
WHEN VIDEO MARKING ENHANCES VIDEOCONFERENCES & DISTANCE LEARNING

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Courtesy of: Boeckeler Instruments, Inc.



The ability to draw and point on images during videoconference or distance learning sessions can seem ridiculous at first glance. After all, who would want to draw on the face talking to them? Or circle portions of the audience on the other end? A few humorous exceptions aside, the primary use of video marking has to do with the documents or illustrations being discussed, which are often generated by a document camera that is integrated in the videoconference system. In fact, whenever a document camera is being used, one might also find a video marker also necessary, as it assists both sides in discussing details of the document being displayed.

What Is Video Marking?

A video marker device is installed between the video source (e.g., a codec, VCR, or camera) and the video display (e.g., a projector or monitor). Once installed, the video marker receives the image from the source, overlays that image with the drawing and pointing features, then outputs the image with the markers to the display. Unlike the light from a laser pointer, video markers stay up on the image as drawings or pointers until such markers are erased. Unlike presentation software that might offer the ability to draw on computer images, a multiple-sync video marker adds flexibility of use — it can allow drawing and pointing on anything the computer generates AND on anything generated directly by a video camera, VCR, laserdisc player, or document camera. It simply overlays the markers on the video signal it receives.

This technology was first made famous by TV football commentators because of its ability to help them accurately describe the action on the last play. Later, the video marker was linked with a document camera and made famous in another arena — courtroom trials.

Simpson trial attorneys used a video marker to annotate details in exhibits because many different video sources were employed to generate those images — a document camera, VCR, laserdisc player, and computer — all requiring annotation.



For Videoconferences

Willbros Engineers, Inc., a multi-office engineering firm that specializes in the design of pipeline and fuel storage solutions, had set up a videoconferencing system last year as an efficient means to plan and review major designs with their remote office and with fuel clients as large as Exxon. Bill Faulkner, manager of design applications for the Tulsa-based company, said that many of Willbros's major clients were already using videoconferencing equipment as a regular tool for conducting business. By implementing videoconferencing at their sites, Willbros greatly reduced the time and money spent traveling between offices and clientele.

Yet, conducting design planning meetings required one more element to the videoconference system. Faulkner said he and his company also needed the ability to display engineering designs and to review computer spreadsheets that play a major role in the design process. With the detailed nature of these types of graphic images, there was also a need to annotate the images in order to help focus the remote viewer's attention on details being discussed.

For the annotation solution, a multiple-sync video marker was selected and installed. Using the RS-232 port, the video marker was connected to the data port of the CODEC at both the local and remote sites. Using the video marker's digitizing tablet, each side could draw, point, or write over details of the shared image, facilitating clear communication in the planning process.

The video marker's multiple-sync capability allowed annotation on both high resolution computer images and standard NTSC video sources such as a document camera or VCR. This feature, available only in certain video markers, added the flexibility to annotate both formal and informal designs — whether they were formal CAD drawings right from the computer, or informal sketches on paper that were displayed using a document camera.

Because a video marker was installed at both sites, the remote site can also mark over these images. Engineers select a unique color to represent their site's annotations, while the remote site selects a different color to represent their annotations.

According to Faulkner, the system installed with a video marker has greatly increased the communication level and teamwork between offices, and engineers are also able to have very productive meetings with their clients.

For Distance Learning

Currently, the largest distance learning network in the Federal Government is the Social Security Administration's Interactive Video Teletraining (IVT) program. This system, installed in 1996, is a live one-way video, two-way audio,

satellite-based training delivery system that uses a viewer response system for student interaction with the instructors. The program is currently used to train employees in 220 sites nationwide on changes in policies, procedures, and systems applications. In addition, employees are taught how to fill out the numerous input screens needed to pay benefits to 47 million retired and disabled beneficiaries. Managerial and new hire training is also included in the IVT sessions. All told, the administration broadcasts approximately 100 hours of programming per month.

According to SSA Distance Learning Manager Ward Bechtel, instructors needed a way to focus student attention on specific areas of the input screens being broadcast. Since the image could be generated from any of a variety of sources — computer or video — the best annotation solution was a multiple-sync video marker. Using a light pen, instructors mark directly on a PC monitor that is imbedded in a custom-designed, automated podium — emphasizing, for example, the input fields being discussed.

Bechtel says that with IVT, the administration has shaved 20 to 50% off training delivery time, depending on the course. In addition, the use of a video marker added further efficiency by focusing student attention, much the way chalk has long aided teachers in their traditional classrooms.

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