Spacecraft Assembly - Pre-Analysis & Start-Up

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Problem Specification

- 1. Pre-Analysis & Start-Up
- 2. Geometry
- 3. Mesh
- 4. Physics Setup
- 5. Numerical Solution
- 6. Numerical Results
- 7. Verification & Validation

Exercises

Comments

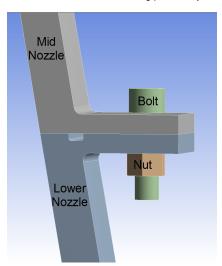
Pre-Analysis & Start-Up

In the Pre-Analysis step, we'll first consider how to reduce the model using periodicity. Then, we'll review the following:

- Mathematical model
- Numerical solution strategy
- Hand-calculations of expected results

Model Reduction

We'll model half-a-bolt assuming periodic symmetry. The reduced model has four parts which are indicated in different colors in the image below.



Mathematical Model



Under Construction

Numerical Solution Procedure in ANSYS



Under Construction

Hand-Calculations of Expected Results



Under Construction

Go to Step 2: Geometry

Go to all ANSYS Learning Modules