Subject: Re: IDL Runtime

Posted by R.Bauer on Thu, 06 Dec 2001 17:49:29 GMT

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Dear Andre, dear David

I am sorry that's I have not spent time last three weeks to read more detailed this issue

Attached is a small example from our IDL widget lessons which shows a very nice functionality about starting an event while an event is already running.

You have not to wait until UP is finished, you can directly press DOWN or QUIT.

The trick for this is to call always as event_pro set by the widget definition "wid1_event".

In the cases of 'wid1_UP' and 'wid1_DOWN' always a second own event manager

"wid1_own_event" is started which did nothing else as asking for events from the buttons.

If an event by a button is returned the event procedure "wid1_event" is runnind independent from the XMANAGER.

This means the "wid1_event" runs many times started like child-processes and only

if you have used pointers you know the variables in each process and they are

the same.

If you press "Quit" all of this child-processes of "wid1_event" are stopped at once.

I have many of my widgets programmed in this way, but it is hard to reprogramm an existing one. Sometimes it is enough to give only a few buttons these functionality as an addition.

If I should explain something in more detail please give me a note.

David if you like you can add this widget to your tips page.

regards

Reimar

> So again, the design involves having options initially (menu). Some options > aren't relevant initially such as "Save" and "Print", so if the user clicks on > these I issue messages for the user telling them there's no point clicking > these ones yet. The most likely thing they will want to do initially is > "Analysis". "Analysis" is the button with the event handler I described above: > programs that just simply get executed one after the other. During execution of > the event-handler programs, the menu buttons can't be clicked, mainly due to > the fact that the region drawing/moving uses the CURSOR command - so the > computer is waiting for mouse clicks inside the graphics window. (You might > prefer draw widgets w/o CURSOR etc etc, but there's really no problem I can see > with doing it the way I have. It essentially creates MODAL functionality which > ensures the user gets to the end. Anyway I think this is beside the point). But > after this part is done and the results have been displayed, that's the end of > "Analysis". Now they might want to print the results... or do another > analysis...etc. > > Also, exactly what DOES happen when instead, the user doesn't get fed up, > finishes the whole event handling routine, and we arrive at the "END" command > at the conclusion of the event-handler? Where is program execution? What is > happening? I'm thinking that we're ready for another menu-button press?? > > Would appreciate any guidance on a structure, > Thanks. > Andre Kyme Reimar Bauer Institut fuer Stratosphaerische Chemie (ICG-1) Forschungszentrum Juelich email: R.Bauer@fz-juelich.de http://www.fz-juelich.de/icg/icg1/ a IDL library at ForschungsZentrum Juelich http://www.fz-juelich.de/icg/icg1/idl icglib/idl lib intro.h tml http://www.fz-juelich.de/zb/text/publikation/juel3786.html read something about linux / windows http://www.suse.de/de/news/hotnews/MS.html PRO wid1 own event, event

```
IF WIDGET INFO(event.top,/active) THEN $
  a=WIDGET_EVENT(WIDGET_INFO(event.top,find_by_uname='wid1_DOW
N'),/nowait,bad id=bad)
 IF WIDGET INFO(event.top,/active) THEN $
  a=WIDGET_EVENT(WIDGET_INFO(event.top,find_by_uname='wid1_UP'
),/nowait,bad id=bad)
 IF WIDGET INFO(event.top,/active) THEN $
  a=WIDGET EVENT(WIDGET INFO(event.top,find by uname='wid1 QUI
T'),/nowait,bad id=bad)
END
PRO wid1_event, Event
 WIDGET_CONTROL, event.top, get_uvalue=values
 CASE event.id OF
   WIDGET INFO(event.top,find by uname='wid1 QUIT'): BEGIN
    (*values).is up =0
    (*values).is down =0
    WIDGET CONTROL, event.top,/destroy
   END
   WIDGET INFO(event.top,find by uname='wid1 UP'): BEGIN
    (*values).is up =1
    (*values).is_down =0
    IF event.select EQ 1 THEN BEGIN
       WIDGET_CONTROL, WIDGET_INFO (event.top, find_by_uname='wid1_DRA
W'), get uvalue=WINDOW
      WSET, WINDOW
      WHILE (*values).counter LE (*values).max AND $
      (*values).is up EQ 1 DO BEGIN
      ERASE
      XYOUTS,0.5,0.5,/NORM,'UP',alignment=0.5, $
          charsize=(*values).counter/100.
      (*values).counter=(*values).counter+1
      wid1 own event, event
    ENDWHILE
   ENDIF
 END
 WIDGET INFO(event.top,find by uname='wid1 DOWN'): BEGIN
   (*values).is up =0
   (*values).is down =1
   IF event.select EQ 1 THEN BEGIN
     WIDGET CONTROL, WIDGET INFO (event.top, find by uname='wid1 DRA
W'),get_uvalue=WINDOW
    WSET, WINDOW
    WHILE (*values).counter GT (*values).min AND $
```

```
(*values).is down EQ 1 DO BEGIN
    ERASE
    XYOUTS,0.5,0.5,/NORM,'DOWN',alignment=0.5, $
        charsize=(*values).counter/100.
    (*values).counter=(*values).counter-1
    wid1 own event, event
   ENDWHILE
 ENDIF
END
ELSE:
ENDCASE
END
PRO wid1, GROUP LEADER=wGroup, EXTRA= VWBExtra
 ID_BASE_0=WIDGET_BASE( GROUP_LEADER=wGroup,$
      SCR_XSIZE=300, SCR_YSIZE=200, TITLE='IDL',$
      SPACE=3, XPAD=3, YPAD=3)
 ID DRAW 0=WIDGET DRAW(id base 0,$
      XOFFSET=100, YOFFSET=7, SCR XSIZE=185,$
      SCR YSIZE=160,uname='wid1 DRAW')
 ID_UP=WIDGET_BUTTON(id_base_0, $
    XOFFSET=44, YOFFSET=60, XSIZE=50, /ALIGN CENTER, $
    VALUE='UP',event_pro='wid1_event',uname='wid1_UP')
 ID DOWN=WIDGET BUTTON(id base 0, $
     XOFFSET=44, YOFFSET=83, XSIZE=50, $
     /ALIGN CENTER, VALUE='DOWN',$
     event_pro='wid1_event',uname='wid1_DOWN')
 ID QUIT=WIDGET BUTTON(id base 0, $
     /ALIGN_CENTER ,VALUE='QUIT', $
     event_pro='wid1_event',uname='wid1_QUIT')
 WIDGET CONTROL, /REALIZE, id BASE 0
 WIDGET CONTROL, id draw 0, get value=window no
 WIDGET CONTROL,id draw 0,set uvalue=window no
 WSET,window_no
 ERASE
 values=PTR NEW(CREATE STRUCT('counter',0L,'min',1L,'max',100 00L,'is up',0,$
     'is down',0))
```

WIDGET_CONTROL, /REALIZE, id_BASE_0,set_uvalue=values

XMANAGER, 'wid1', id_BASE_0 PTR_FREE, values END

File Attachments
1) wid1.pro, downloaded 158 times