**XIfEvent, XCheckIfEvent, XPeekIfEvent** – check the event queue with a predicate procedure

**XIfEvent**

```c
Display *display;
XEvent *event_return;
Bool (*predicate)();
XPointer arg;
```

`Bool XCheckIfEvent(display, event_return, predicate, arg)`

`Display *display;`

`XEvent *event_return;`

`Bool (*predicate)();`

`XPointer arg;`

`XPeekIfEvent(display, event_return, predicate, arg)`

`Display *display;`

`XEvent *event_return;`

`Bool (*predicate)();`

`XPointer arg;`

- `arg` specifies the user-supplied argument that will be passed to the predicate procedure.
- `display` specifies the connection to the X server.
- `event_return` returns either a copy of or the matched event’s associated structure.
- `predicate` specifies the procedure that is to be called to determine if the next event in the queue matches what you want.

The **XIfEvent** function completes only when the specified predicate procedure returns **True** for an event, which indicates an event in the queue matches. **XIfEvent** flushes the output buffer if it blocks waiting for additional events. **XIfEvent** removes the matching event from the queue and copies the structure into the client-supplied **XEvent** structure.

When the predicate procedure finds a match, **XCheckIfEvent** copies the matched event into the client-supplied **XEvent** structure and returns **True**. (This event is removed from the queue.) If the predicate procedure finds no match, **XCheckIfEvent** returns **False**, and the output buffer will have been flushed. All earlier events stored in the queue are not discarded.

The **XPeekIfEvent** function returns only when the specified predicate procedure returns **True** for an event. After the predicate procedure finds a match, **XPeekIfEvent** copies the matched event into the client-supplied **XEvent** structure without removing the event from the queue. **XPeekIfEvent** flushes the output buffer if it blocks waiting for additional events.

**XAnyEvent(3X11), XNextEvent(3X11), XPutBackEvent(3X11) XSendEvent(3X11)**

**Xlib – C Language X Interface**