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Videodisc Control Stacks for CLV and CAV Formats

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TOPIC -----

Does the APDA Videodisc Toolkit, which allows you to control a videodisc player from HyperCard, work with both CAV and CLV discs?

DISCUSSION -----

The command set of the videodisc player is the same for both CAV and CLV discs. This means that the Videodisc Toolkit will work with both type of discs.

However, there are differences in the discs that will not allow certain commands to provide useful results. Because the Videodisc Toolkit documentation states that the Toolkit does not specifically address CLV control, determining the controls that actually work with CLV discs is a matter of exploring. (Often, the videodisc player determines the available functions when using CLV discs. The player knows whether a CLV or CAV disc is loaded. Some functions are disabled by the player when CLV discs are in the tray.

Commands related to "frameMode" -- that is, "videoFrame()" -- do not work. Using "chapterMode" instead allows access to longer sections of video. The "playVideo" and "searchVideo" commands use chapter numbers rather than frame numbers when in "chapterMode".

Still-frame with CAV discs provides a crisp and clear still image. Attempting to freeze a frame from a CLV disc will not produce a stable image. This is a limitation inherent in the design and layout of CLV discs, not a limitation of the Videodisc Toolkit. CAV discs place one video frame per revolution of the disc; CLV discs place any number of frames within one revolution. One frame per revolution allows the disc to continue to spin with the laser reading head stationary, thus providing the same frame once per revolution. CAV discs have differing numbers of frames

from the outside edge of the disc to the inside of the disc. Holding the laser reading head stationary will not provide a stable image, because there is a variable number of frames/fields passing under the head in one revolution.

The Voyager Company markets "The Voyager VideoStack", which supports time mode with the CLV discs. This allows a stack to tell the player to go, for example, to "19 minutes 12 seconds" and begin playing until it reaches "21 minutes 32 seconds." This is not frame accurate, but in many situations provides sufficiently accurate control.

Voyager also provides "VideoStack 8000 Extension", which is for the Pioneer 8000 player. These extensions support special 8000 model features, such as true CLV still-frame and CLV frame search, digital sound control, and still-frame with audio. CLV still-frame is achieved through the use of the Pioneer 8000 digital frame buffer. The Pioneer 8000 can search to a particular frame and grab a frame of video into its digital buffer. This is different from the CAV method of still-frame.

The Tech Info Library article titled "Locating Vendor Information" can help you search for a particular vendor's address and phone number.

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