EarlyKeyboard Events

The earlyKeyboard event was added in Igor Pro 9.00.

The earlyKeyboard event is like the keyboard event but is sent, to graph and control panel windows only, before other components of those windows get the keyboard event. Its purpose is to let you filter key presses in graphs and panels before they reach a control.

The keycode, specialKeyCode, and keyText fields work the same as with the keyboard event.

The earlyKeyboard event sets the focusCtrl field which was added in Igor Pro 9.00.

If the event is earlyKeyboard and the window or its subwindows have a control with keyboard focus, the focusCtrl field is set to the name of the control and the winName field is set to the path of the window or subwindow that contains the control. If you return a non-zero result from the hook function when it receives the earlyKeyboard event, you prevent the control from receiving the keyboard event.

Only graphs and control panels receive earlyKeyboard events. Other window types receive normal keyboard events before any use is made of the keyboard events, making the earlyKeyboard event redundant.

Setting the Mouse Cursor

An advanced programmer can use a named window hook function to change the mouse cursor.

You might want to do this, for example, if your window hook function intercepts mouse events on certain items (e.g., waves) and performs custom actions. By setting a custom mouse cursor you indicate to the user that clicking the items results in different-from-normal actions.

See the Mouse Cursor Control example experiment - in Igor choose File→Example Experiments→Programming→Mouse Cursor Control.

Panel Done Button Example

This example uses a window hook and button action procedure to implement a panel dialog with a Done button such that the panel can't be closed by clicking the panel's close widget, but can be closed by the Done button's action procedure:

```
Proc ShowDialog()
   PauseUpdate; Silent 1          // building window...
   NewPanel/N=Dialog/W=(225,105,525,305) as "Dialog"
   Button done,pos={119,150},size={50,20},title="Done"
   Button done,proc=DialogDoneButtonProc
   TitleBox warning,pos={131,83},size={20,20},title=""
   TitleBox warning,anchor=MC,fColor=(65535,16385,16385)
   SetWindow Dialog hook(dlog)=DialogHook, hookevents=2
EndMacro

Function DialogHook(s)
   STRUCT WMWinHookStruct &s
   Variable statusCode= 0
     strswitch( s.eventName )
     case "killVote":
        TitleBox warning win=$s.winName, title="Press the Done button!"
        Beep
        statusCode=2                     // prevent panel from being killed.
        break
     case "mousemoved":                  // to reset the warning
        TitleBox warning win=$s.winName, title=""
        break
   endswitch
   return statusCode
End
```