NAME
   Xv - X Window System video extension

DESCRIPTION
   The X Video Extension (Xv) extension provides support for video adaptors attached to an X display. It
   takes the approach that a display may have one or more video adaptors, each of which has one or more
   ports through which independent video streams pass.

   An adaptor may be able to display video in a drawable, capture video from a drawable, or both. It
   translates between video encoding (NTSC, PAL, SECAM, etc...) and drawable format (depth and
   visual-id pair). An adaptor may support multiple video encodings and/or multiple drawable formats.

   Clients use **Xv**(3) to gain access and manage sharing of a display's video resources. Typically, a client
   will use **XvQueryExtension**(3) to determine the status of the extension, **XvQueryAdaptors**(3) to get a
   description of what video adaptors exist, and **XvQueryEncodings**(3) to get a description of what video
   encodings an adaptor supports.

   Once a client has determined what video resources are available, it is free to put video into a drawable
   or get video from a drawable, according the capabilities supported. Clients can select to receive events
   when video activity changes in a drawable and when port attributes have changed.

   The Xv protocol version 2.2 and later is extended to support client images in alternate colorspaces
   (XvImages). Xv adaptors which are capable of displaying XvImages will have the XvImageMask field
   set in the type field of the XvAdaptorInfo. XvImage formats supported by the port may be queried
   with **XvListImageFormats**(3). XvImages may be created with the help of **XvCreateImage**(3) or
   XvShmCreateImage(3); XvImages may be displayed with **XvPutImage**(3) or **XvShmPutImage**(3). The
   Port attributes of the port specified in the Xv(Shm)PutImage command will be valid for the image
   operation when applicable. There will be a port encoding with the name "XV_IMAGE". The width
   and height of that encoding will indicate the maximum source image size.

SUMMARY OF LIBRARY FUNCTIONS
   The following is a summary of Xv library functions and events:

   XvCreateImage(3) - create an XvImage

   XvGetPortAttribute(3) - return current port attribute value

   XvGetStill(3) - capture a single frame of video from a drawable

   XvGetVideo(3) - capture video from a drawable

XvGrabPort(3) - lock port for exclusive use by client

XvListImageFormats(3) - return list of image formats for a port

XvPortNotify(3) - event generated when port attributes change

XvPutImage(3) - write a XvImage to a drawable

XvPutStill(3) - write a single frame of video to a drawable

XvPutVideo(3) - write video into a drawable

XvQueryAdaptors(3) - return adaptor information for a screen

XvQueryBestSize(3) - determine the optimum drawable region size

XvQueryEncodings(3) - return list of encodings for an adaptor

XvQueryExtension(3) - return version and revision of extension

XvQueryPortAttributes(3) - return list of attributes of a port

XvSelectPortNotify(3) - enable or disable XvPortNotify events

XvSelectVideoNotify(3) - enable or disable XvVideoNotify events

XvSetPortAttribute(3) - set an attribute for a port

XvShmCreateImage(3) - create an XvImage in shared memory

XvShmPutImage(3) - write a XvImage in shared memory to a drawable

XvStopVideo(3) - stop active video

XvUngrabPort(3) - release a grabbed port

XvVideoNotify(3) - event generated for video processing

Each of these functions and events is described in its own Xv man page.