

**NAME**

XvCreateImage, XvShmCreateImage - create an XvImage

**SYNOPSIS**

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

```
XvImage * XvCreateImage (Display *dpy, XvPortID port,  
int id, char *data,  
int width, int height);
```

```
XvImage * XvShmCreateImage (Display *dpy, XvPortID port,  
int id, char *data,  
int width, int height,  
XShmSegmentInfo *shminfo);
```

**ARGUMENTS**

*dpy* Specifies the connection to the X server.

*port* Specifies the port the XvImage will be used with.

*id* Specifies the format of the image to be created by the XvImageFormatValues id.

*data* Specifies the image data.

*width, height*  
Specifies the desired width and height of the image.

**DESCRIPTION**

**XvCreateImage(3)** is similar to **XCreateImage(3)**. **XvShmCreateImage(3)** is similar to **XShmCreateImage(3)**. The library will allocate the XvImage structure and fill out all fields except for *data*. *Width* and *height* may be enlarged in some YUV formats. The size of the data buffer that needs to be allocated will be given in the *data\_size* field in the XvImage. Image data is not allocated by this function. The client may pass a pointer to the preallocated memory as *data* or may allocate the memory and fill in the XvImage structure's data field after the *data\_size* field has been filled out by the server. The XvImage structure may be freed by **XFree(3)**. Shared memory segments are attached/detached with **XShmAttach(3)/XShmDetach(3)**.

**RETURN VALUES**

XvImage has the following structure:

```
typedef struct {
    int id;
    int width, height;
    int data_size;
    int num_planes;
    int *pitches;
    int *offsets;
    char *data;
    XPointer obdata;
} XvImage;
```

*id* A descriptor for the format from the `XvImageFormatValues` structure returned by **XvListImageFormats(3)**.

*width, height*  
The width and height of the image in pixels.

*data\_size* The size of the data buffer in bytes.

*num\_planes*  
The number of image planes.

*pitches* An array of size *num\_planes* indicating the scanline pitch in bytes. Each plane may have a different pitch.

*offsets* An array of size *num\_planes* indicating the byte offset from *data* to the start of each plane.

*data* A pointer to the start of the data buffer.

*obdata* A private field for holding SHM info. This field will be set up by the client libraries so the programmer will generally need not be concerned with this field.

## DIAGNOSTICS

[XvBadPort]

Generated if the requested port does not exist.

[XvBadAlloc]

Generated if the X server was unable to allocate resources required to complete the operation.

**[BadMatch]**

Generated if incompatible arguments were supplied, such as a port that isn't capable of displaying XvImages.

**SEE ALSO**

**XvListImageFormats(3), XCreateImage(3), XShmCreateImage(3), XShmAttach(3), XShmDetach(3).**