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Data Types

The following is a list of XView data types and their descriptions.

`Canvas` — Handle to an opaque structure that describes a canvas.

`Canvas_attribute` — One of the canvas attributes (CANVAS_*).

`Xv_Cursor` — Handle to an opaque structure that describes a cursor.

`Xv_Cursor_attribute` — One of the cursor attributes (CURSOR_*).

`Destroy_status` — Enumeration:
DESTROY_PROCESS_DEATH
DESTROY_CHECKING
DESTROY_CLEANUP
DESTROY_SAVE_YOURSELF

`Dnd` — Handle to an opaque structure that describes a drag and drop object.

`DndDragType` — Enumeration:
DND_MOVE=0
DND_COPY

`Xv_drag_drop` — Handle to an opaque structure that describes a drag and drop object.

`Drop_site_item` — Handle to an opaque structure that describes a drop site.

`Xv_drop_site` — Handle to an opaque structure that describes a drop site.

`Event` — The structure that describes an input event. Use macros for access:

```
typedef struct inputevent {
  short  ie_code;
            /* input code */
  short  ie_flags;
  short  ie_shiftmask;
            /* input code shift state */
  short  ie_locx, ie_locy;
            /* locator (usually a mouse) position */
```

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```
   struct timeval ie_time;
            /* time  of event */
   short  action;
           /* keymapped version of ie_code */
   Xv_object ie_win;
           /* window the event is directed to */
   char   *ie_string;
           /* String returned from XLookupString
            * or language translation string.  */
   XEvent  *ie_xevent;
           /* pointer to actual XEvent struct */
 } Event;
```

`Xv_Font`	Pointer to an opaque structure that describes a font.
`Xv_Font_attribute`	One of the font attributes (`FONT_*`).
`Frame`	Pointer to an opaque structure that describes a frame.
`Frame_attribute`	One of the frame attributes (`FRAME_*`).
`Fullscreen`	Handle to an opaque structure that describes a fullscreen.
`Fullscreen_attribute`	One of the fullscreen attributes (`FULLSCREEN_*`).
`Icon`	Handle to an opaque structure that describes a icon.
`Icon_attribute`	One of the icon attributes (`ICON_*`).
`Inputmask`	Mask specifying which input events a window will receive.
`Menu`	Pointer to an opaque structure that describes a menu.
`Menu_attribute`	One of the menu attributes (`MENU_*`).

`Menu_generate`	Enumerated type for the `operation` parameter passed to generate procs. Enumeration:
	`MENU_DISPLAY`
	`MENU_DISPLAY_DONE`
	`MENU_NOTIFY`
	`MENU_NOTIFY_DONE`

`Xv_notice`	Handle to an opaque structure that describes a notice.
`Xv_Notice`	Handle to an opaque structure that describes a notice.
`Menu_item`	Pointer to an opaque structure that describes a menu item.
`Notice_attribute`	One of the notice attributes (`NOTICE_*`).
`Notify_arg`	Opaque client optional argument.

`Notify_destroy`	Enumeration:
	`NOTIFY_SAFE`
	`NOTIFY_IMMEDIATE`

`Notify_event`	Opaque client event.

`Notify_event_type` Enumeration of errors for notifier functions:

- NOTIFY_SAFE
- NOTIFY_IMMEDIATE

`Notify_func` Notifier function.

`Notify_signal_mode` Enumeration:

- NOTIFY_SYNC
- NOTIFY_ASYNC

`Notify_value` Enumeration of possible return values for client `notify procs`:

- NOTIFY_DONE
- NOTIFY_IGNORED
- NOTIFY_UNEXPECTED

`Openwin_split_direction`
Enumeration:

- OPENWIN_SPLIT_HORIZONTAL
- OPENWIN_SPLIT_VERTICAL

`Panel` Pointer to an opaque structure that describes a panel.

`Panel_attr` One of the panel attributes (PANEL_*).

`Panel_item` Pointer to an opaque structure that describes a panel item.

`Panel_item_type` Enumerated type:

- PANEL_ABBREV_MENU_BUTTON_ITEM
- PANEL_BUTTON_ITEM
- PANEL_CHOICE_ITEM
- PANEL_DROP_TARGET_ITE
- PANEL_EXTENSION_ITEM
- PANEL_GAUGE_ITEM
- PANEL_ITEM
- PANEL_LIST_ITEM
- PANEL_MESSAGE_ITEM
- PANEL_MULTILINE_TEXT_ITEM
- PANEL_NUMERIC_TEXT_ITEM
- PANEL_SLIDER_ITEM
- PANEL_TEXT_ITEM
- PANEL_TOGGLE_ITEM

`Panel_list_op` Enumerated type:

- PANEL_LIST_OP_DELETE
- PANEL_LIST_OP_DESELECT
- PANEL_LIST_OP_SELECT
- PANEL_LIST_OP_VALIDATE

`Panel_setting` — Enumerated type:

```
PANEL_CLEAR
PANEL_NO_CLEAR
PANEL_NONE
PANEL_ALL
PANEL_NON_PRINTABLE
PANEL_SPECIFIED
PANEL_CURRENT
PANEL_DONE
PANEL_MARKED
PANEL_VERTICAL
PANEL_HORIZONTAL
PANEL_INVERTED
PANEL_INSERT
PANEL_NEXT
PANEL_PREVIOUS
PANEL_NONE_DOWN
PANEL_LEFT_DOWN
PANEL_MIDDLE_DOWN
PANEL_RIGHT_DOWN
PANEL_CHORD_DOWN
```

`Rect` — The structure describing a rectangle:

```
typedef struct rect {
      short r_left;
      short r_top;
      short r_width;
      short r_height;
} Rect;
```

`Rectlist` — A list of rectangles:

```
typedef struct rectlist {
      short rl_x, rl_y;
      Rectnode *rl_head;
      Rectnode *rl_tail;
      Rect rl_bound;
  } Rectlist;
```

`Rectnode` — One of the individual rectangles in a `rectlist`:

```
typedef struct rectnode {
      Rectnode *rn_next;
      Rect     rn_rect;
  } Rectnode;
```

`Xv_Screen` — Pointer to an opaque structure that describes a screen.

`Xv_Screen_attr` — One of the screen attributes (`SCREEN_*`).

`Scrollbar` — The opaque handle for a scrollbar.

`Scrollbar_attr` — One of the scrollbar attributes (`SCROLL_*`).

`Scrollbar_motion` Enumeration:
SCROLL_ABSOLUTE
SCROLL_POINT_TO_MIN
SCROLL_PAGE_FORWARD
SCROLL_LINE_FORWARD
SCROLL_MIN_TO_POINT
SCROLL_PAGE_BACKWARD
SCROLL_LINE_BACKWARD
SCROLL_TO_END
SCROLL_TO_START
SCROLL_NONE

`Scrollbar_setting` Enumeration:
SCROLL_VERTICAL
SCROLL_HORIZONTAL

`Selection_item` Handle to an opaque structure that describes the selection item.

`Selection_owner` Handle to an opaque structure that describes the selection owner.

`Selection_requestor` Handle to an opaque structure that describes the selection requestor.

`Seln_attribute` One of the seln attributes.

`Xv_Server` Pointer to an opaque structure that describes a server.

`Server_attr` One of the server attributes.

`Server_image` Pointer to an opaque structure that describes a server image.

`Server_image_attribute`
One of the Server_image attributes:
SERVER_IMAGE_DEPTH
SERVER_IMAGE_BITS

`Xv_single_color` Color values for a pixel. Defined in <*xview/cms.h*>.

```
typedef struct xv_singlecolor {
     u_char red, green, blue;
  } Xv_singlecolor;
```

`Textsw` Pointer to an opaque structure that describes a text subwindow.

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`Textsw_action`	Enumeration of actions defined for client provided `notify_proc`:
	`TEXTSW_ACTION_CAPS_LOCK`
	`TEXTSW_ACTION_CHANGED_DIRECTORY`
	`TEXTSW_ACTION_EDITED_FILE`
	`TEXTSW_ACTION_EDITED_MEMORY`
	`TEXTSW_ACTION_FILE_IS_READONLY`
	`TEXTSW_ACTION_LOADED_FILE`
	`TEXTSW_ACTION_TOOL_CLOSE`
	`TEXTSW_ACTION_TOOL_DESTROY`
	`TEXTSW_ACTION_TOOL_QUIT`
	`TEXTSW_ACTION_TOOL_MGR`
	`TEXTSW_ACTION_USING_MEMORY`

`Textsw_attribute`	One of the Textsw attributes.

`Textsw_enum`	Miscellaneous Textsw Enumerations:
	`TEXTSW_NEVER`
	`TEXTSW_ALWAYS`
	`TEXTSW_ONLY`
	`TEXTSW_IF_AUTO_SCROLL`
	`TEXTSW_CLIP`
	`TEXTSW_WRAP_AT_CHAR`
	`TEXTSW_WRAP_AT_WORD`
	`TEXTSW_WRAP_AT_LINE`

`Textsw_index`	An index for a character within a text subwindow's text stream.
`Textsw_view`	Pointer to an opaque structure that describes a text subwindow view.
`Textsw_status`	Enumeration describing the status of textsw.build and textsw.init.
`Tty`	Pointer to an opaque structure that describes a `TTY` subwindow.
`Xv_Window`	Pointer to an opaque structure that describes a window.
`Window_attr`	One of the window attributes (`WIN_*`).

`Window_scale_state`	Enumeration:
	`WIN_SCALE_SMALL`
	`WIN_SCALE_MEDIUM`
	`WIN_SCALE_LARGE`
	`WIN_SCALE_EXTRALARGE`

`Xv_error_action` Enumeration:

```
XV_ERROR_CONTINUE
XV_ERROR_RETRY
XV_ERROR_ABORT
```

`Xv_error_attr` Enumeration:

```
XV_ERROR_SYSTEM
XV_ERROR_BAD_VALUE
XV_ERROR_CREATE_ONLY
XV_ERROR_CANNOT_SET
XV_BERROR_CANNOT_GET
XV_ERROR_SERVER
XV_ERROR_STRING
XV_ERROR_INVALID_OBJ
XV_ERROR_INTERNAL
```

`Xv_error_severity` Enumeration:

```
XV_ERROR_RECOVERABLE
XV_ERROR_NON_RECOVERABLE
```

`Xv_object` Pointer to an opaque structure that describes an XView object.

`Xv_opaque` Pointer to an opaque structure.

`Xv_xrectlist` A list of rectangles returned by XView in X11 rectangle list format. Defined in *xv_xrect.h*

```
#define XV_MAX_XRECTS 32
typedef struct {
        XRectangle      rect_array[XV_MAX_XRECTS];
        int             count;
} Xv_xrectlist;
```

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