ACCIDENT RECONSTRUCTION

# Accident reconstruction, made easier to follow.

## Articles, WREX field context and video demonstrations

A focused reading and viewing presentation for Visuals for Law clients. The complete historical article appears in the appendix.

Start with the archived article



Original article scan image: Atlantic Laser Scanning Services, credited by Ed Oliveras / SPAR Point Group.

ACCIDENT RECONSTRUCTION

# Preserve the scene. Keep the source visible.



**Original photograph**
Cortes Towing Service, Longwood, Florida.



**3D scan view**
Atlantic Laser Scanning Services; FARO Scene 5.0.

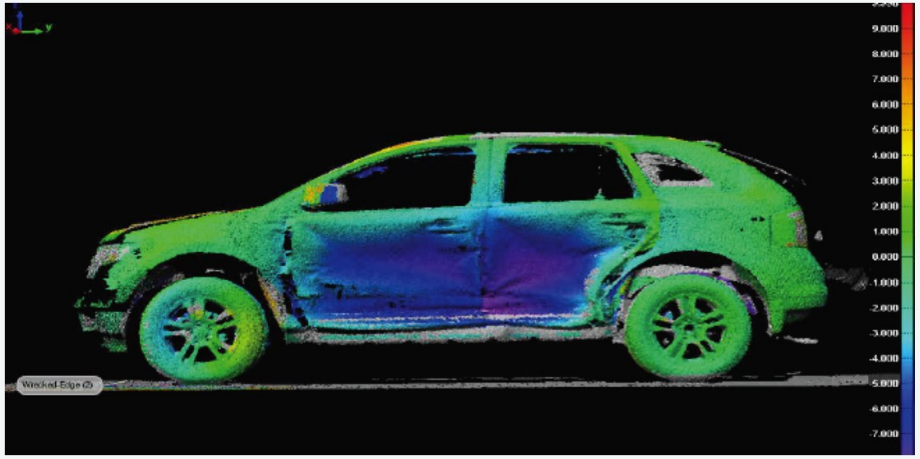
Both images appeared in Ed Oliveras’s January 7, 2013 SPAR article. They illustrate documentation of a damaged vehicle; this presentation supplies no new crash-cause or impact-force finding.

ACCIDENT RECONSTRUCTION

# From the archive: Accident Reconstruction

**Full speed ahead · Ed Oliveras · SPAR Point Group · January 7, 2013**

The article discusses preserving vehicle and scene conditions, preparing diagrams and visual exhibits, and comparing damaged vehicles with reference geometry. It also stresses the operator’s skill and the need for specialist training.



Read the original archived article

Full article and four original images: appendix, pages 8–11. Historical wording, product names and references are preserved; they are not current technical or legal guidance.

ACCIDENT RECONSTRUCTION

# WREX: field experience and public crash-test examples

**Eddie’s public WREX 2023 account**
His published comment describes crash-scanning work at WREX 2023. This is a first-person account, not an independent timing or accuracy test.

Open Eddie’s WREX comment

**Explore the event and its demonstrations**
The organizer’s history covers WREX crash-testing events. Virtual CRASH’s analysis page includes a WREX 2023 test example combining video, scene mapping and a vehicle point cloud.

WREX organizer: event history

WREX 2023 example: Virtual CRASH

These are historical and third-party references. They do not establish results for a client’s incident, or transfer ownership of third-party data.

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# Watch the methods, then discuss the case questions.




## Crash reconstruction with a laser scanner

Publisher: FARO INSIGHT

Watch original video □




## Video and image analysis — overview

Publisher: Virtual CRASH

Watch original video □




## Video and image analysis — demonstration

Publisher: Virtual CRASH

Watch original video □

Thumbnails link to the original publisher videos. Internet access is required; playback remains subject to the hosting service. Virtual CRASH’s WREX example is linked on page 4.

ACCIDENT RECONSTRUCTION

# A clear path from capture to client review.

### 01 CAPTURE

Scene and vehicle photographs, scan data, control measurements and capture dates.

### 02 CHECK

Coordinate system, scale, registration, coverage and independent check measurements.

### 03 EXPLAIN

Source-linked views, diagrams and animations reviewed by the responsible reconstruction expert.

Suggested workflow for discussion, not a report of work completed on a client’s case. Scan geometry alone does not establish impact speed, injury causation or responsibility. Agree the case questions and validation needs before producing a case-specific exhibit.

ACCIDENT RECONSTRUCTION

# Reading list and presentation notes

Ed Oliveras: Accident Reconstruction – Full speed ahead (2013)

WREX organizer: historical event information

Eddie’s public WREX 2023 comment

Virtual CRASH: video analysis and WREX 2023 example

FARO: official crash-reconstruction video page

PhotoModeler: Forensics and Accident Reconstruction video playlist

Prepared for Visuals for Law + GO3D. Original article and publisher credits remain with their creators. No third-party endorsement is implied. Public references checked November 5, 2026; availability can change. This collection is educational background, not a validated forensic finding or legal advice.

**Appendix follows:** complete accident-reconstruction article with original visuals and source links.

# Accident Reconstruction – Full speed ahead

Ed Oliveras · SPAR Point Group, *Vertically Oriented* · January 7, 2013

**Open Internet Archive copy** · Original SPAR address

Lately I've been getting many people brand new to scanning, including land surveyors interested in expanding into new markets, visiting me for consultation on how to start a business in Accident Reconstruction – often with no prior experience, training or even scanning knowledge! Apparently, almost anyone can offer accident reconstruction services (depending on the state); it's not a professionally regulated industry here in Florida, much to my surprise. Obviously, though, those that have better "credentials" get more business, along with those who have what I call "feathers in their caps" like retired police officers or those with an engineering degree, even a Ph.D. in a specific discipline.

*So how on Earth do these people think a noob break into such a competitive field?* Because 3D laser scanning has seen impressive sales growth in that industry within the last couple of years, largely in part to the affordability of new scanners. "Recons," as they sometimes call themselves, are always trying to keep an edge over their competition, and now just having a scanner in the room at a meeting can impress their attorney clients (yea, the guys on daytime TV commercials between your soaps). In fact, it's getting to be the expectation that this technology is required, sometimes replacing more traditional tools like total stations or (gulp) the measuring wheel.

So, people are trying to break into the field using a laser scanner as their cap feather.

Of course, laser scanners are data collection tools. And it's not the tool but the operator who is expected to have the know-how and expertise to apply the technology to the application and produce something worthy of helping their client at trial. If you've already got scanning expertise and are looking to break into a new market, you can set yourself up to provide just laser-scanning services and team with Recons in your area, or if you're serious about providing accident reconstruction services, then consider specialized training before diving in.

Here are just few ways Recons are using scanning, specifically for vehicular accidents:

**Vehicle and Scene documentation and preservation**: The vehicle may be sitting in an insurance lot or police impound or tow yard and the weather and elements are doing their thing. The vehicle may be moved and altered, or the accident scene could change (repaving, or clearing trees or damaged power poles) in the time the case is being decided. Just in the same way scanners are preserving evidence in CSI applications, scanning can prove helpful in preserving accident scenes and totaled cars, as well (I've put together a full white paper on this, if you're interested). You can pull dimensions and cut sections right in your basic point-cloud processing software, or use any number of third-party software applications specifically made for this task.

A conversion like the following can be very helpful in the accident scene reconstruction business:

(Real photo image of my old car, image courtesy of Cortes Towing Service, Longwood, FL)

(Scan 3D view image in FARO Scene 5.0 image courtesy of Atlantic Laser Scanning Services)

The end product can even be as simple as a viewer to be shown in court, similar to Google Street View making it simple to visualize the environment. Many scanning manufactures offer this utility or you can use a panoramic viewer if you export the scan images, like this one.

(FARO Scene Webshare, free online viewer www.farowebshare.com image courtesy of Dustin Productions, LLC)

**Diagramming and visual exhibits for trial**: These end products can vary greatly to be as simple as a two-dimensional CAD drawing representing the scene in Plan view (overhead) or go crazy with a full-blown 3D animated reconstruction like those done by David Dustin:

http://wordp.dustinproductions.com/animation-examples/

**Scientific Analysis and Inspection**: Some of the more fancy deliverables some companies are offering include inspection of the damaged vehicles as compared to an exemplar vehicle. This can be done by simply scanning the wrecked car and the same model of an undamaged car to represent the “normal” (slip a 20-spot to your local CarMax rep). Overlay the two scans using a CAD-to-part algorithm common in applications like Geomagic. The end result is every ripple or crunch highlighted in a cool color graph or whisker plot to show quantitatively how much damage the vehicle endured. This information is then used in conjunction with crash test data to make a statement about how much force was required to result in that type of damage. Even if you slept through physics class in college (not your beloved author of course) you’d know force equals mass x acceleration … compare that with testimony and now you have some science your attorney is just foaming at the mouth for.

(Example of a CAD-to-part inspection of a wrecked vehicle)

# Original article visuals

Accident Reconstruction – Full speed ahead



Image 1 of 4 · Open archived original

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Image 2 of 4 · Open archived original

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Image 3 of 4 · Open archived original
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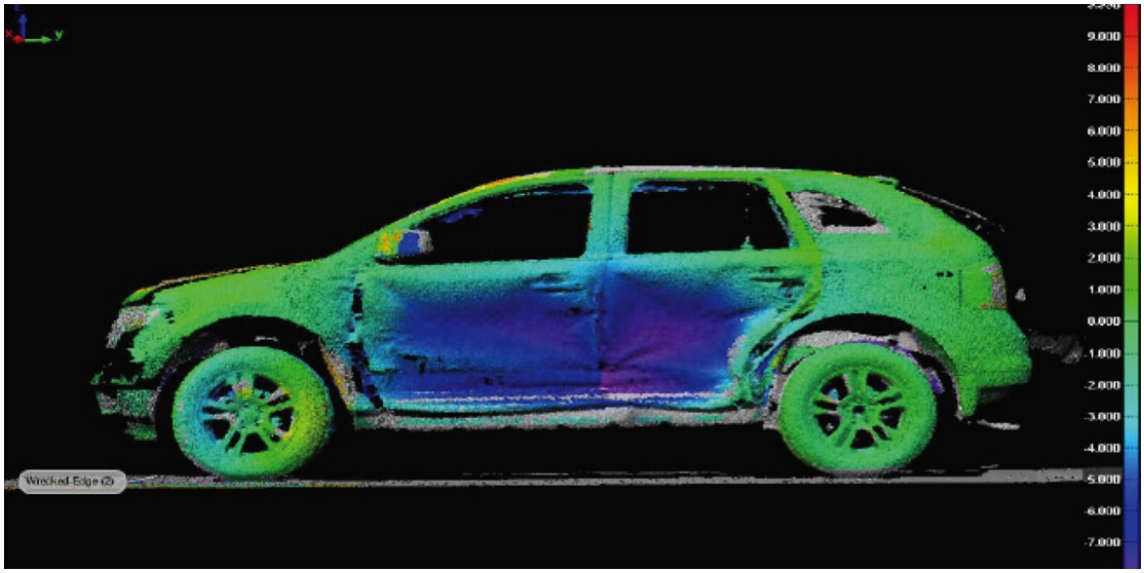



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