

**NAME**

XSetWMProperties, XmbSetWMProperties, Xutf8SetWMProperties - set standard window properties

**SYNTAX**

```
void XSetWMProperties(Display *display, Window w, XTextProperty *window_name,  
    XTextProperty *icon_name, char **argv, int argc, XSizeHints *normal_hints, XWMHints  
    *wm_hints, XClassHint *class_hints);
```

```
void XmbSetWMProperties(Display *display, Window w, _Xconst char *window_name, _Xconst char  
    *icon_name, char *argv[], int argc, XSizeHints *normal_hints, XWMHints *wm_hints,  
    XClassHint *class_hints);
```

```
void Xutf8SetWMProperties(Display *display, Window w, _Xconst char *window_name, _Xconst  
    char *icon_name, char *argv[], int argc, XSizeHints *normal_hints, XWMHints *wm_hints,  
    XClassHint *class_hints);
```

**ARGUMENTS**

- argc* Specifies the number of arguments.
- argv* Specifies the application's argument list.
- class\_hints* Specifies the **XClassHint** structure to be used.
- display* Specifies the connection to the X server.
- icon\_name* Specifies the icon name, which should be a null-terminated string.
- normal\_hints* Specifies the size hints for the window in its normal state.
- w* Specifies the window.
- window\_name* Specifies the window name, which should be a null-terminated string.
- wm\_hints* Specifies the **XWMHints** structure to be used.

**DESCRIPTION**

The **XSetWMProperties** convenience function provides a single programming interface for setting those essential window properties that are used for communicating with other clients (particularly window and session managers).

If the `window_name` argument is non-NULL, **XSetWMProperties** calls **XSetWMName**, which in turn, sets the `WM_NAME` property (see section 14.1.4). If the `icon_name` argument is non-NULL, **XSetWMProperties** calls **XSetWMIconName**, which sets the `WM_ICON_NAME` property (see section 14.1.5). If the `argv` argument is non-NULL, **XSetWMProperties** calls **XSetCommand**, which sets the `WM_COMMAND` property (see section 14.2.1). Note that an `argc` of zero is allowed to indicate a zero-length command. Note also that the hostname of this machine is stored using **XSetWMClientMachine** (see section 14.2.2).

If the `normal_hints` argument is non-NULL, **XSetWMProperties** calls **XSetWMNormalHints**, which sets the `WM_NORMAL_HINTS` property (see section 14.1.7). If the `wm_hints` argument is non-NULL, **XSetWMProperties** calls **XSetWMHints**, which sets the `WM_HINTS` property (see section 14.1.6).

If the `class_hints` argument is non-NULL, **XSetWMProperties** calls **XSetClassHint**, which sets the `WM_CLASS` property (see section 14.1.8). If the `res_name` member in the **XClassHint** structure is set to the NULL pointer and the `RESOURCE_NAME` environment variable is set, then the value of the environment variable is substituted for `res_name`. If the `res_name` member is NULL, the environment variable is not set, and `argv` and `argv[0]` are set, then the value of `argv[0]`, stripped of any directory prefixes, is substituted for `res_name`.

The **XmbSetWMProperties** and **Xutf8SetWMProperties** convenience functions provide a simple programming interface for setting those essential window properties that are used for communicating with other clients (particularly window and session managers).

If the `window_name` argument is non-NULL, they set the `WM_NAME` property. If the `icon_name` argument is non-NULL, they set the `WM_ICON_NAME` property. The `window_name` and `icon_name` arguments are null-terminated strings, for **XmbSetWMProperties** in the encoding of the current locale, for **Xutf8SetWMProperties** in UTF-8 encoding. If the arguments can be fully converted to the `STRING` encoding, the properties are created with type `"STRING"`; otherwise, the arguments are converted to Compound Text, and the properties are created with type `"COMPOUND_TEXT"`.

If the `normal_hints` argument is non-NULL, **XmbSetWMProperties** and **Xutf8SetWMProperties** call **XSetWMNormalHints**, which sets the `WM_NORMAL_HINTS` property (see section 14.1.7). If the `wm_hints` argument is non-NULL, **XmbSetWMProperties** and **Xutf8SetWMProperties** call **XSetWMHints**, which sets the `WM_HINTS` property (see section 14.1.6).

If the `argv` argument is non-NULL, **XmbSetWMProperties** and **Xutf8SetWMProperties** set the `WM_COMMAND` property from `argv` and `argc`. An `argc` of zero indicates a zero-length command.

The hostname of the machine is stored using **XSetWMClientMachine** (see section 14.2.2).

If the `class_hints` argument is non-NULL, **XmbSetWMProperties** and **Xutf8SetWMProperties** set the `WM_CLASS` property. If the `res_name` member in the **XClassHint** structure is set to the NULL pointer and the `RESOURCE_NAME` environment variable is set, the value of the environment variable is substituted for `res_name`. If the `res_name` member is NULL, the environment variable is not set, and `argv` and `argv[0]` are set, then the value of `argv[0]`, stripped of any directory prefixes, is substituted for `res_name`.

It is assumed that the supplied `class_hints.res_name` and `argv`, the `RESOURCE_NAME` environment variable, and the hostname of the machine are in the encoding of the current locale. The corresponding `WM_CLASS`, `WM_COMMAND`, and `WM_CLIENT_MACHINE` properties are typed according to the local host locale announcer. No encoding conversion is performed for these strings prior to storage in the properties.

For clients that need to process the property text in a locale, **XmbSetWMProperties** and **Xutf8SetWMProperties** set the `WM_LOCALE_NAME` property to be the name of the current locale. The name is assumed to be in the Host Portable Character Encoding and is converted to `STRING` for storage in the property.

**XSetWMProperties**, **XmbSetWMProperties** and **Xutf8SetWMProperties** can generate **BadAlloc** and **BadWindow** errors.

The function **Xutf8SetWMProperties** is an extension introduced by The XFree86 Project, Inc., in their 4.0.2 release. Its presence is indicated by the macro **X\_HAVE\_UTF8\_STRING**.

## PROPERTIES

**WM\_CLASS** Set by application programs to allow window and session managers to obtain the application's resources from the resource database.

### WM\_CLIENT\_MACHINE

The string name of the machine on which the client application is running.

### WM\_COMMAND

The command and arguments, null-separated, used to invoke the application.

**WM\_HINTS** Additional hints set by the client for use by the window manager. The C type of this property is **XWMHints**.

### WM\_ICON\_NAME

The name to be used in an icon.

**WM\_NAME** The name of the application.

**WM\_NORMAL\_HINTS**

Size hints for a window in its normal state. The C type of this property is **XSizeHints**.

## DIAGNOSTICS

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

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

## SEE ALSO

XAllocClassHint(3), XAllocIconSize(3), XAllocSizeHints(3), XAllocWMHints(3),  
XParseGeometry(3), XSetCommand(3), XSetTransientForHint(3), XSetTextProperty(3),  
XSetWMClientMachine(3), XSetWMColormapWindows(3), XSetWMIconName(3),  
XSetWMName(3), XSetWMProtocols(3), XStringListToTextProperty(3),  
XTextListToTextProperty(3)  
*Xlib - C Language X Interface*