Subject: Re: checking for pending events
Posted by davidf on Sat, 30 Nov 1996 08:00:00 GMT
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Chris Chase <chris.chase@jhuapl.edu> writes:

> Is there a way to check if events are pending?
>
> I have a widget program that has a "play" mode, i.e. it continuously
> updates using widget timer events (widget_control, wid, timer=1.0). I
> do not want to update until all previous events created by an update
> have been processed. During an update I use events as a natural way
> for updating various top-level widget hierarchies. I want these
> events and any cascading events they produce to be processed before
> doing another application update.
>
> I would like to be able to do something like:
>
> pro event_handler, ev
>
> case ev.id of
>
>   wid.timer: begin
>   if not widget_events_pending() then begin
>   ;; perform update task
>   endif
>   widget_control, wid.timer, timer=.25
>   end
> ....
> endcase
> return
> end

There is no way, as far as I know, to determine if a particular event
is pending. But I can think of a way to approach this problem that
might work in your particular application.

You can use the function WIDGET_EVENT to look at the event queue
for a particular widget and any of its children. If no events are
queued up for that widget or its children, the event structure that is
returned from the function has a 0 in the ID field. This would tell
you there are no more events pending, it's OK to do your updating.

The problem, of course, is what happens *IF* events are pending.
When you look at the event queue with WIDGET_EVENT, you get the
event structure of the first event pending on the queue.
What do you do with it? You could probably have a look-up table
of IDs and their corresponding event handlers and pass the event

along properly to the correct event handler, but this seems like a lot of work and is the whole purpose of XMANAGER anyway.

But in your case, since the events you are looking for are update events, what do you care in what order they are processed? Just put the event back on the queue with WIDGET_CONTROL and the SEND_EVENT keyword. Your code might look like this:

```
case ev.id of

  wid.timer: begin
    thisEvent = WIDGET_EVENT(tlb, /NOWAIT)
    IF thisEvent.ID EQ 0 THEN BEGIN
          ; No updates pending, set next update event.
       WIDGET_CONTROL, updateWidgetID, TIMER=0.25
    ENDIF ELSE BEGIN
          ; Whoops, here is a pending event. Put it at end of current
queue.
       WIDGET_CONTROL, thisEvent.ID, SEND_EVENT=thisEvent
          ; Come back and check again in a little bit.
       WIDGET_CONTROL, ev.id, TIMER=0.1
    ENDELSE
  end

 endcase
```

Anyway, it's a suggestion! :-)

David

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*
*  Sometimes I go about pitying myself, and all along my
*  soul is being blown by great winds across the sky.
*                              -- Ojibway saying
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