END

; MAIN PROG
common
  select_subs,loop_index,line_index,comp_index,freq_index,gain_index
loops=['loop1','loop2','loop3','loop4','loop5']
lines=['line1','line2']
comps=['Z']
freqs=['P6.25']
gains=['0']
loop_index=0 & line_index=0 & comp_index=0 & freq_index=0 & gain_index=0
select_subset2 ,loops,lines,comps,freqs,gains
  print,loop_index,line_index,comp_index,freq_index,gain_index
end

```

Subject: Re: pulldown menu with multiple selections - Yes we can!
 Posted by [R.Bauer](#) on Tue, 02 Nov 1999 08:00:00 GMT
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Michael Asten wrote:

```

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>
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>>
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```



```
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> the left column of a widget, and single 'line' and 'component' from 2nd
> and
> 3rd columns of the widget.
```

Dear Michael,

this is a bit more modern code of your widget.

The arrangement of the widget was done by the GUI Builder too. An important difference to your code is

that's the ids of the widget function are organized in a structure which is the uvalue of the main base.

I am preferring pointer instead of a common block.

Unfortunately this was not the answer of the question.

Regards

R.Bauer

```
PRO list_ex_event, Event
```

```
    WIDGET_CONTROL,event.top,get_uvalue=map
```

```
    CASE event.id OF
```

```
        (*map).id_show: BEGIN
```

```
            idx=WIDGET_INFO((*map).id_list,/list_select)
```

```
            PRINT,(*map).data.list_value[idx]
```

```
        END
```

```
        (*map).id_done: WIDGET_CONTROL,event.top,/destroy
```

```
    ELSE:
```

```
    ENDCASE
```

```
END
```

```
PRO list_ex
```

```
    map=CREATE_STRUCT('id_base_0',WIDGET_BASE(SCR_XSIZE=300,SCR_YSIZE=200,$
        TITLE='list example',SPACE=3,XPAD=3,YPAD=3))
```



```

value=['alpha','beta','gamma','delta']
map=CREATE_STRUCT(map,'id_list',WIDGET_LIST(map.id_base_0, Uvalue='LIST'
,$
  XOFFSET=9 ,YOFFSET=10 ,SCR_XSIZE=118 ,SCR_YSIZE=138 ,XSIZE=11
,YSIZE=2,$
  value=value,/multiple))

map=CREATE_STRUCT(map,'id_show', WIDGET_BUTTON(map.id_base_0,
Uvalue='SHOW', $
  XOFFSET=151 ,YOFFSET=18 ,/ALIGN_CENTER ,VALUE='SHOW'))

map=CREATE_STRUCT(map,'id_done', WIDGET_BUTTON(map.id_base_0,
Uvalue='DONE', $
  XOFFSET=151 ,YOFFSET=48 ,/ALIGN_CENTER ,VALUE='DONE'))

map=CREATE_STRUCT(map,'Data',CREATE_STRUCT('list_value',valu e))
map=PTR_NEW(TEMPORARY(map))

WIDGET_CONTROL, /REALIZE, (*map).id_BASE_0,set_uvalue=map

XMANAGER, 'list_ex', (*map).id_BASE_0
ptr_free,map

END

```

Subject: Re: pulldown menu with multiple selections - Yes we can!
 Posted by [Michael Asten](#) on Tue, 02 Nov 1999 08:00:00 GMT
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Pavel Romashkin wrote:

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> Oh no. Is that what it looks like? I have never used it and I am afraid now I
> am glad I have not. For what I am doing, I'd have WID_BASE_1023 by now
> probably and would never been able to figure out what is going on :-(

```

Only if you choose to accept the machine-nominated name. You can nominate an alternative name while building the gui if you wish - and you make a strong case for doing so. Sorry if my micky mouse eg confused the issue.

Regards,
Michael Asten

Subject: Re: pulldown menu with multiple selections - Yes we can!
Posted by [Michael Asten](#) on Tue, 02 Nov 1999 08:00:00 GMT
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David Fanning wrote:umns of the widget.

>
> Uh, thanks for this, Michael. But I don't see a pull-down
> menu anywhere. I see lots of lists. :-)
>

Oops. Granted. Yes, I failed to point out that the solution posted is indeed a set of lists, rather than literal pull-down menus. However the lists ARE scrollable, ie a list of any length can be displayed in a box of a lesser number of rows (theoretically can do it with one row, but its asthetically easier to make selections if the list box is minimum 3 rows long). The difference in user-feel between a pulldown list and scrollable lists as described is minor, and the multiple-selection scrollable list provides a viable solution to a real problem I encountered. Its just possible it might also be a solution for other users with multiple-selection needs. It certainly does not depend on use of the GuiBuilder to implement it - but I have a kinky philosophy whereby I prefer to avoid programming in Assembly language if Fortran is available.

Regards,
Michael Asten

Subject: Re: pulldown menu with multiple selections - Yes we can!
Posted by [Michael Asten](#) on Tue, 09 Nov 1999 08:00:00 GMT
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"R.Bauer" wrote:

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> thats the ids of the widget function are organized in a structure which is
> the uvalue of the main base.
> I am preferring pointer instead of a common block.
>

> Unfortunately this was not the answer of the question.

But an illuminating example of how to improve. Thanks for the tip.

Regards,

Michael Asten
