XFlush, XSync, XEventsQueued, XPending – handle output buffer or event queue

**XFlush**(*display*)

Declarations

```c
Display *display;
```

**XSync**(*display*, *discard*)

Declarations

```c
Display *display;
Bool discard;
```

**XEventsQueued**(*display*, *mode*)

```c
Display *display;
int mode;
```

**XPending**(*display*)

```c
Display *display;
```

discard Specifies a Boolean value that indicates whether **XSync** discards all events on the event queue.
display Specifies the connection to the X server.
mode Specifies the mode. You can pass QueuedAlready, QueuedAfterFlush, or QueuedAfterReading.

The **XFlush** function flushes the output buffer. Most client applications need not use this function because the output buffer is automatically flushed as needed by calls to **XPending**, **XNextEvent**, and **XWindowEvent**. Events generated by the server may be enqueued into the library’s event queue.

The **XSync** function flushes the output buffer and then waits until all requests have been received and processed by the X server. Any errors generated must be handled by the error handler. For each protocol error received by Xlib, **XSync** calls the client application’s error handling routine (see section 11.8.2). Any events generated by the server are enqueued into the library’s event queue.

Finally, if you passed **False**, **XSync** does not discard the events in the queue. If you passed **True**, **XSync** discards all events in the queue, including those events that were on the queue before **XSync** was called. Client applications seldom need to call **XSync**.

If mode is QueuedAlready, **XEventsQueued** returns the number of events already in the event queue (and never performs a system call). If mode is QueuedAfterFlush, **XEventsQueued** returns the number of events already in the queue if the number is nonzero. If there are no events in the queue, **XEventsQueued** flushes the output buffer, attempts to read more events out of the application’s connection, and returns the number read. If mode is QueuedAfterReading, **XEventsQueued** returns the number of events already in the queue if the number is nonzero. If there are no events in the queue, **XEventsQueued** attempts to read more events out of the application’s connection without flushing the output buffer and returns the number read.

**XEventsQueued** always returns immediately without I/O if there are events already in the queue.

**XEventsQueued** with mode QueuedAfterFlush is identical in behavior to **XPending**. **XEventsQueued** with mode QueuedAlready is identical to the **XQueueLength** function.

The **XPending** function returns the number of events that have been received from the X server but have not yet been removed from the event queue. **XPending** is identical to **XEventsQueued** with the mode QueuedAfterFlush specified.

AllPlanes(3X11), XIfEvent(3X11), XNextEvent(3X11), XPutBackEvent(3X11)

**Xlib** – **C Language X Interface**