

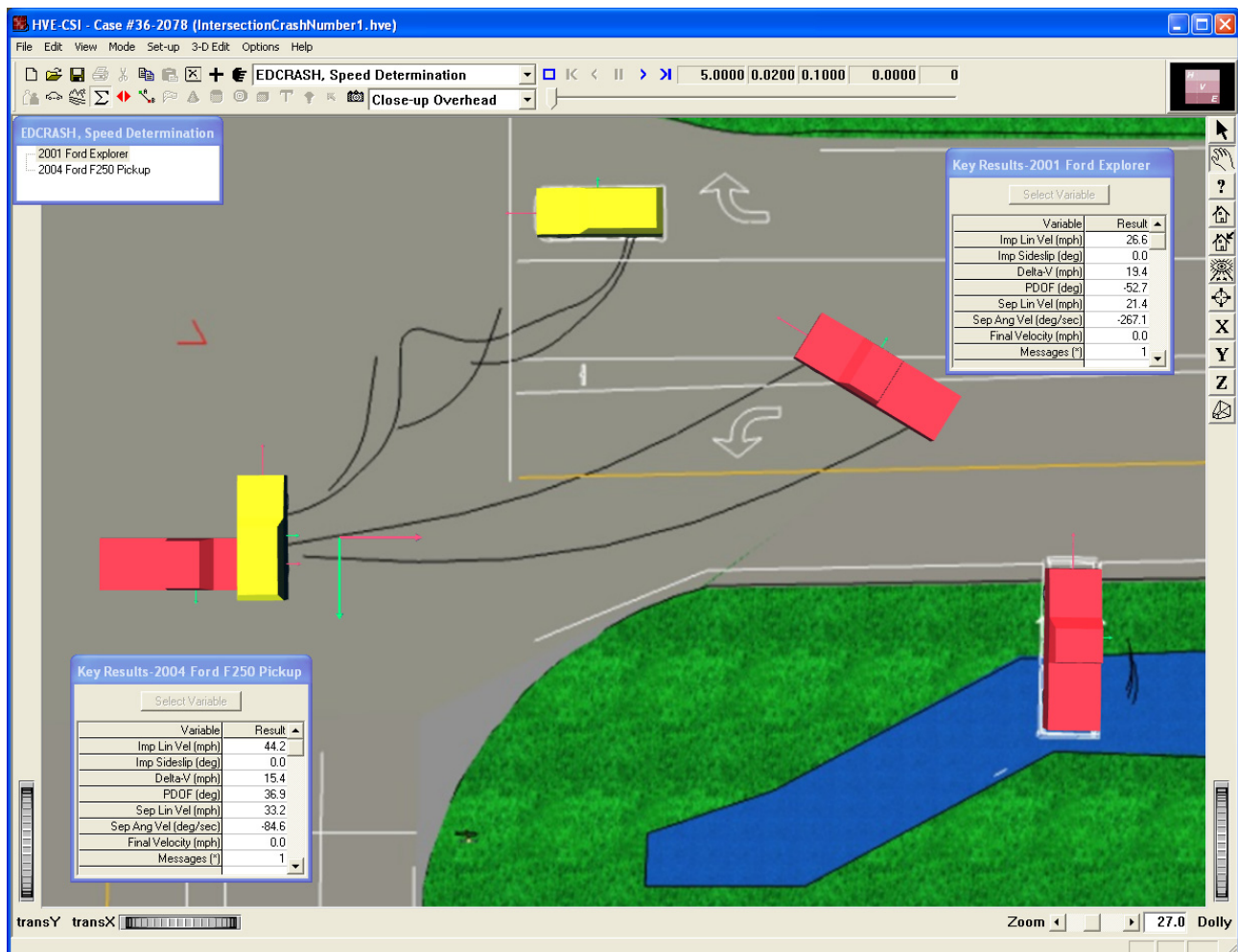
# HVE-CSI™

Human-Vehicle-Environment – Crash Site Investigator



## Crash Reconstruction Software for Law Enforcement

*HVE-CSI* is a unique version of Engineering Dynamics Corporation's *HVE* highway safety research software that focuses directly on the needs of the law enforcement crash reconstructionist. *HVE-CSI* provides the basic reconstruction and simulation capabilities used to investigate a crash by including two well known reconstruction software tools, *EDCRASH* and *EDSMAC*. These tools have been extensively validated, and results have been presented and accepted in courts worldwide for over 20 years.



This screenshot is from a reconstruction in *HVE-CSI* using *EDCRASH* to calculate impact speeds and the delta-V of an intersection crash between an SUV and a pickup. The impact and final rest positions of the vehicles have been input, along with drag at each wheel. Increases in tire friction due to tire blow-out and damage to the axles of the target vehicle have been included.

# HVE-CSI • Crash Reconstruction Software for Law Enforcement

Following inspections of the vehicles and crash site, *HVE-CSI* is used to reconstruct the crash. Users quickly create vehicles and a scaled environment from an aerial photo, crash site drawing or other source. *EDCRASH* and *EDSMAC* are then used to identify the severity and possible causes of the crash, such as excessive speed, loss-of-control or failure to obey traffic control devices. *HVE-CSI* creates extensive reports and simulation movies, allowing the reconstructionist to quickly complete an analysis, document their work and move to the next case.

*HVE-CSI* has the following components:

- **Vehicle Editor** – Users create and quickly modify a generic vehicle to match their actual vehicles. The Vehicle Wizard provides an excellent template for quickly assigning vehicle dimensions, weights and weight distribution. Additionally, the user can click on icons on the vehicle to change the color, crush stiffness values and tire friction and cornering properties.
- **Environment Editor** – Aerial photos, crash site drawings and Google Earth maps are used as environment models. The user enters the dimensions of their scene and *HVE-CSI* automatically builds a scaled surface with their selected image. It's that easy!
- **Event Editor** – Users set up their *EDCRASH* and *EDSMAC* runs by entering positions, velocities, driver controls and crush damage measurements. Efficiency tools, such as the Distance Tool, allow the user to quickly determine distances between vehicles, skidmarks, tire-tracks and other important reference points. Results of *EDCRASH* and *EDSMAC* calculations are displayed in the main viewer. Numeric results are presented in Key Results windows. The Event Controller allows the user to change inputs, reset the event, and quickly analyze alternative scenarios.
- **Playback Editor** – Output reports documenting the user's work are available in the Playback Editor in several formats, including text reports, variable output spreadsheets and graphical vehicle trajectory and damage profiles. AVI format video can also be produced directly from the Playback Window, providing movies of simulations that are easily incorporated into presentations.

When questions arise during their work, *HVE-CSI* users can access detailed User's Manuals directly within their installation. On-line assistance is also available via the "How Do I?... " link found on the EDC website. *HVE-CSI* users looking to further their skills can attend regularly scheduled EDC training courses or contact an *HVE* Training Partner for introductory and customized training courses.

*HVE-CSI's* ease-of-use and extremely affordable price mean the entire crash reconstruction team will be able to use the program, rather than limiting it to only a single team member. For more information about product capabilities, training or to request a demonstration of *HVE-CSI*, contact EDC Sales at 503.644.4500 or [sales@edccorp.com](mailto:sales@edccorp.com).

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