NAME

XGetDeviceKeyMapping, XChangeDeviceKeyMapping - query or change device key mappings

SYNOPSIS

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

KeySym *XGetDeviceKeyMapping( Display *display,
                    XDevice *device,
                    KeyCode first_keycode,
                    int keycode_count,
                    int *keysyms_per_keycode_return);
```

display
: Specifies the connection to the X server.

device
: Specifies the device whose key mapping is to be queried or modified.

first_keycode
: Specifies the first KeyCode to be returned.

keycode_count
: Specifies the number of KeyCodes to be returned or modified.

keysyms_per_keycode
: Specifies the number of KeySyms per KeyCode.

keysyms_per_keycode_return
: Specifies the address of a variable into which the number of KeySyms per KeyCode will be returned.

keysyms
: Specifies the address of an array of KeySyms.

DESCRIPTION

For the specified device, the XGetDeviceKeyMapping request returns the symbols for the specified number of KeyCodes starting with first_keycode. The value specified in first_keycode must be greater than or equal to min_keycode as

returned by XListInputDevices, or a BadValue error results. In addition, the following expression must be less than or equal to max_keycode as returned by XListInputDevices:

first_keycode + keycode_count - 1

If this is not the case, a BadValue error results. The number of elements in the KeySyms list is:

keycode_count * keysyms_per_keycode_return

KeySym number N, counting from zero, for KeyCode K has the following index in the list, counting from zero: (K - first_code) * keysyms_per_code_return + N

The X server arbitrarily chooses the keysyms_per_keycode_return value to be large enough to report all requested symbols. A special KeySym value of NoSymbol is used to fill in unused elements for individual KeyCodes. To free the storage returned by XGetDeviceKeyMapping, use XFree.

If the specified device does not support input class keys, a BadMatch error will result.

XGetDeviceKeyMapping can generate a BadDevice, BadMatch, or BadValue error.

For the specified device, the XChangeDeviceKeyMapping request defines the symbols for the specified number of KeyCodes starting with first_keycode. The symbols for KeyCodes outside this range remain unchanged. The number of elements in keysyms must be:

num_codes * keysyms_per_keycode

The specified first_keycode must be greater than or equal to min_keycode returned by XListInputDevices, or a BadValue error results. In addition, the following expression must be less than or equal to max_keycode as returned by XListInputDevices, or a BadValue error results:

first_keycode + num_codes - 1

KeySym number N, counting from zero, for KeyCode K has the following index in keysyms, counting from zero:

(K - first_keycode) * keysyms_per_keycode + N

The specified keysyms_per_keycode can be chosen arbitrarily by the client to be large enough to hold all desired symbols. A special KeySym value of NoSymbol should be used to fill in unused elements for individual KeyCodes. It is legal for NoSymbol to appear in nontrailing positions of the effective list for a KeyCode. XChangeDeviceKeyMapping generates a DeviceMappingNotify event that is sent to all clients that have selected that type of event.

There is no requirement that the X server interpret this mapping. It is merely stored for reading and writing by clients.

If the specified device does not support input class keys, a BadMatch error results.

XChangeDeviceKeyMapping can generate a BadDevice, BadMatch, BadAlloc, or BadValue error.

DIAGNOSTICS

BadDevice

An invalid device was specified. The specified device does not exist or has not been opened by this client via XOpenInputDevice. This error may also occur if the specified device is the X keyboard or X pointer device.

BadMatch

This error may occur if an XGetDeviceKeyMapping or XChangeDeviceKeyMapping request was made specifying a device that has no keys.

BadValue

Some numeric value falls outside the range of values

accepted by the request. Unless a specific range is specified for an argument, the full range defined by the argument’s type is accepted. Any argument defined as a set of alternatives can generate this error.

BadAlloc
The server failed to allocate the requested resource or server memory.

SEE ALSO

XSetDeviceButtonMapping(3), XSetDeviceModifierMapping(__3_)