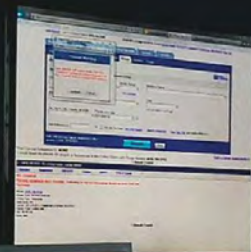▶ **SUMMARY**

When a Houston jury deliberated the fate of a father accused of killing his young son, video evidence created using specialized 3D software helped make their decision. The video was made using cell phone records and the 3D visualization software, GeoTime. The software allows law enforcement to quickly make sense of a lot of data and produce videos of suspect movements over time.
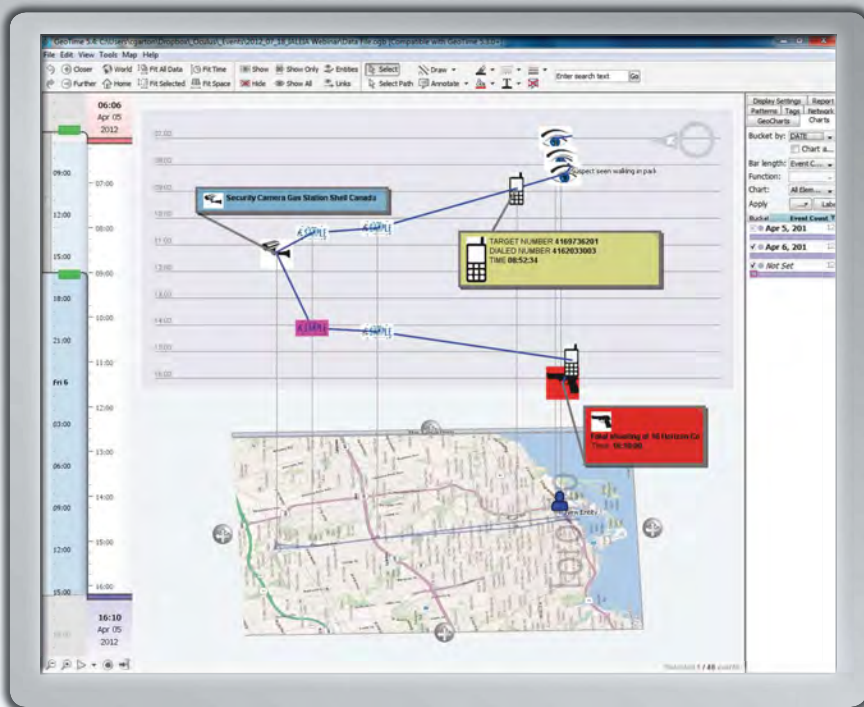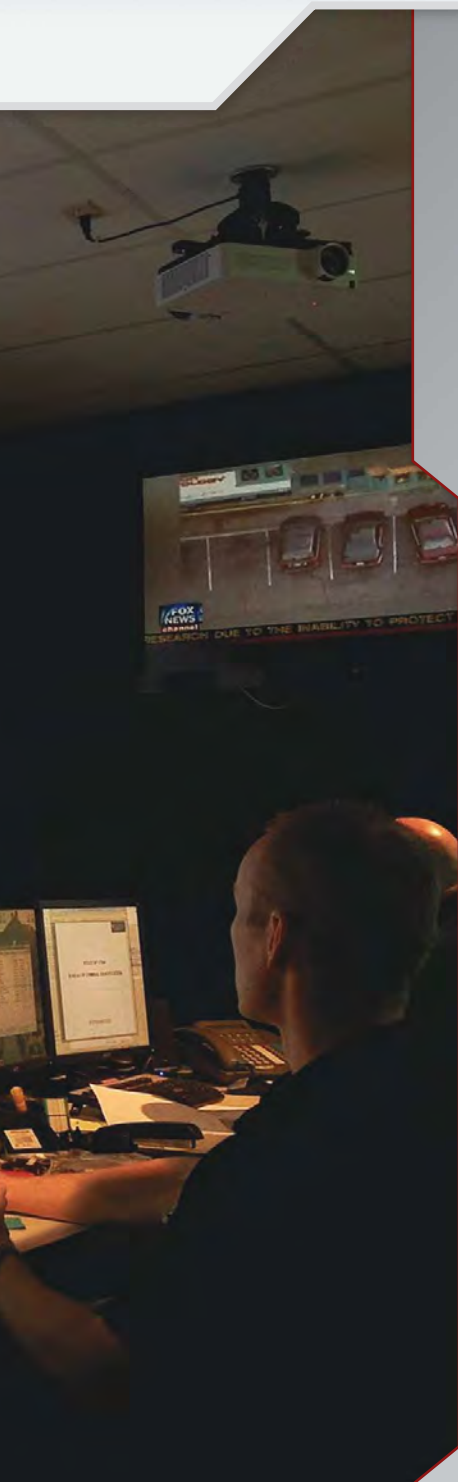
▶ **MORE INFORMATION**

www.geotime.com
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GEOTIME VISUALIZATION SOFTWARE

Jurors see evidence clearly with 3D visualization software.

▶ By Karen McDonough

When a Houston jury deliberated the fate of a father accused of killing his young son, video evidence created using specialized 3D software helped make their decision. The video evidence was shown during the October 2011 trial of Roderick Fountain and later for jurors, who requested seeing it again during deliberations. Within hours, they convicted Fountain of life in prison for murdering his 3-year-old son, Kendrick Jackson. The boy's body has never been found.

The video was made using Fountain's cell phone records and the three-dimensional (3D) visualization software, Geo-Time, from Oculus Info Inc. The software allows law enforcement to quickly make sense of a lot of data and produce videos of suspect movements over time. Prosecutors asked crime analysts to create a presentation-quality movie they could play at the trial, showing a 36-hour snapshot of the defendant's actions, said Ryan Volkmer, project director at a joint law enforcement taskforce center in Houston.

Using the GeoTime video editing tools, Volkmer put together an easy-to-follow, 17-minute video. He uploaded the original screenshots, including photos of the cell towers and pictures of the people Fountain spoke with. By inserting text boxes with the timeline of events, the jury could clearly see how the prosecution laid out its case. During Volkmer's testimony at the trial, he explained how he created the montage using the evidence.
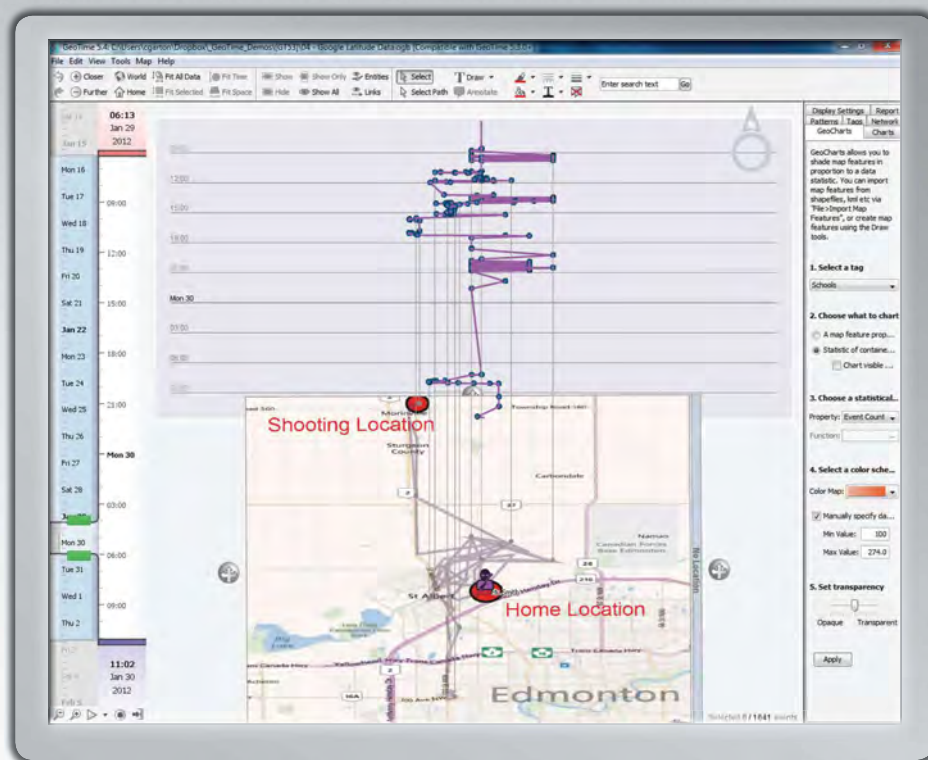
"What was telling during deliberations," Volkmer said, "was the judge asked me to cue the video because a couple of jurors requested to thumb through it themselves. When the data [is put into the 3D software] and fits with the prosecution's case and doesn't fit with the defendant's alibi, it's a powerful weapon in the conviction process."

From Disappearance to Homicide

The case began April 7, 2006 when the boy was reported missing. Police said Fountain, 37, was a parolee with a violent criminal past. The evening of the crime, Kendrick had been staying with Fountain in his Houston apartment when he told police the boy walked out the front door without his knowing. Despite a massive search led by the FBI, the boy wasn't found. Fountain, acting "too calm" according to police, was the initial suspect. He told investigators he was home before and after the reported disappearance.

But Fountain's cell phone records obtained by police showed an entirely different story. After the disappearance, Fountain was on the phone with several different women as he drove east from Houston on Interstate 10 into Louisiana—a stretch of road that becomes surrounded by a body of swampy water—toward his former residence in New Orleans. Then he turned around and returned to Texas.

Investigators theorized he fatally beat his son over not being potty trained at the time, then disposed of the body in the bayou. But lacking additional evidence, the case stalled for a few years. The FBI, which handles missing child cases, handed it back to Houston Police as a homicide investigation. Fountain returned to prison, convicted of being a felon in possession of a firearm, after authorities found a shotgun inside his home.

No new leads in the case surfaced until August 2011, when a jailhouse informant came forward, saying Fountain admitted killing his son and dumping the body. This new
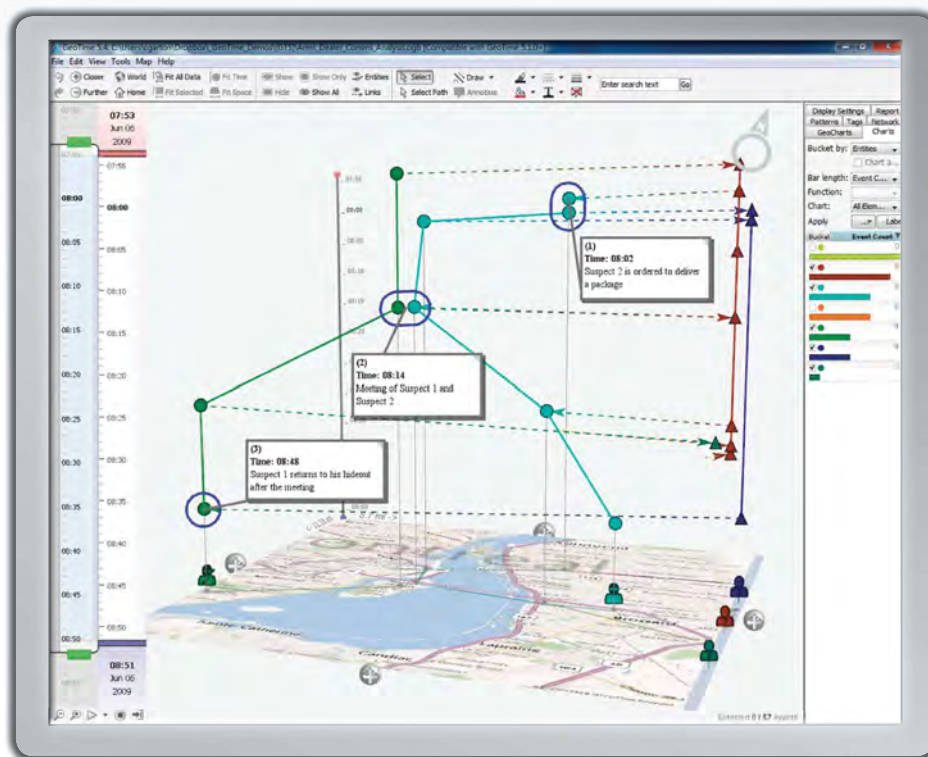
evidence, which supported the prosecution's case, was key to enabling authorities to bring the case to trial. This time, Houston Police turned to the 3D visualization software in use at the joint law enforcement taskforce center to analyze the original cell phone data.

In 2006, investigators and crime analysts had the laborious task of mapping the data—from calls and texts from several different phones. From each cell tower site, they plotted the latitude and longitude, then took a screenshot of each location using PowerPoint. Back then, it took two days to map 200 cell sites showing the defendant's travel patterns, which shot a hole in history to police. By contrast, today that same data uploaded into GeoTime can produce the same map within minutes, not days.

Many Uses

Along with analyzing cell phone records, GeoTime allows investigators to upload GPS tracking information to show a suspect's travel pattern, which helps establish a timeline for crime solving. The 3D visualization software also helps law enforcement better use limited resources by spotting crime trends. Using it with crime data stored in CAD, police can see patterns in crime trends and hot spots, giving a better understanding of where crime is occurring.

It can help law enforcement determine where best to allocate resources. Crime analysts can input arrest warrant information and geographical crime data to produce a map showing the address of wanted people, compared with the high crime areas. This allows an agency to see where to focus enforcement efforts.

Police can also handle calls for service with faster response times, which increases command and control and situational awareness, and can move an agency from the standard, reactive model of policing to proactive policing by showing where to attack problems.

"It's a very intuitive system," Volkmer said. "You don't have to spend a lot of time formatting data like with other programs." The software works with Excel spreadsheets and CSV files, as well as connecting directly with ESRI's ArcGIS, software and other

technology already in place at most law enforcement communication centers.

Karen McDonough is the former Public Information Officer for the Oceanside, Calif. Police Department. She may be reached at karenwriter@yahoo.com. Photos courtesy of GeoTime.

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