

NAME

`XkbChangeMap` - Update only partial components of a keyboard description, modify the appropriate fields in the server and map components of a local copy of the keyboard description

SYNOPSIS

Bool `XkbChangeMap` (**Display** **dpy*, **XkbDescPtr** *xkb*, **XkbMapChangesPtr** *changes*);

ARGUMENTS

dpy connection to X server

xkb description from which new values are taken

changes

identifies component parts to update

DESCRIPTION

To update only partial components of a keyboard description, modify the appropriate fields in the server and map components of a local copy of the keyboard description, then call `XkbChangeMap` with an `XkbMapChangesRec` structure indicating which components have changed.

`XkbChangeMap` copies any components specified by the *changes* structure from the keyboard description, *xkb*, to the X server specified by *dpy*.

If any components specified by *changes* are not present in the *xkb* parameter, `XkbChangeMap` returns False. Otherwise, it sends a request to the server and returns True.

`XkbChangeMap` can generate `BadAlloc`, `BadLength`, and `BadValue` protocol errors.

RETURN VALUES

True The `XkbChangeMap` function returns True if the components specified by *changes* are present in the *xkb* parameter.

False The `XkbChangeMap` function returns False if the components specified by *changes* are not present in the *xkb* parameter.

STRUCTURES

Use the `XkbMapChangesRec` structure to identify and track partial modifications to the mapping components and to reduce the amount of traffic between the server and clients.

```
typedef struct _XkbMapChanges {
```

```

unsigned short  changed;      /* identifies valid components in structure */
KeyCode        min_key_code; /* lowest numbered keycode for device */
KeyCode        max_key_code; /* highest numbered keycode for device */
unsigned char  first_type;   /* index of first key type modified */
unsigned char  num_types;    /* # types modified */
KeyCode        first_key_sym; /* first key whose key_sym_map changed */
unsigned char  num_key_syms; /* # key_sym_map entries changed */
KeyCode        first_key_act; /* first key whose key_acts entry changed */
unsigned char  num_key_acts; /* # key_acts entries changed */
KeyCode        first_key_behavior; /* first key whose behaviors changed */
unsigned char  num_key_behaviors; /* # behaviors entries changed */
KeyCode        first_key_explicit; /* first key whose explicit entry changed */
unsigned char  num_key_explicit; /* # explicit entries changed */
KeyCode        first_modmap_key; /* first key whose modmap entry changed */
unsigned char  num_modmap_keys; /* # modmap entries changed */
KeyCode        first_vmodmap_key; /* first key whose vmodmap changed */
unsigned char  num_vmodmap_keys; /* # vmodmap entries changed */
unsigned char  pad1;         /* reserved */
unsigned short  vmods;       /* mask indicating which vmods changed */
} XkbMapChangesRec,*XkbMapChangesPtr;

```

DIAGNOSTICS

- BadAlloc** Unable to allocate storage
- BadLength** The length of a request is shorter or longer than that required to minimally contain the arguments
- BadValue** An argument is out of range