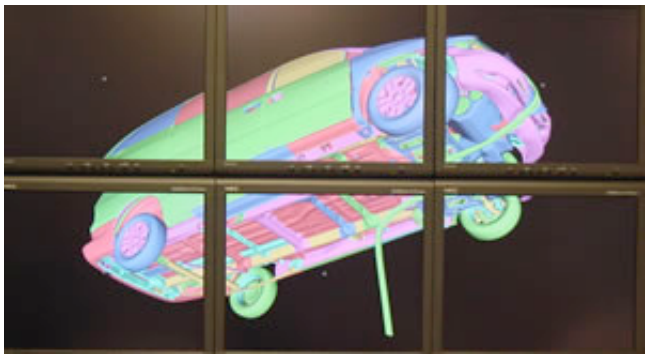
CEI's EnVideo 2 Speeds Animation Playback;
Offers New Graphics Support, VR Functionality

*APEX, N.C., August 27, 2003* - CEI has released a new EnVideo 2 animation player that offers push-button controls, multi-threading support for faster playback, compatibility with standardized graphics formats, and improved VR functionality.



*Dodge Caravan crash animation on a multi-tile display.*

EnVideo 2, available for free downloading on this web site, enables users of EnSight and EnSight Gold visualization software to transform complex animations into movies that can be displayed on a desktop or laptop system. It is the first new tool based on CEI's Visualization Framework (CVF), which incorporates parallel I/O, processing and rendering to increase performance.

Intuitive Controls; Faster, Smoother Playback

EnVideo 2 provides push-button controls that give users an easy way to loop, cycle, change playback speeds, and play animations in forward or reverse.

Multi-threading in EnVideo 2 enables users to take advantage of multiple CPUs for faster animation playback. Playback is also accelerated by optional image caching in EnVideo 2. *(See the appendix for parallel streaming test results.)*

Standard Format Support

EnVideo 2 supports standardized graphics formats in addition to the high-quality, compact evo files created in CEI's EnSight software. The latest version supports *bmp*, *jpg*, *png*, *ppm*, *sgi* and *tiff*. Future versions of EnVideo will support additional image formats, including *avi* and *mpeg*.

New VR Functionality

EnVideo 2 benefits from VR improvements included in EnSight 7.6, including multi-tile movie (MTM) support. Animations that will be played back on large displays - including a CAVE, RAVE, HIVE or other immersive environment - can be prepared and easily saved out of EnSight 7.6 for playback in EnVideo 2. EnVideo 2 also supports stereo displays.

Evo Library and EnVe

EnVideo 2 includes the *evo* library and EnVe. The *evo* library is an open-source application programming interface (API) that allows users to write *evo* files from their own software and view them with EnVideo. EnVe, the EnVideo editor, is a tool for "pasting" together multiple animation segments into a complete movie. The editor can be used either interactively or from command files. The *evo* library and EnVe are also available for free downloading on this web site.

CEI offers a complete suite of tools for engineering and scientific visualization, from meshing to plotting to

animations that can be run on the most advanced VR displays. The company has corporate headquarters in Apex, N.C., and authorized distributors around the world. In addition to software products, CEI provides consulting services to engineers and scientists from organizations that need to visualize computational results for research, product design or product refinement.

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*CEI Press contact: Amanda Baley, 919-363-0883*

APPENDIX -- Benchmark Results

CEI conducted tests to determine the speed of EnVideo 2 on single and multiple CPUs. The results below come from running 160-frame animations at different resolutions and formats on a 195Mhz SGI Onyx2 with IR3 graphics.

**1280x1024, 160 frames, jpeg**
1 CPU -- 49 sec
2 CPUs -- 25 sec
4 CPUs -- 13 sec
8 CPUs -- 8 sec

**1280x1024, 160 frames, rle**
1 CPU -- 15 sec
2 CPUs -- 8 sec
4 CPUs -- 8 sec
8 CPUs -- 8 sec

**2560x2048, 160 frames, jpeg**
1 CPU -- 198 sec
2 CPUs -- 101 sec
4 CPUs -- 53 sec
8 CPUs -- 37 sec

**2560x2048, 160 frames, rle**
1 CPU -- 69 sec
2 CPUs -- 40 sec
4 CPUs -- 38 sec
8 CPUs -- 40 sec