

Crime scene investigations

—by Leica Geosystems



The Leica Geosystems ScanStation, a state-of-the-art forensic 3D laser scanner, made its cable TV debut on “Fatal Feud,” the latest episode of A&E’s new hit Real-life criminal justice series, *Crime 360*. The episode aired March 13, 2008, and the Leica scanner will be regularly used on the series which features cutting-edge forensic technology.

The story begins when investigators are called to a housing project where two men have had a fatal argument. One is dead and the other is on the run. Is it a murder or self-defense? The first step in finding answers is to record the scene. The Leica ScanStation was used to collect a 3D laser scan of the murder victim and the living room where a struggle had taken place.

The scans enabled investigators to understand, in vivid 3D, the physical relationship of the doorway, furniture, walls and everything else in the room relative to the victim. Of special interest to police were the ricochet marks left behind by a single bullet on both the upper wall and ceiling.

Throughout the one-hour episode, viewers follow detectives as they interview witnesses and forensic scientists as they gather and study the crime scene. In the process, a gun was recovered from a trash can behind the housing project.

Later in the program, the scope of the investigation changes, and witness interviews bring forth a new theory that includes an alleged vehicle arriving at the scene shortly before the shooting. Investigators returned to the scene with the Leica ScanStation, and proceeded to 3D laser scan of the exterior of the apartment building and the street in front of the complex.

Leica 3D laser scanning technology has earned national attention, particularly for supporting shooting reconstruction.

The ScanStation makes millions of 3D measurements in just minutes, and by doing so preserves the crime scene exactly the way in which the first responder found it, forever. Long after the scene has been forensically examined and released, investigators can virtually return to the scene of the crime to make additional measurements or to verify what witnesses could have seen, based upon the accurately mapped physical environment.

The data can also be used to create compelling jury exhibits and animations which enable jurors to easily understand the layout of a crime scene.

The technology has been adopted by leading law enforcement agencies such as the California Highway Patrol, the Albuquerque Police Department, and the Los Angeles County Sheriff’s Department.

Just recently, Michael Haag, B.S., a firearms and toolmark examiner with the Albuquerque Police Department, and Tony Grissim of Leica Geosystems, presented a validation study titled “Technical Overview and Application of 3D Laser Scanning for Shooting Reconstruction and Crime Scene Investigations” to the American Academy of Forensic Sciences scientific meeting in Washington D.C.

For more information about the use of 3D laser scanning in forensic analysis, visit www.leica-geosystems.us/forensic.

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