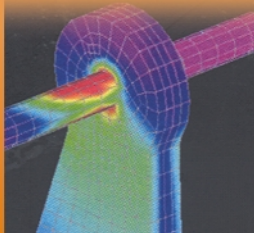


MECHANICAL/STRUCTURAL ANALYSIS

(DEFINITION)

The separation of an intellectual or material whole into its constituent parts for individual study. A branch of mathematics principally involving differential and integral calculus, sequences and series, and concerned with limits and convergence. The method of proof in which a known truth is sought as a consequence of a series of deductions from that which is to be proved.



ANALYSIS

Bastion generates and applies models, simulations and other analytical tools to support product synthesis, trades and definition. Our analysis capability includes producing complete and accurate controls and dynamic assessments, identifying and quantifying risks, and providing recommended controls and abatement measures.

- Structural Analysis
- Thermal Analysis
- Fluid Dynamics
- Stability Control
- Coupled Loads Analysis
- Material & Geometric (Non-linear Behaviors)

Bastion's experienced, skilled engineering staff performs classical stress analyses, finite element analyses and interaction analyses. Our major strengths lie in preparing computational models for fracture mechanics and fatigue analysis. We also conduct model correlation of static/dynamic loads test data and develop multi-body (rigid and flexible dynamics) models of robotic systems operations and large-scale structure. Dynamic Analysis includes Transient and Frequency analysis. Additionally, our engineers perform verification and readiness of control software.

TOOLS

- | | | |
|-----------|------------|-------------|
| ■ NASTRAN | ■ SACS | ■ MECHANICA |
| ■ ALGOR | ■ MATLAB | ■ STAAD Pro |
| ■ STRUCAD | ■ FEMAP | ■ ANSYS |
| ■ I-DEAS | ■ SIMULINK | |





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