

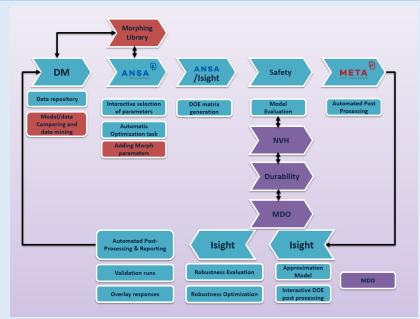
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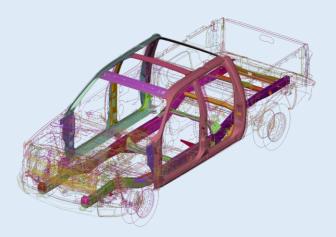


### Active DOE Automation – Reduces 85% of DOE Setup time

BETA CAE Systems USA is introducing a new DOE Process and Automation Tool for multidisciplinary design optimization, stochastic and robustness analysis. It reduces the setup time of optimization and robustness study using DOE by at least 85%. The *Active DOE* Process and Automation tool will help engineers to enhance their current robust design work-flow using GUI driven automated process. In addition to increase in productivity, this user friendly GUI driven plug-in inside ANSA allows users to follow a standardized procedure and avoid errors at various stages of design.

#### Active DOE Automation functions completely within ANSA.





## Automated Functionalities

- Automated DOE Matrix generation
- Morphing library for shape optimization
- Approximation model building
- Robustness assessment
- Multi-disciplinary optimization
- Automated results post-processing
- User defined decision making
- Creating and submitting evaluation runs from optimizer
- Overlay responses for generated designs

#### **BETA CAE Systems USA**

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Project File: ple\onkar\Conferences\DOE_TEST V 🖿 🔯 LOAD				
Name	Status	Action		
Task Gen		GEN		
Loadcases		<choose> 🔻</choose>		
DOE Gen		<choose> 🔻</choose>		
File Gen		WRITE		
Responses		DEF		
Job Sub		SUBMIT		
Job Status		CHECK		
DOE Results		APPEND		
Overlay		<choose> 🔻</choose>		
Optimization		<choose> 🔻</choose>		
Validation		RUN		
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## **Advanced Features**

- Interactive selection of parts for design parameters
- Creation of design parameters from .csv file
- Automated generation of thickness range using GUI or manufacturing data sheets
- Discrete parameters generation for materials
- Automatic optimization task generation
- Automated load case setup selection

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# Post processing functionalities

- Templates driven post processing
- Automated response surface generation
- Automated report generation
- Statistical analysis tools
- Validation of optimal designs

## **Benefits of Active DOE Automation Tool**

- Reduces 85% of DOE Setup time
- ANSA model as a single source of truth (Common Model)
- Eliminates human error because the process guides the user and doesn't allow the mistakes to happen
- Users can easily manage big projects as the entire process is standardized with the help of a Automated GUI
- Communication between various software is automated using established virtual hand shakes
- No Optimizer GUI to learn
- No knowledge of Optimization and Monte Carlo problem formulation is required
- Dynamics status colour coding for each function

For More Information please contact: BETA CAE Systems USA Email: <u>sales@ansa-usa.com</u>

**Locations:** Detroit, Michigan Chennai, India

#### **BETA CAE Systems USA**