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## dTective Demystifies Multiplexing for Woburn PD

When Detective Bill Coakley of the Woburn Police Department in Massachusetts first started investigating robberies, VCRs hadn't even been invented. Today—30 years late—Coakley is armed with the latest and most advanced editing equipment available to law enforcement: the dTective system from Ocean Systems, powered by the Avid Xpress software. Coakley convinced his captain to purchase the forensic video analysis system last fall after they saw it in action at a LEVA (Law Enforcement and Emergency Services Video Association) conference. "From the first time I saw it, I wanted it," says Coakley.

Prior to working with the dTective system, 'frustrating' was the word that best summed up Coakley's experience with surveillance tapes. "Before getting dTective, we had a lot of tapes we couldn't do anything with. We just couldn't break a lot of them down. There were problems with multiplexing," he says. Multiplexing is a technique that allows businesses using surveillance tapes to encode them in order to enable recording of numerous cameras on a single tape—a money saver for them but a nightmare for law enforcement; unless, of course, they have the dTective system in place.

Using the dTective system's dPlex—a universal multiplex decoder—Coakley is able to isolate the camera he wants and then play the tape back in real time. With the advanced features of dPlex, he can avoid the cropping loss and compression artifacts caused by most decoders. "It really works," he says. "I was amazed the first time I saw it." The dPlex feature can be used with both analog video security images and digital CCTV pictures.

Coakley and his captain chose the Luggable version of the dTective system over the desktop model for its portability. With the Luggable system, Coakley can use it in the office - where it is usually set up - or on the road. It takes Coakley about 10 minutes to break it down and throw it in the back of his squad car. The Luggable saved the day when a tape was stuck in the store's machine—and time was of the essence. Coakley simply packed up the Luggable and carried it to the scene of the crime. "I brought the system



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to the store, hooked it up, and found the images I was looking for, and recorded them off their equipment. That was it," he says. Having the Luggable system also proves invaluable when working with banks on robberies; many bank managers are unwilling or unable to give up their surveillance videos. Not a problem for Coakley and his team; they just pay a visit to the bank.

For Coakley, the dTective system proved priceless in a string of drugstore robberies in and around Woburn. Stores in the area regularly get hit up for OxyContin, a powerful painkiller often crushed and snorted by drug addicts for a quick high. In one of the robberies, all Coakley had to work with was a videotape which had a couple of unclear images of the suspects on it. A few nights after he received the tape, police officers in a nearby town stopped a suspicious car and had a hunch that the guys they pulled over were the same ones Coakley was after for the robbery—but the officers couldn't confirm the IDs. Using the videotape from the original Woburn robbery, Coakley identified and matched the suspects' clothing on the tape with that of the two guys in the car. "This would have been absolutely impossible before," says Coakley. The two suspects are now behind bars.

In another case, a pharmacy was robbed of OxyContin. Using the dTective system, Coakley managed to get a still image of the suspect off of the videotape. He got the image to the local news, and—within hours—had five or six IDs of the suspects. "One of the two suspects plead guilty and started copping out to a whole bunch of robberies," says Coakley.

One case that stands out in Coakley's mind is one involving two sisters who were drug addicts and who were stealing expensive items from a local department store. One would go into the store; the other would drive the getaway car. It was hard to figure out who was who. "The system was able to isolate the cameras and pick up the one in the car," says Coakley. In that case—like in so many others—the verdict was guilty. "When you show up in court with the tape, there's little question," says Coakley.

In all of these cases, Coakley says he would have been unable to do anything without the dTective system. "All we would have had to hope for was a confession, and you definitely can't count on that," he says.

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