

Session:

Strategies to post-process big datasets.

Antoine Ligier

Genias Graphics GmbH & Co KG

With the ever increasing size of simulation data, new visualization techniques are to be applied to cut down on the associated hardware costs and requirements. It has been shown that the disk-read data transfer rate is evolving more slowly than the size of the simulation data [1]. The time to load and visualize a data-set is hence constantly increasing.

Tecplot 360 EX leverages the Subzone Load-on-Demand (SZLoD) technology, which allows visualization of big datasets while cutting down on the amount of data to be read from disk. The memory requirements and time to picture are cut by orders of magnitude: it is now possible to load a one-billion points model on a laptop.

The presentation will describe the strategies to be used to plot and animate your CFD results exactly the way you want, analyze complex solutions, arrange multiple layouts, and communicate your results with professional images and animations.

You will learn:

- What is LoD technology, how it works and how to leverage it for your data
- How to benefit from SZLoD through an example dataset
- How to export a SZLoD-enabled file from within your in-house code

References

[1] Scott T. Imlay and Craig Mackey: *Improved Performance of Large Data Visualization using Sub-Zone Load-On-Demand*, Tecplot Inc., January 2013.

<http://download.tecplot.com/docs/ImprovedPerformanceofLargeDataVisualizationUsingSub-ZoneLoad-On-Demand.pdf>