D59 You View Your World in 3D — Shouldn't You View Your Case in the Same Manner? The Use of High-Definition Survey (HDS) Laser Scanning in Forensic Engineering

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After attending the presentation, attendees will understand how 3D data is collected, how the data is processed, and most importantly, how the data is utilized in actual case examples of all types.

This presentation will impact the forensic science community by bringing to the forefront the benefits of the most accurate and comprehensive 3D data collection available — HDS laser scanning.

A far cry from just a few years ago when measurements on all cases were collected using rulers and rolling wheels, new technology has allowed engineers and others to quickly collect accurate, comprehensive data in 3D. HDS laser scanning has opened a whole new world for any engineer, scientist, or technical person who needs to collect accurate, comprehensive 3D data. HDS laser scanning can be utilized to collect data from vehicular collisions, fires, building collapses, slip-and-fall events, and any other type of case that warrants accurate measurements.

The HDS laser scans provide invaluable data for analysis purposes (especially when the data is collected soon after the events occurred). The HDS laser scan data also provides a foundation of data (collected with unparalleled comprehension and accuracy) to allow the expert, the attorney/client, and the trier of fact to view the events in a 3D environment. Commercially available software allows for the creation of a 3D "real-world" environment that allows one to view the event or scene from almost any orientation. For example, a 3D environment allows for: an evaluation of what a driver could see through his/her windows and mirrors as he approached and executed a turn; an evaluation of what a witness could see through a window or door; a pedestrian's view of a pavement irregularity as he/she approached; and/or, 3D views of products such as vehicles or machines.

This presentation will focus on the accuracy of the data, how to get the data into evidence, and the cost of this new, must-have technology.

High-Definition Survey (HDS), 3D Data Collection, Laser Scanning