WMButtonAction

This structure is passed to action procedures for button controls created using the **Button** operation.

```
Structure WMButtonAction
    char ctrlName[32]        // Control name
    char win[200]            // Host window or subwindow name
    STRUCT Rect winRect      // Local coordinates of host window
    STRUCT Rect ctrlRect     // Enclosing rectangle of the control
    STRUCT Point mouseLoc    // Mouse location
    Int32 eventCode          // See details below
    Int32 eventMod           // See Control Structure eventMod Field on page III-438
    String userData          // Primary unnamed user data.
    Int32 blockReentry       // Obsolete, see Control Structure blockReentry Field on page
    III-439
EndStructure
```

The constants used to specify the size of structure char arrays are internal to Igor Pro and may change.

WMButtonAction eventCode Field

Your action function should test the eventCode field and respond only to documented eventCode values because other event codes may be added in the future.

The event code passed to the button action procedure has the following meaning:

Event Code	Event
-3	Control received keyboard focus (Igor8 or later)
-2	Control received keyboard focus (Igor8 or later)
-1	Control being killed
1	Mouse down
2	Mouse up
3	Mouse up outside control
4	Mouse moved
5	Mouse enter
6	Mouse leave
7	Mouse dragged while outside the control

Events 2 and 3 happen only after event 1.

Events 4, 5, and 6 happen only when the mouse is over the control but happen regardless of the mouse button state.

Event 7 happens only when the mouse is pressed inside the control and then dragged outside.

WMCheckboxAction

This structure is passed to action procedures for checkbox controls created using the **CheckBox** operation.

```
Structure WMCheckboxAction
    char ctrlName[MAX_OBJ_NAME+1]      // Control name
    char win[MAX_WIN_PATH+1]           // Host window or subwindow name
    STRUCT Rect winRect                // Local coordinates of host window
    STRUCT Rect ctrlRect               // Enclosing rectangle of the control
    STRUCT Point mouseLoc              // Mouse location
    Int32 eventCode                    // See details below
    Int32 eventMod                     // See Control Structure eventMod Field on page
    III-438
    String userData                    // Primary unnamed user data
    Int32 blockReentry                 // Obsolete, see Control Structure blockReentry
    Field on page III-439
    Int32 checked                      // Checkbox state
    char vName[MAX_OBJ_NAME+2 + (MAXDIMS * (MAX_OBJ_NAME+5)) + 1]  // Name of variable
    WAVE ckWave;                       // Valid if using wave
    Int32 rowIndex                     // Row index for a wave, if rowLabel is empty
    char rowLabel[MAX_OBJ_NAME+1]      // Wave row dimension label
    Int32 colIndex                     // Column index for a wave if colLabel is empty
    char colLabel[MAX_OBJ_NAME+1]      // Wave column dimension label
    Int32 layerIndex                   // Layer index for a wave if layerLabel is empty
    char layerLabel[MAX_OBJ_NAME+1]    // Wave layer dimension label
```