Argonne NATIONAL LABORATORY

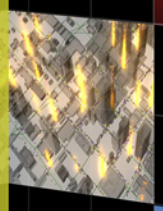
A USDOT-Funded High-Performance Computing Center

TRANSPORTATION RESEARCH AND ANALYSIS COMPUTING CENTER

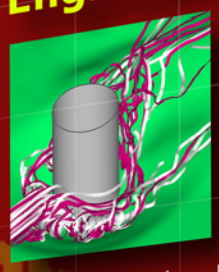
Allocations Available to Transportation Analysts

At Argonne National Laboratory's **Transportation Research and Analysis Computing Center,** experience an advanced, state-of-the-art, high-performance computing environment —

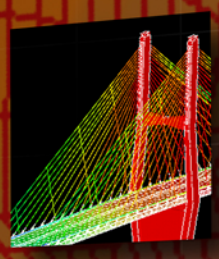
- Highly-skilled experts provide technical support in the use of TRACC's advanced engineering analysis software;
- Simulation-based design and analysis are done on state-of-the-art massively parallel computing system;
- Advanced scientific visualization allows researchers to explore data faster and at higher fidelity.



TRACC's Advanced Engineering Software



Computational Fluid Dynamics – the commercial codes STAR-CD and ANSYS Fluent are used for computational fluid dynamics in applications such as bridge hydraulics analysis, flow-induced vibration of bridge components, and vehicle aerodynamics.



Computational Structural Mechanics – the commercial code LS-DYNA® is used for computational structural mechanics applications, such as crashworthiness, roadside hardware evaluation, and bridge stability and dynamics analysis.

Traffic Modeling and Simulation – the USDOT-developed software system, TRANSIMS, is used for traffic modeling, including such applications as traffic simulation in metropolitan areas, evacuation planning and evaluation, and long-range regional planning.

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