# Endurica EIE

### FAST LOADS PROCESSING

Endurica EIE<sup>™</sup> is the fast way to go from lengthy multi-channel load signals to fatigue life prediction. Use EIE with either CL or DT to simulate the full experience of your part in service.

### **BENEFITS**

- Simulate durability impacts of full-length loading signals. Achieve real-time load processing speeds for
- Speed up strain history generation by orders of magnitude, compared to direct FEA solution.
- digital twin applications.

## **FEATURES**

- EIE makes it easy to map nonlinear load spaces having up to 6 independent channels (channel can be load, displacement, rotation, etc.). User has full control over map discretization.
- ElE's pathfinder feature automatically generates boundary condition commands to drive your finite element model(s) through motions required to map grid points.
- EIE's channel reduction feature optimizes efficiency for map generation and interpolation.

- EIE interpolates multichannel input signals in .rsp and .csv formats via the map to rapidly generate strain history for your finite element model.
- EIE offers multi-threading and binary I/O for unprecedented execution speed.
- EIE produces strain history ready for analysis with CL. DT. and fe-safe/Rubber™.



Get Durability Right®

## **TECHNICAL NOTES**

1) Define the input channels



3) Solve for strain history



2) Populate the

nonlinear

X-displacement (mm)



4) Solve fatigue life

## **C-SUITE INSIGHTS**

#### MAKE THE MOST OF YOUR FEA LICENSE

Free up your finite element solver license. With EIE, FE solve time is reduced by orders of magnitude! What once took days is now completed in minutes.

#### MORE REALISM

Get closer to your customer's true use cases - Model full road load histories.

#### **MORE LOAD CASES**

EIE's high efficiency lets you look at ALL of your customer's use cases.

#### **BREAK THE ANALYSIS PARALYSIS**

Don't get stuck on convergence issues. EIE's flexible load space mapping methods get you out of 'convergence jail'.

#### Endurica LLC

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### THE ENDURICA DIFFERENCE

Learn more at: <u>www.endurica.com/fatigue-solver-software/endurica-eie</u> Call today to request a trial: **+1.419.957.0543** 



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