

# CORrelation and Analysis (CORA) in Visual-Environment

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## Abstract

*CORA (Correlation and Analysis) rating is a curve comparison technique, to evaluate the time-history signals. CORA requires at least two curves for comparison, the reference curve (test result) and the comparison curve (simulation). This method is mainly used in Injury Studies.*

***Visual-Environment (VE)** is the first brick of the environment for ESI Group's leading suite of software products. Visual-Environment provides one single environment that encompasses the complete workflow for realistic simulation based design. It covers all of the activities of a CAE engineer, starting from interfacing to CAD formats, CAD cleanup, meshing, assembling the model, model set-up and post-processing, using a single core extendable compute model. It further provides tools to automate the tasks through scripts, macros and processes. It is comprised of many applications dedicated to each task. The following sections detail the different applications. VE is a multi-model/multi-window/multi-application environment. The embedded data model offers a very versatile environment where new applications and interfaces can be easily implemented.*

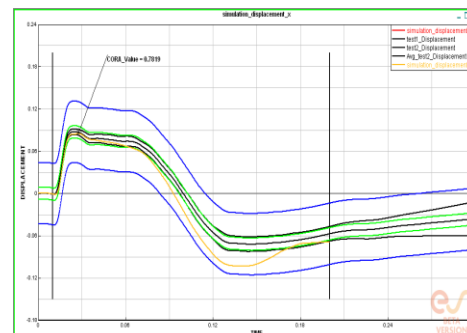
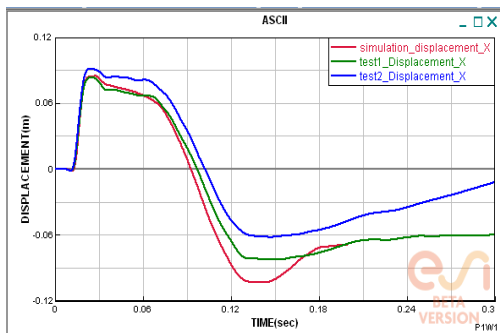
***Visual-Viewer** is a new-generation, post-processing tool with state-of-the-art plotting utilities. It caters to the requirements of the CAE community. Visual-Viewer is built on a multi-page / multi-plot environment, which enables you to group the data into pages and plots. It is designed with an intuitive and sleek user interface with a Windows look and feel. Complete sessions can be re-run without loss of any data. It is completely command driven and this enables you to execute commands with ease. With Visual-Viewer being a multi-page environment, you are allowed to create any number of pages and you can have up to 16 windows on a single page. These windows can be plot, animation, video, model or drawing block windows*

*Methods of possible CORA implementation in Visual-Environment*

*CORA computation for the selected curve*

**CORA Value.**

- *Displayed as a text attached to the selected curve.*
- *Displays only the overall CORA Rating for a curve*



**CORA Report**

- Displays the Corridor, Cross Correlation rating, Intervals limits.
- Report is generated in html format too

