

Structural Model Tuning Capability in an Object-Oriented Multidisciplinary Design, Analysis, and Optimization Tool

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BiblioGov. Paperback. Book Condition: New. This item is printed on demand. Paperback. 26 pages. Dimensions: 9.7in. x 7.4in. x 0.1in.Updating the finite element model using measured data is a challenging problem in the area of structural dynamics. The model updating process requires not only satisfactory correlations between analytical and experimental results, but also the retention of dynamic properties of structures. Accurate rigid body dynamics are important for flight control system design and aeroelastic trim analysis. Minimizing the difference between analytical and experimental results is a type of optimization problem. In this research, a multidisciplinary design, analysis, and optimization (MDAO) tool is introduced to optimize the objective function and constraints such that the mass properties, the natural frequencies, and the mode shapes are matched to the target data as well as the mass matrix being orthogonalized. This item ships from La Vergne, TN. Paperback.



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