Seal Design CAE Tool “NewtonSuite-eSeal”

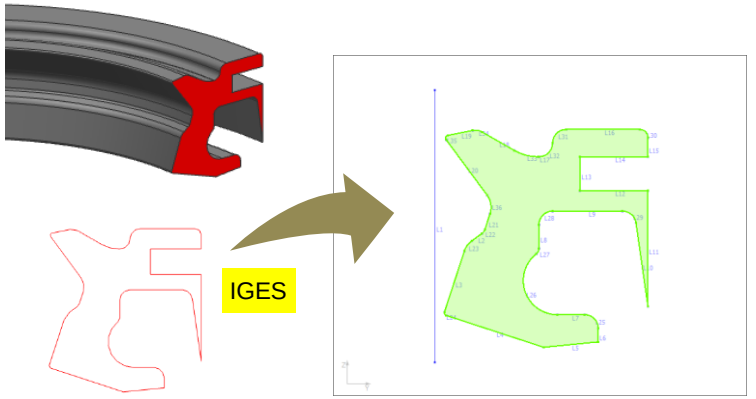
- Overview -

NewtonSuite-eSeal makes simulation as smooth to evaluate and design as a calculator.
It enables simple simulation for complex non-linear analysis involving contact, large deformations, and rubber, even for those who are not specialized in these analysis, and provides quick feedback.

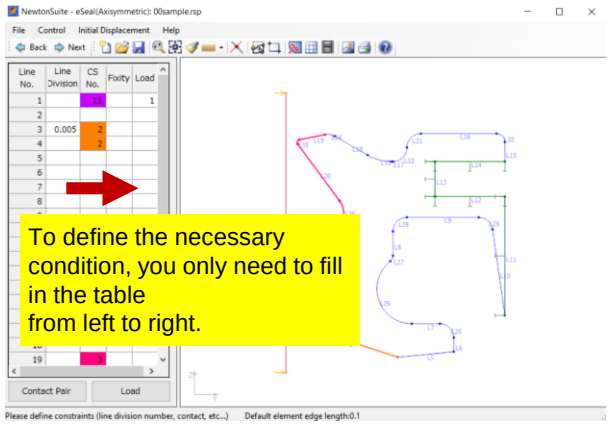
- Smooth simulation -

You can easily create the simulation in three steps

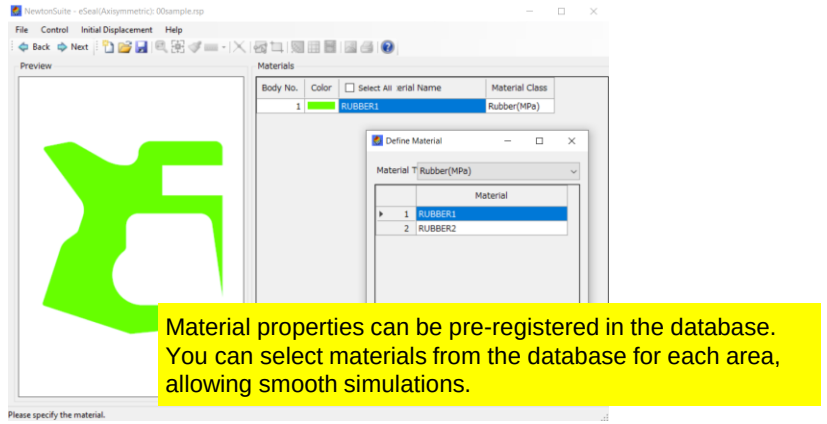
1. Specifying the analysis area
2. Defining conditions
3. Selecting materials



1.Specifying the analysis area



2.Defining conditions



3.Selecting materials

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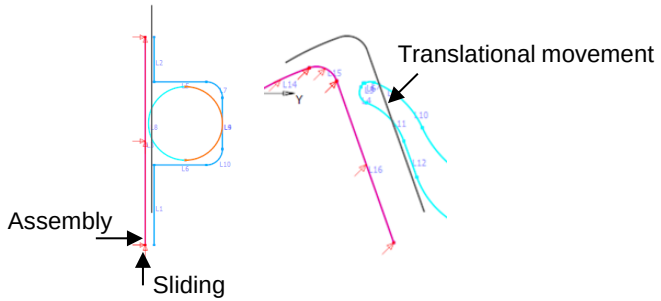
- Functions for seal simulations -

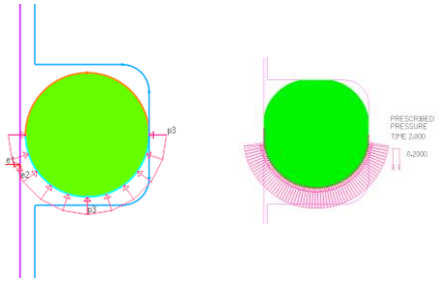
● Displaying via animation

- Represent the assembly process and operating conditions by increasing the load gradually.
- Enables you to confirm the conditions set before the analysis By displaying the load amounts.



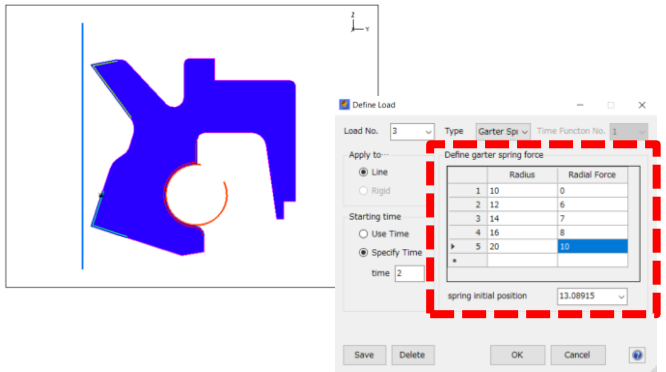
● Pressure condition

- Whether or not to apply pressure to the contact areas can be selected.
- Intuitively specify the area where pressure is expected to act.



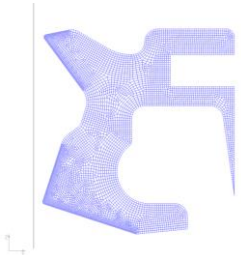
● Garter spring force

- Define the spring tension to ensure that the jacket part of the seal adheres closely to the mating surface, providing effective sealing.



● Auto meshing

- Automatically generates mesh suitable for the analysis of rubber seals.
- Allows specification of element length by default or by region.



● Detach/merge at body boundary

- Manage either adhesion or contact at the body boundary where multiple kind of materials meet.
- Set the coefficient of friction for each pair of contacting surfaces.

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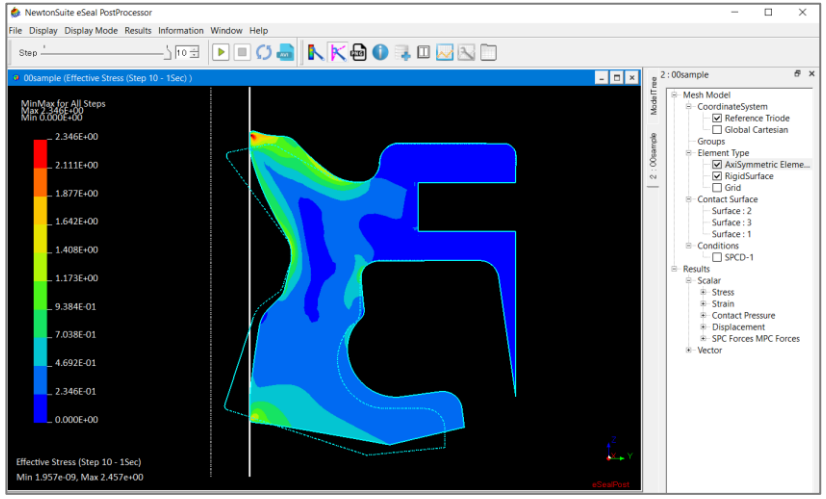
- Visualizing results with simple operations -

- **With the post tool**

  Effortlessly view results like deformed shapes, animation displays, contour views, and graph views with just a few clicks.



- **Viewing the results**

  Easily compare results from two different designs by showing them side by side.