## XNextEvent, XPeekEvent, XWindowEvent, XCheckWindowEvent, XMaskEvent, XCheck-MaskEvent, XCheckTypedEvent, XCheckTypedWindowEvent – select events by type

```
XNextEvent(display, event return)
   Display *display;
   XEvent *event_return;
XPeekEvent(display, event_return)
   Display *display;
   XEvent *event_return;
XWindowEvent(display, w, event_mask, event_return)
   Display *display;
   Window w;
   long event_mask;
   XEvent *event_return;
Bool XCheckWindowEvent(display, w, event_mask, event_return)
   Display *display;
   Window w;
   long event mask;
   XEvent *event_return;
XMaskEvent(display, event_mask, event_return)
   Display *display;
   long event_mask;
   XEvent *event_return;
Bool XCheckMaskEvent(display, event_mask, event_return)
   Display *display;
   long event_mask;
   XEvent *event_return;
Bool XCheckTypedEvent(display, event_type, event_return)
   Display *display;
   int event_type;
   XEvent *event_return;
Bool XCheckTypedWindowEvent(display, w, event_type, event_return)
   Display *display;
   Window w;
   int event_type;
   XEvent *event_return;
                 Specifies the connection to the X server.
display
event_mask
                Specifies the event mask.
                Returns the matched event's associated structure.
event_return
event_return
                Returns the next event in the queue.
event return
                Returns a copy of the matched event's associated structure.
                 Specifies the event type to be compared.
event_type
                Specifies the window whose event uou are interested in.
w
```

The XNextEvent function copies the first event from the event queue into the specified XEvent structure and then removes it from the queue. If the event queue is empty, XNextEvent flushes the output buffer and blocks until an event is received.

The **XPeekEvent** function returns the first event from the event queue, but it does not remove the event from the queue. If the queue is empty, **XPeekEvent** flushes the output buffer and blocks until an event is received. It then copies the event into the client-supplied **XEvent** structure without removing it from the event queue.

The **XWindowEvent** function searches the event queue for an event that matches both the specified window and event mask. When it finds a match, **XWindowEvent** removes that event from the queue and copies it into the specified **XEvent** structure. The other events stored in the queue are not discarded. If a matching event is not in the queue, **XWindowEvent** flushes the output buffer and blocks until one is received.

The **XCheckWindowEvent** function searches the event queue and then the events available on the server connection for the first event that matches the specified window and event mask. If it finds a match, **XCheckWindowEvent** removes that event, copies it into the specified **XEvent** structure, and returns **True**. The other events stored in the queue are not discarded. If the event you requested is not available, **XCheckWindowEvent** returns **False**, and the output buffer will have been flushed.

The **XMaskEvent** function searches the event queue for the events associated with the specified mask. When it finds a match, **XMaskEvent** removes that event and copies it into the specified **XEvent** structure. The other events stored in the queue are not discarded. If the event you requested is not in the queue, **XMaskEvent** flushes the output buffer and blocks until one is received.

The **XCheckMaskEvent** function searches the event queue and then any events available on the server connection for the first event that matches the specified mask. If it finds a match, **XCheckMaskEvent** removes that event, copies it into the specified **XEvent** structure, and returns **True**. The other events stored in the queue are not discarded. If the event you requested is not available, **XCheckMaskEvent** returns **False**, and the output buffer will have been flushed.

The **XCheckTypedEvent** function searches the event queue and then any events available on the server connection for the first event that matches the specified type. If it finds a match, **XCheckTypedEvent** removes that event, copies it into the specified **XEvent** structure, and returns **True**. The other events in the queue are not discarded. If the event is not available, **XCheckTypedEvent** returns **False**, and the output buffer will have been flushed.

The **XCheckTypedWindowEvent** function searches the event queue and then any events available on the server connection for the first event that matches the specified type and window. If it finds a match, **XCheckTypedWindowEvent** removes the event from the queue, copies it into the specified **XEvent** structure, and returns **True**. The other events in the queue are not discarded. If the event is not available, **XCheckTypedWindowEvent** returns **False**, and the output buffer will have been flushed.

XAnyEvent(3X11), XIfEvent(3X11), XPutBackEvent(3X11), XSendEvent(3X11) Xlib – C Language X Interface