

Real-time design performance  
with AI powered modeling

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# Foster Design Innovation

## Scan Simulation Data

### Input & Output file Parsers

Scan and Import simulation data from the most widely used CAD/CAE tools

### Input & Output Variables Selection

Select among scalar, field and time dependent variables for your study

## Create AI Surrogate Models

### Model Training

Use the selected training dataset and the variables definition to train a new model

### Model Building

Build the model based on the selected data with our AI-based modeling algorithms

### Model Validation

Evaluate the quality of the new model based on relevant metrics

## Predict & Evaluate Design Performance

### Result Prediction

Gain insights on how design parameters affect the performance

### Visualization

Interact with the 3D rendered results, explore different designs and refine your ideas

## Capitalize knowledge

### Output File Unparsers

Export results to native CAD/CAE tools file format

### Standardized model format

Export and reuse the surrogate model in a standard industry format

### Recycle design knowledge

Perform design optimization studies using nvision model in an Optimus workflow

nvision is an **open, solver-agnostic, and data-based modelling tool** that enables simulation engineers, designers, and product owners to **reduce design time**. nvision leverages existing knowledge from simulation data and performs **real-time what-if analysis** to speed up product development while saving time and resources.

Save time Unveil trustworthy design insights Capture & share knowledge  
 Leverage knowledge from existing simulation database  
**Real-time design**  
 Spontaneous data-driven  
**performance**  
 Push design boundaries Easy access to simulation data  
**Reduce Complexity**

## Enable shorter design cycles



Large, high-fidelity nonlinear models can take hours or even days to simulate. System analysis and design can require numerous simulations, presenting a significant computational challenge.

## Innovate & Push your design boundaries



Many complex R&D projects require experience with various CAE tools. Often this is blocking product teams and slows down innovation.

## Recycle Organization's Knowledge



Existing simulation results from previous design cycles contain significant knowledge that is often not leveraged for future innovative designs. It slows down the teams' efficiency and creates repetitive tasks.



# noesis

a Cybernet Group Company

Established in 2003, Noesis Solutions, a trusted digital engineering innovation partner, has empowered customers adopt a transformational strategy that resolves their toughest multi-disciplinary engineering challenges of today. Our continuously evolving product portfolio, state-of-the-art technology, and unmatched customer services enable customers transform the way they build their products in a much faster and an efficient manner.

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