

NAME

XIGrabDevice, XIUngrabDevice - grab or ungrab the device.

SYNOPSIS

```
#include <X11/extensions/XInput2.h>
```

```
Status XIGrabDevice( Display *display,  
                    int deviceid,  
                    Window grab_window,  
                    Time time,  
                    Cursor cursor,  
                    int grab_mode,  
                    int paired_device_mode,  
                    Bool owner_events,  
                    XIEventMask *mask);
```

```
Status XIUngrabDevice( Display *display,  
                       int deviceid,  
                       Time time);
```

cursor

Specifies the cursor image to display for the duration of the grab.

display

Specifies the connection to the X server.

deviceid

Specifies the device that should be grabbed or ungrabbed.

grab_mode, paired_device_mode

The grab mode for this device and (if applicable) the paired device.

grab_window

The grab window.

mask

Event mask.

owner_events

True if events are to be reported normally.

time

A valid timestamp or CurrentTime.

DESCRIPTION

XIGrabDevice actively grabs control of the device. Further device events are reported only to the grabbing client. XIGrabDevice overrides any active device grab by this client.

If the device is an attached slave device, the device is automatically detached from the master device and reattached to the same master device when client ungrabs the device. If the master device is removed while the device is floating as a result of a grab, the device remains floating once the grab deactivates.

If owner_events is False, all generated device events are reported with respect to grab_window if selected. If owner_events is True and if a generated device event would normally be reported to this client, it is reported normally; otherwise, the event is reported with respect to the grab_window, and is only reported if specified in the event mask.

If the grab_mode argument is XIGrabModeAsync, device event processing continues as usual. If the device is currently frozen by this client, then processing of device events is resumed. If the grab_mode argument is XIGrabModeSync, the state of the device (as seen by client applications) appears to freeze, and the X server generates no further device events until the grabbing client issues a releasing XIAllowEvents call or until the device grab is released. Actual device changes are not lost while the device is frozen; they are simply queued in the server for later processing.

If paired_device_mode is XIGrabModeAsync, processing of events from the paired master device is unaffected by activation of the grab. If paired_device_mode is XIGrabModeSync, the state of

the paired master device (as seen by client applications) appears to freeze, and the X server generates no further events from this device until the grabbing client issues a releasing `XIAAllowEvents` call or until the device grab is released. Actual events are not lost while the devices are frozen; they are simply queued in the server for later processing. If the device is a slave device `paired_device_mode` is ignored.

If the device is actively grabbed by some other client, `XIGrabDevice` fails and returns `AlreadyGrabbed`. If `grab_window` is not viewable, it fails and returns `GrabNotViewable`. If the device is frozen by an active grab of another client, it fails and returns `GrabFrozen`. If the specified time is earlier than the last-device-grab time or later than the current X server time, it fails and returns `GrabInvalidTime`. Otherwise, the last-device-grab time is set to the specified time. `CurrentTime` is replaced by the current X server time.

If cursor is not `None` this cursor is displayed until the client calls `XIUngrabDevice`.

`XIGrabDevice` can generate `BadDevice`, `BadValue`, and `BadWindow` errors.

The `XIUngrabDevice` request releases the device and any queued events if this client has it actively grabbed from either `XIGrabDevice` or `XIGrabKey` or `XIGrabButton`. If other devices are frozen by the grab, `XIUngrabDevice` thaws them. `XIUngrabDevice` does not release the device and any queued events if the specified time is earlier than the last-device-grab time or is later than the current X server time. The X server automatically performs an `XIUngrabDevice` request if the event window for an active device grab becomes not viewable.

`XIUngrabDevice` can generate a `BadDevice` error.

DIAGNOSTICS

`BadValue`

A value is outside of the permitted range.

BadDevice

An invalid device was specified. The device does not exist or is not appropriate for the type of change.

BadMatch

The window is not viewable.

BadWindow

A value for a Window argument does not name a defined Window.

BUGS

The protocol headers for XI 2.0 did not provide XIGrabModeAsync or XIGrabModeSync. Use GrabModeSync and GrabModeAsync instead, respectively.

SEE ALSO

XIAllowEvents(3)