

**NAME**

XtGrabKey, XtUngrabKey, XtGrabKeyboard, XtUngrabKeyboard, XtGrabButton, XtUngrabButton, XtGrabPointer, XtUngrabPointer – manage grabs

**SYNTAX**

```
void XtGrabKey(Widget widget, KeyCode keycode, Modifiers modifiers, Boolean owner_events, int
    pointer_mode, int keyboard_mode);

void XtUngrabKey(Widget widget, KeyCode keycode, Modifiers modifiers);

int XtGrabKeyboard(Widget widget, Boolean owner_events, int pointer_mode, int keyboard_mode, Time
    time);

void XtUngrabKeyboard(Widget widget, Time time);

void XtGrabButton(Widget widget, int button, Modifiers modifiers, Boolean owner_events, unsigned int
    event_mask, int pointer_mode, int keyboard_mode, Window confine_to, Cursor cursor);

void XtUngrabButton(Widget widget, KeyCode button, Modifiers modifiers);

int XtGrabPointer(Widget widget, Boolean owner_events, unsigned int event_mask, int pointer_mode, int
    keyboard_mode, Window confine_to, Cursor cursor, Time time);

void XtUngrabPointer(Widget widget, Time time);
```

**ARGUMENTS**

*widget* Specifies the widget in whose window the grab will occur. Must be of class Core or a subclass thereof.

*keycode*

*modifiers*

*owner\_events*

*pointer\_mode*

*keyboard\_mode*

*time*

*button*

*confine\_to*

*cursor*

Specifies arguments to the associated Xlib function call.

**DESCRIPTION**

**XtGrabKey** calls **XGrabKey** specifying the widget's window as the grab window if the widget is realized. The remaining arguments are exactly as for **XGrabKey**. If the widget is not realized, or is later unrealized, the call to **XGrabKey** will be performed (again) when the widget is realized and its window becomes mapped. In the future, if **XtDispatchEvent** is called with a **KeyPress** event matching the specified keycode and modifiers (which may be **AnyKey** or **AnyModifier**, respectively) for the widget's window, the Intrinsics will call **XtUngrabKeyboard** with the timestamp from the **KeyPress** event if either of the following conditions is true:

- There is a modal cascade and the widget is not in the active subset of the cascade and the keyboard was not previously grabbed, or
- **XFilterEvent** returns **True**.

**XtUngrabKey** calls **XUngrabKey** specifying the widget's window as the ungrab window if the widget is realized. The remaining arguments are exactly as for **XUngrabKey**. If the widget is not realized, **XtUngrabKey** removes a deferred **XtGrabKey** request, if any, for the specified widget, keycode, and modifiers.

If the specified widget is realized **XtGrabKeyboard** calls **XGrabKeyboard** specifying the widget's window as the grab window. The remaining arguments and return value are exactly as for **XGrabKeyboard**. If the widget is not realized, **XtGrabKeyboard** immediately returns **GrabNotViewable**. No future ungrab is implied by **XtGrabKeyboard**.

**XtUngrabKeyboard** calls **XUngrabKeyboard** with the specified time.

**XtGrabButton** calls **XGrabButton** specifying the widget's window as the grab window if the widget is realized. The remaining arguments are exactly as for **XGrabButton**. If the widget is not realized, or is later unrealized, the call to **XGrabButton** will be performed (again) when the widget is realized and its window becomes mapped. In the future, if **XtDispatchEvent** is called with a **ButtonPress** event matching the specified button and modifiers (which may be **AnyButton** or **AnyModifier**, respectively) for the widget's window, the Intrinsics will call **XtUngrabPointer** with the timestamp from the **ButtonPress** event if either of the following conditions is true:

- There is a modal cascade and the widget is not in the active subset of the cascade and the pointer was not previously grabbed, or
- **XFilterEvent** returns **True**.

**XtUngrabButton** calls **XUngrabButton** specifying the widget's window as the ungrab window if the widget is realized. The remaining arguments are exactly as for **XUngrabButton**. If the widget is not realized, **XtUngrabButton** removes a deferred **XtGrabButton** request, if any, for the specified widget, button, and modifiers.

**XtGrabPointer** calls **XGrabPointer** specifying the widget's window as the grab window. The remaining arguments and return value are exactly as for **XGrabPointer**. If the widget is not realized, **XtGrabPointer** immediately returns **GrabNotViewable**. No future ungrab is implied by **XtGrabPointer**.

**XtUngrabPointer** calls **XUngrabPointer** with the specified time.

## SEE ALSO

*X Toolkit Intrinsics – C Language Interface*

*Xlib – C Language X Interface*