



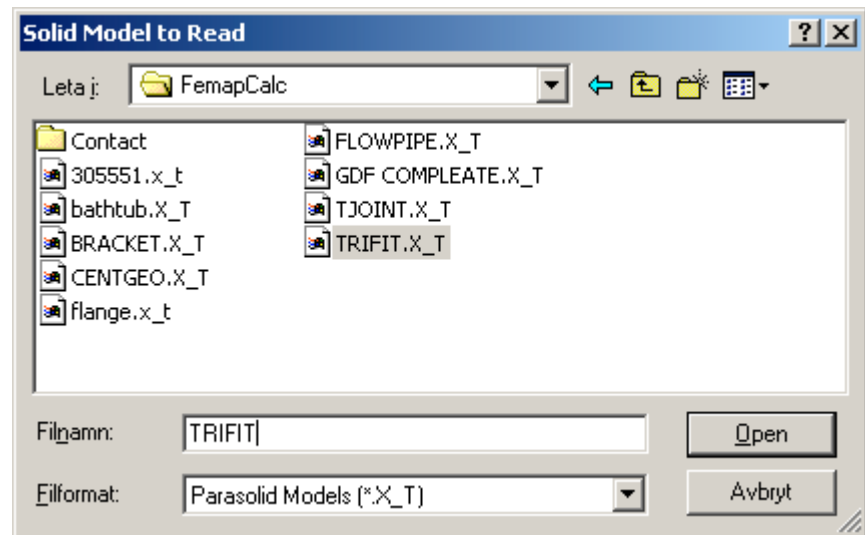
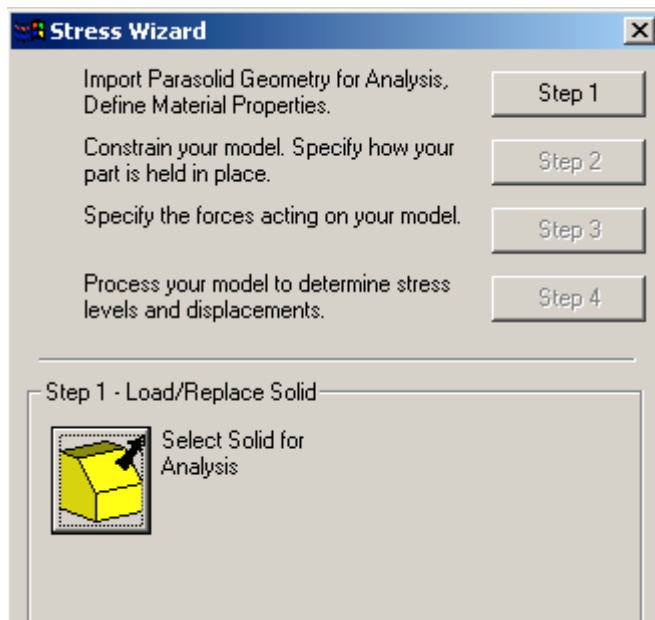
Stress Wizard

FEA Modeler Stress Wizard

- **Simple way of analysis setup**
 - Can be launched from **Tools - Stress Wizard**
 - For users doing structural **static** stress analyses
 - Simple, **easy** to follow, **four**-step process of
 - **importing** solid geometry
 - applying **constraints**,
 - applying **loads**
 - performing **analysis**

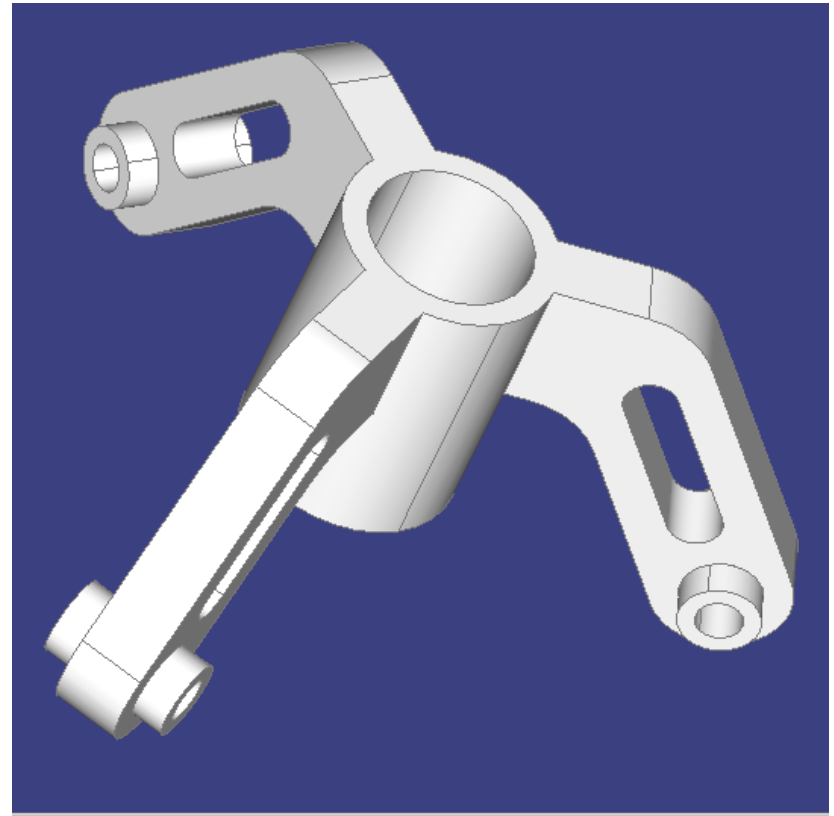
FEA Modeler Stress Wizard

- **Step 1**
 - **Importing solid geometry**



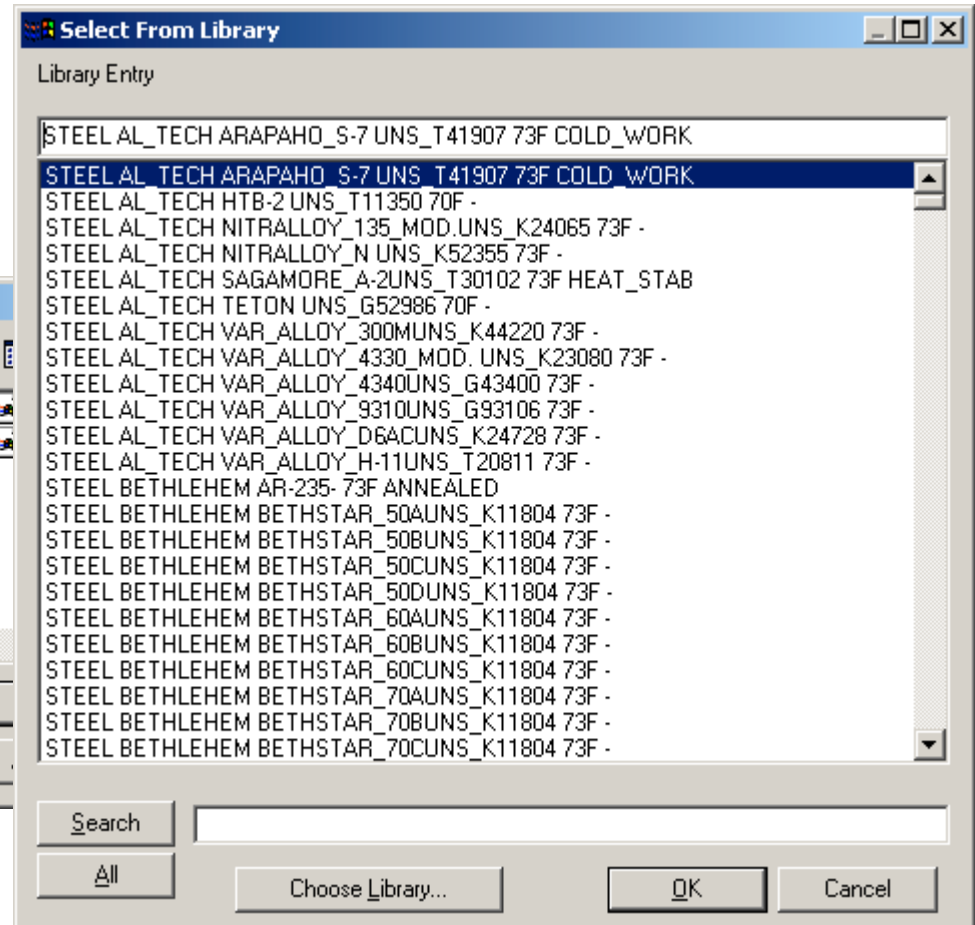
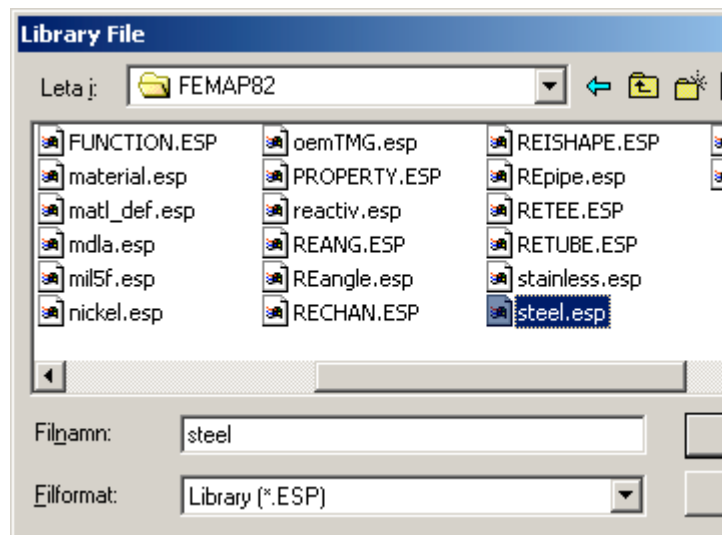
FEA Modeler Stress Wizard

- **Step 1**
 - **Review** imported geometry



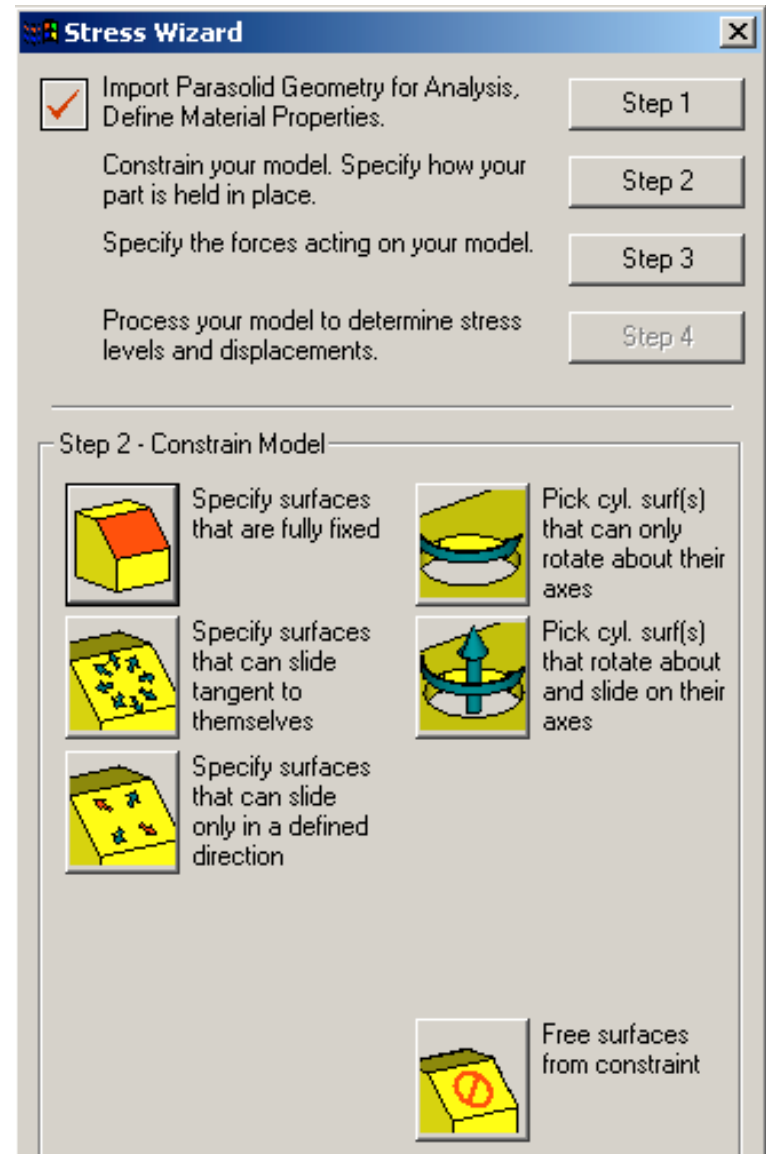
FEA Modeler Stress Wizard

- **Step 1**
 - Choose material



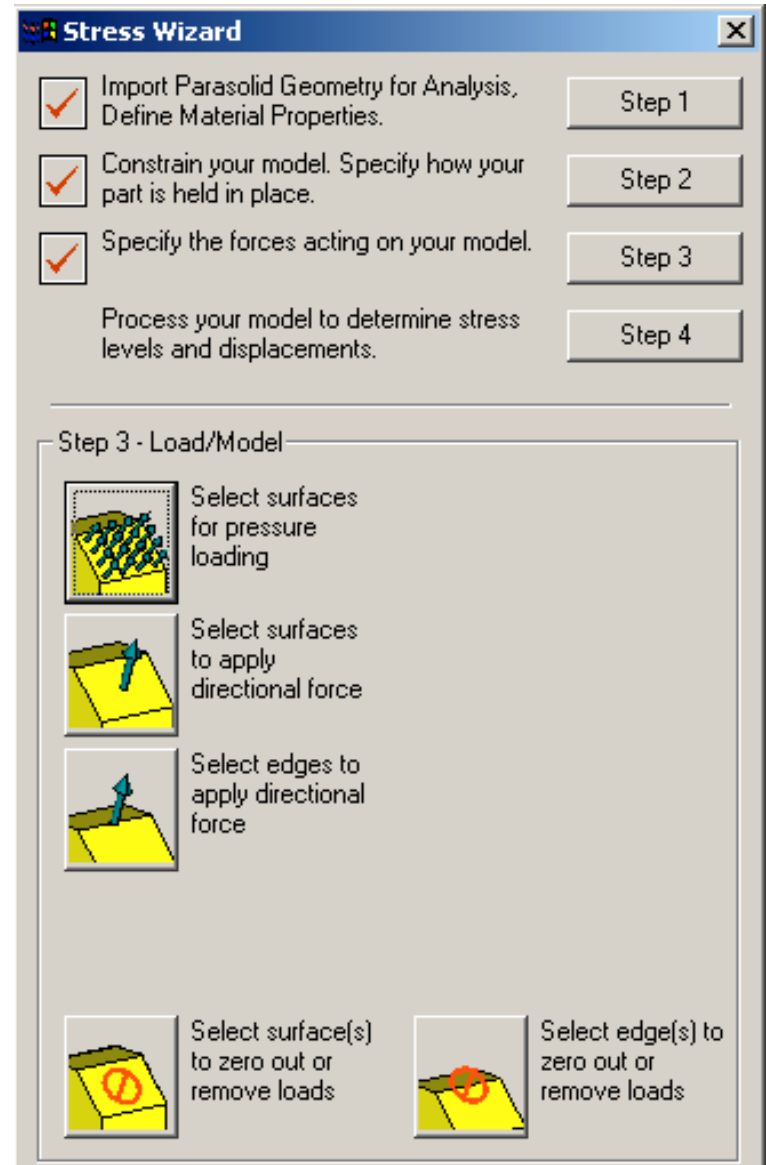
FEA Modeler Stress Wizard

- **Step 2**
 - **Constrain Model**
 - Specify or pick **fixed** or **free** surfaces



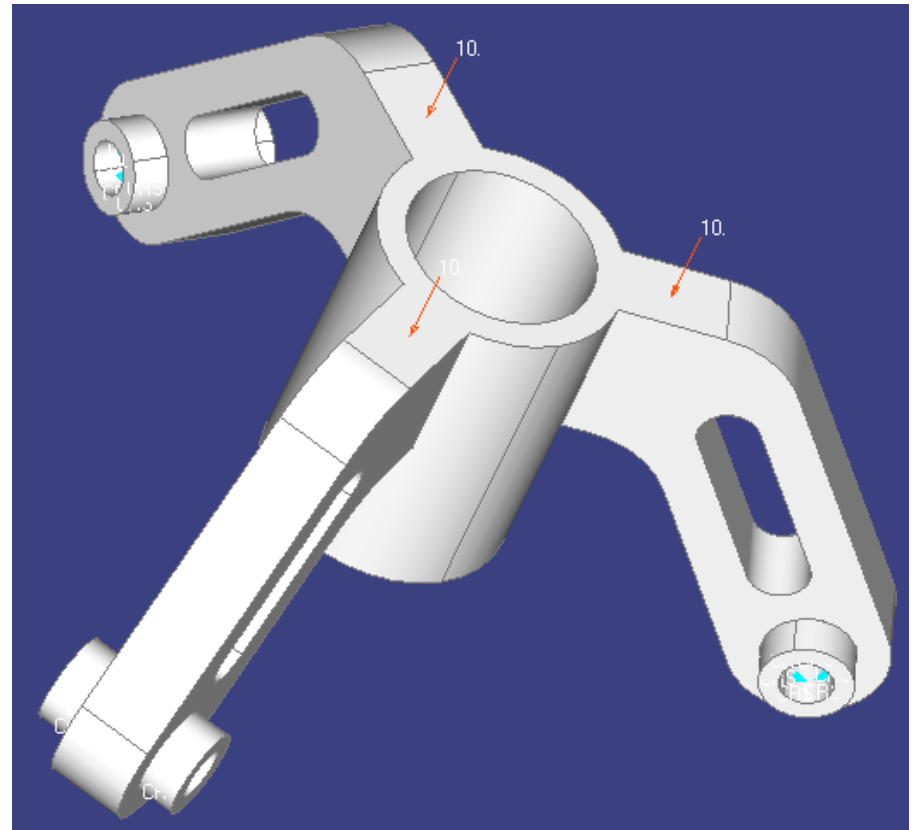
FEA Modeler Stress Wizard

- **Step 3**
 - Specify **Model Loads**
 - Specify or pick surface loads



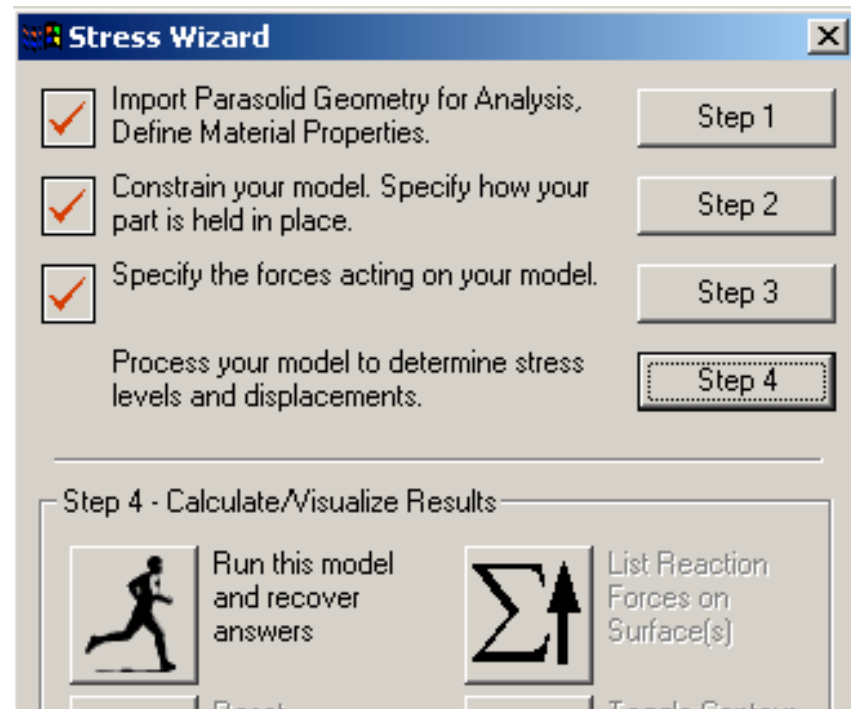
FEA Modeler Stress Wizard

- **Step 3**
 - Check **Model Loads and Constraints**



FEA Modeler Stress Wizard

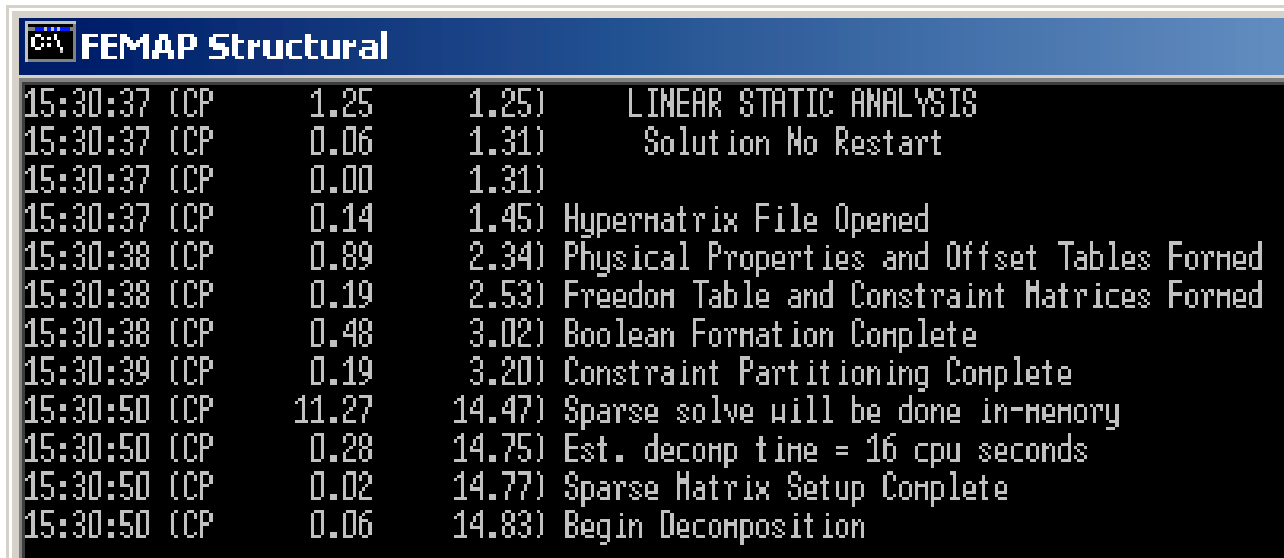
- **Step 4**
 - **Calculate** model stresses and displacements



FEMAP

Stress Wizard

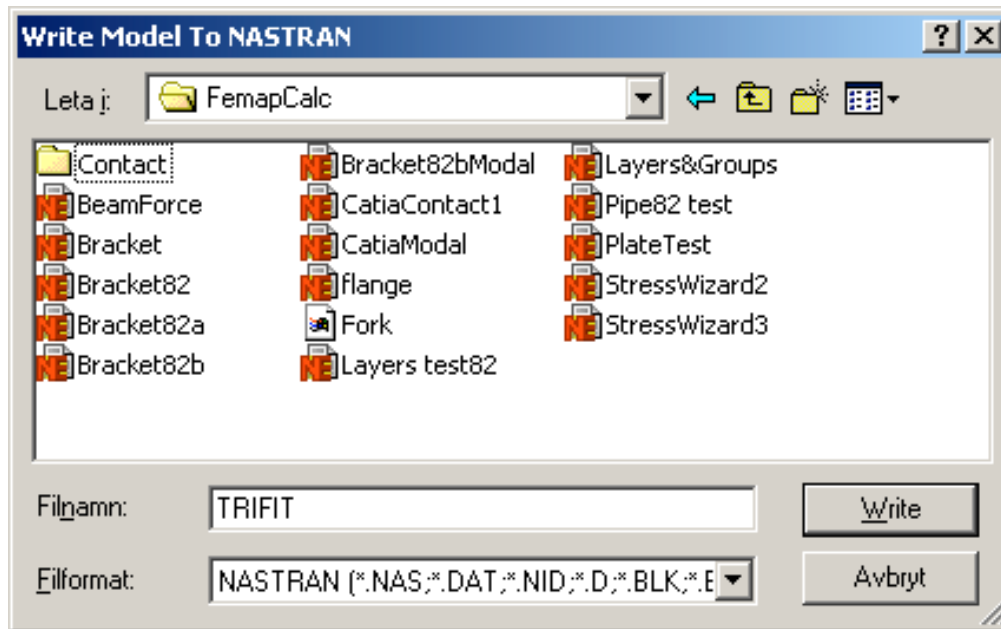
- **Step 4**
 - Performing **analysis** by FEMAP **Structural**



```
FEMAP Structural
15:30:37 (CP 1.25 1.25) LINEAR STATIC ANALYSIS
15:30:37 (CP 0.06 1.31) Solution No Restart
15:30:37 (CP 0.00 1.31)
15:30:37 (CP 0.14 1.45) Hypermatrix File Opened
15:30:38 (CP 0.89 2.34) Physical Properties and Offset Tables Formed
15:30:38 (CP 0.19 2.53) Freedom Table and Constraint Matrices Formed
15:30:38 (CP 0.48 3.02) Boolean Formation Complete
15:30:39 (CP 0.19 3.20) Constraint Partitioning Complete
15:30:50 (CP 11.27 14.47) Sparse solve will be done in-memory
15:30:50 (CP 0.28 14.75) Est. decomp time = 16 cpu seconds
15:30:50 (CP 0.02 14.77) Sparse Matrix Setup Complete
15:30:50 (CP 0.06 14.83) Begin Decomposition
```

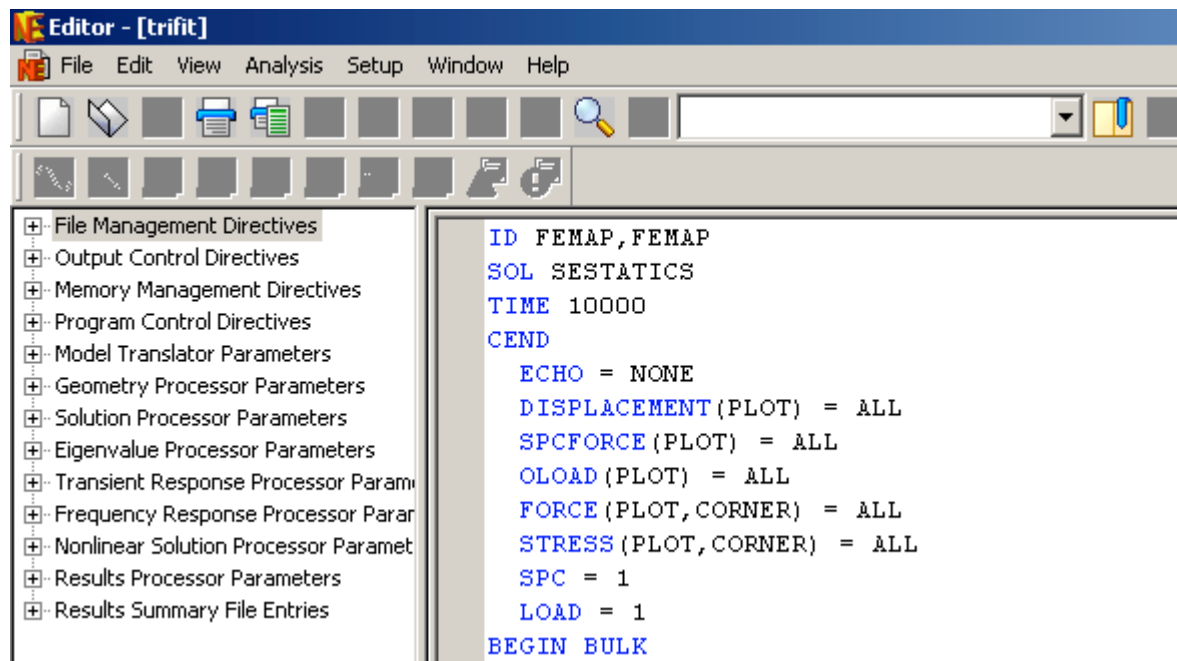
NE/Nastran Stress Wizard

- **Step 4**
 - Performing **analysis** by **NE/Nastran Engine**



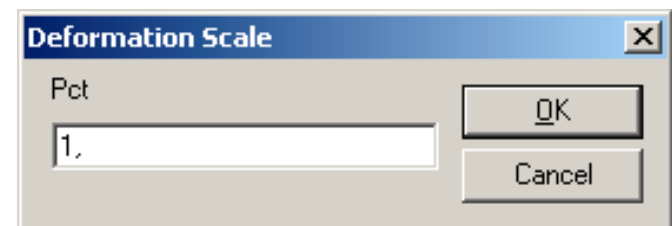
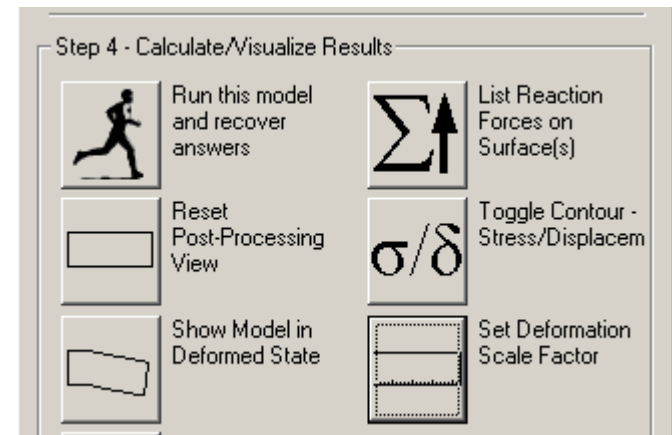
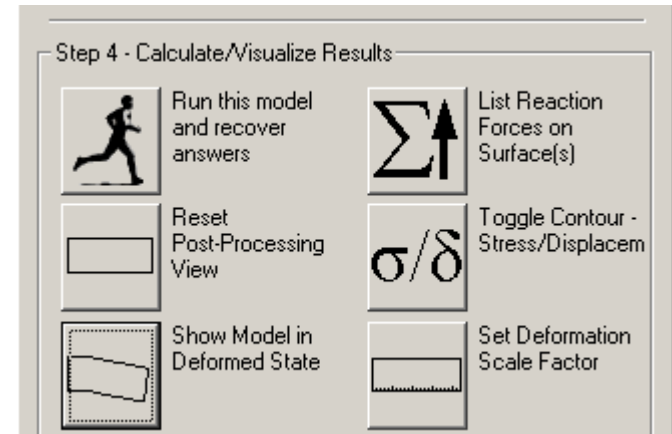
NE/Nastran Stress Wizard

- **Step 4**
 - Performing **analysis** by NE/Nastran Engine



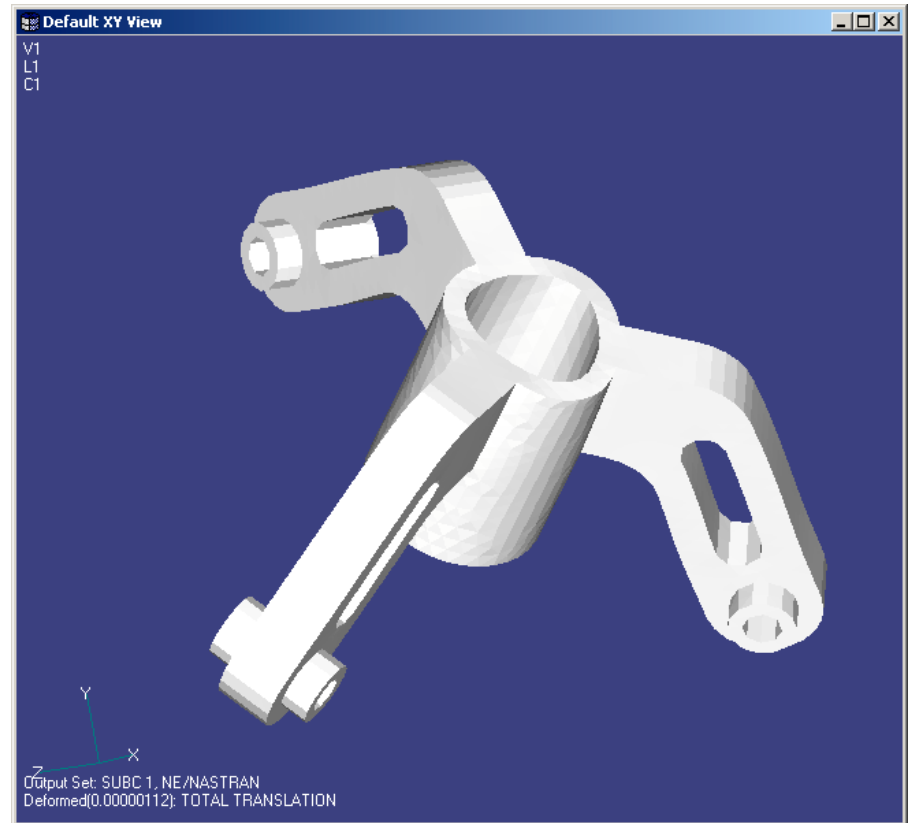
FEA Modeler Stress Wizard

- **Step 4**
 - **Results Visualization**
 - Show Model in **Deformed Style**
 - Set Deformation **Scale Factor**



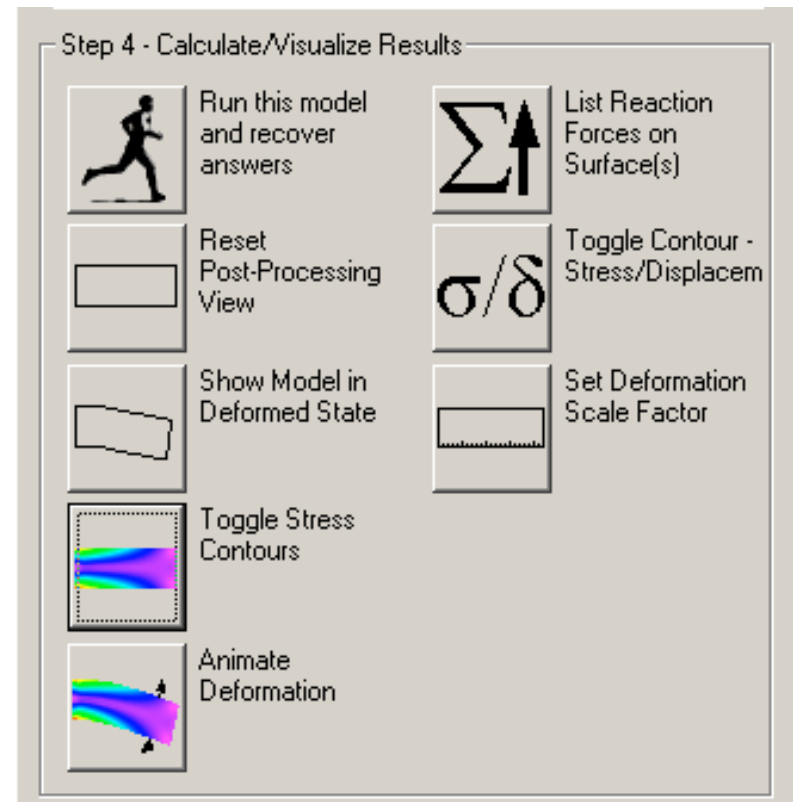
FEA Modeler Stress Wizard

- **Step 4**
 - **Review** model deformed style



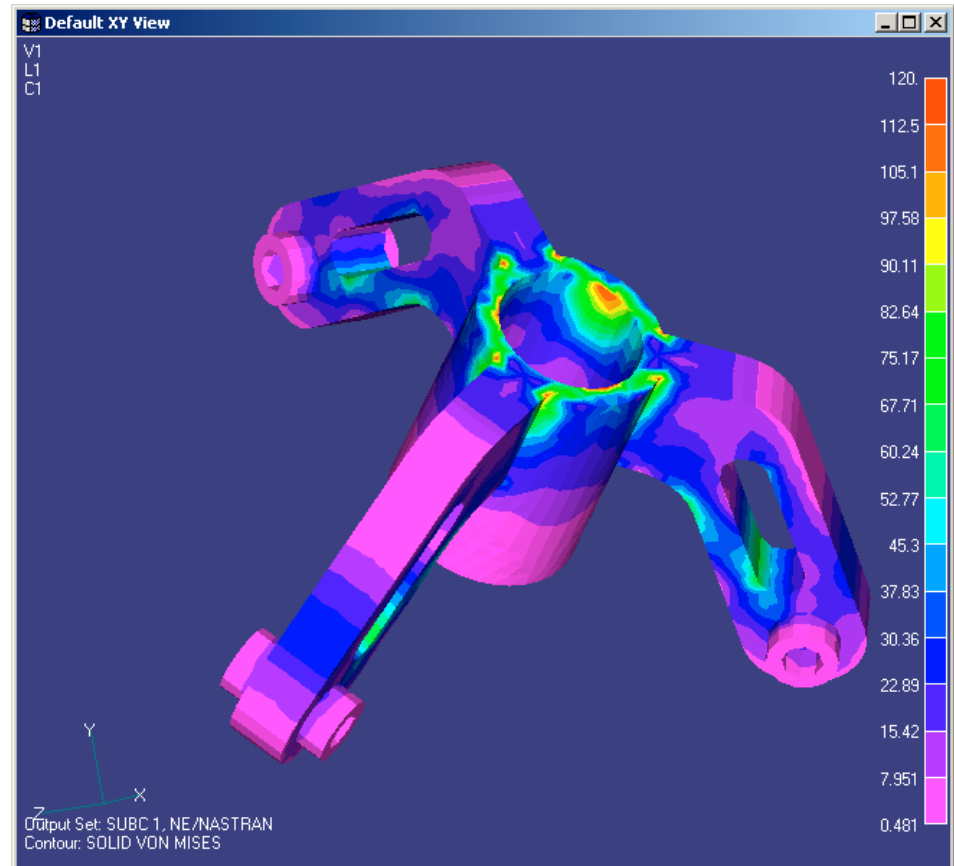
FEA Modeler Stress Wizard

- **Step 4**
 - Toggle resulting **Stress Contours**



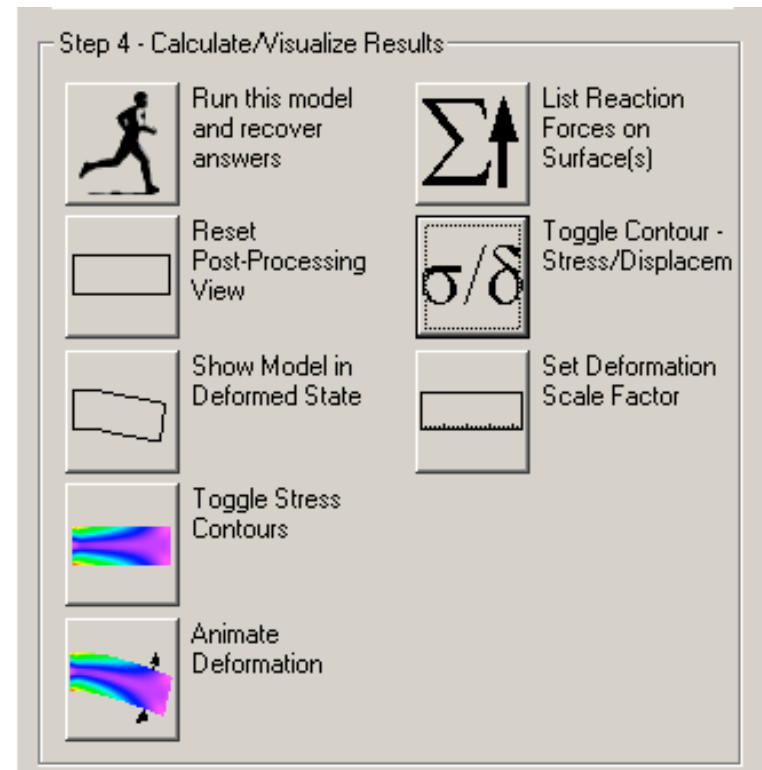
FEA Modeler Stress Wizard

- **Step 4**
 - **Review** model stresses (SOLID VON MISES)



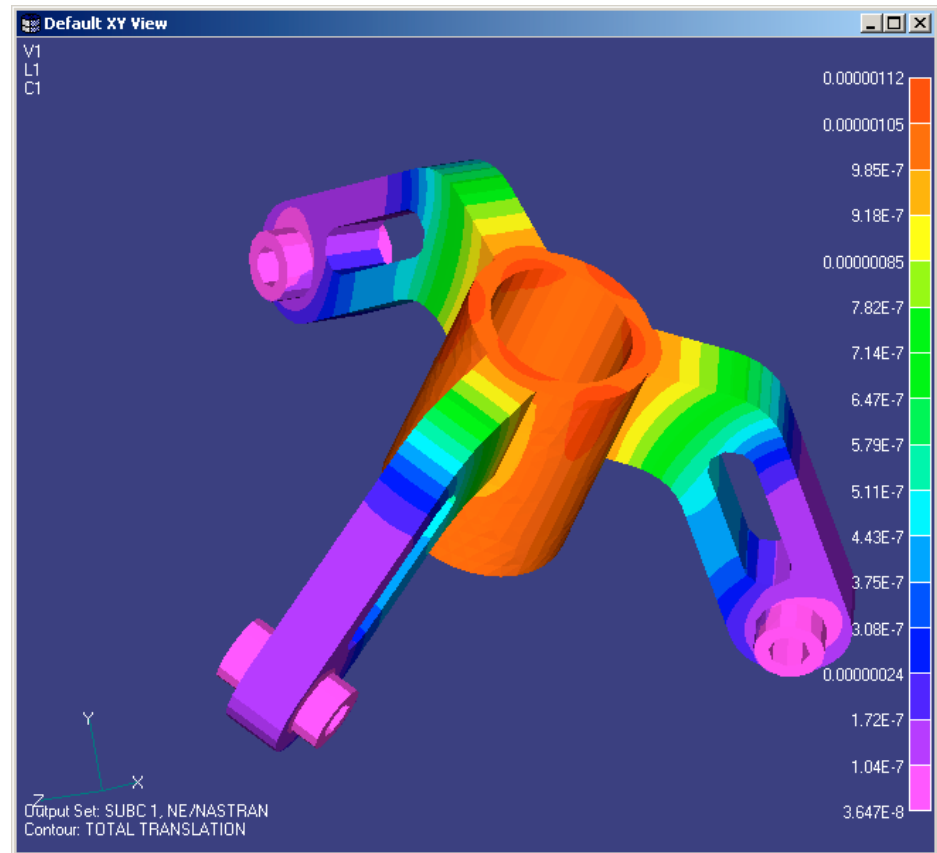
FEA Modeler Stress Wizard

- **Step 4**
 - Change contours between **Stress** and **Displacement**



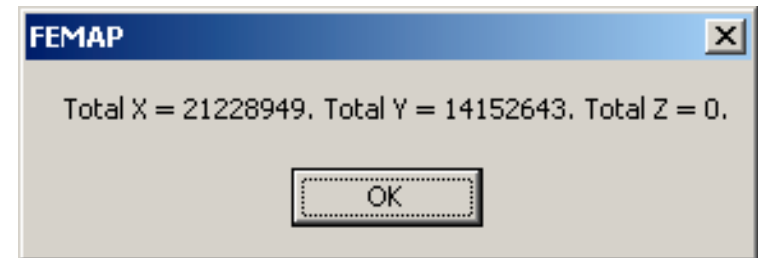
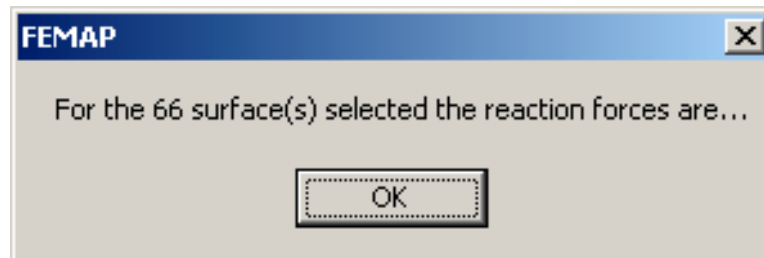
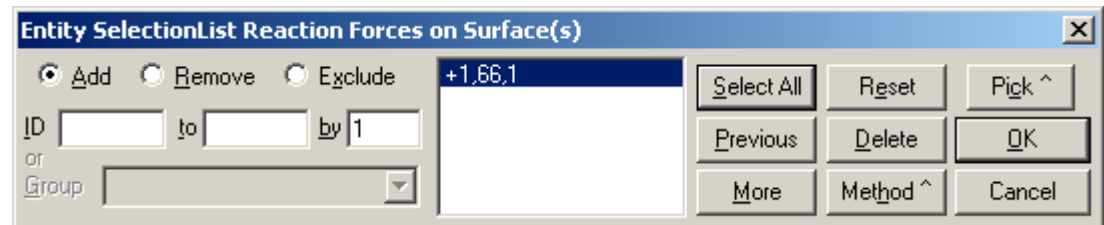
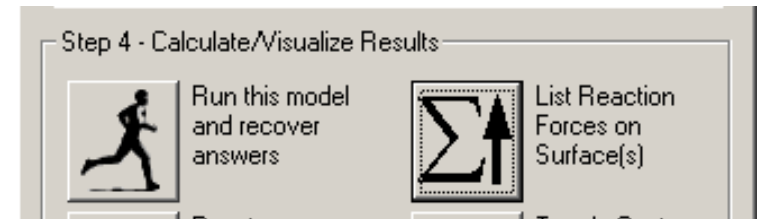
FEA Modeler Stress Wizard

- **Step 4**
 - **Review** model displacements (TOTAL TRANSLATION)



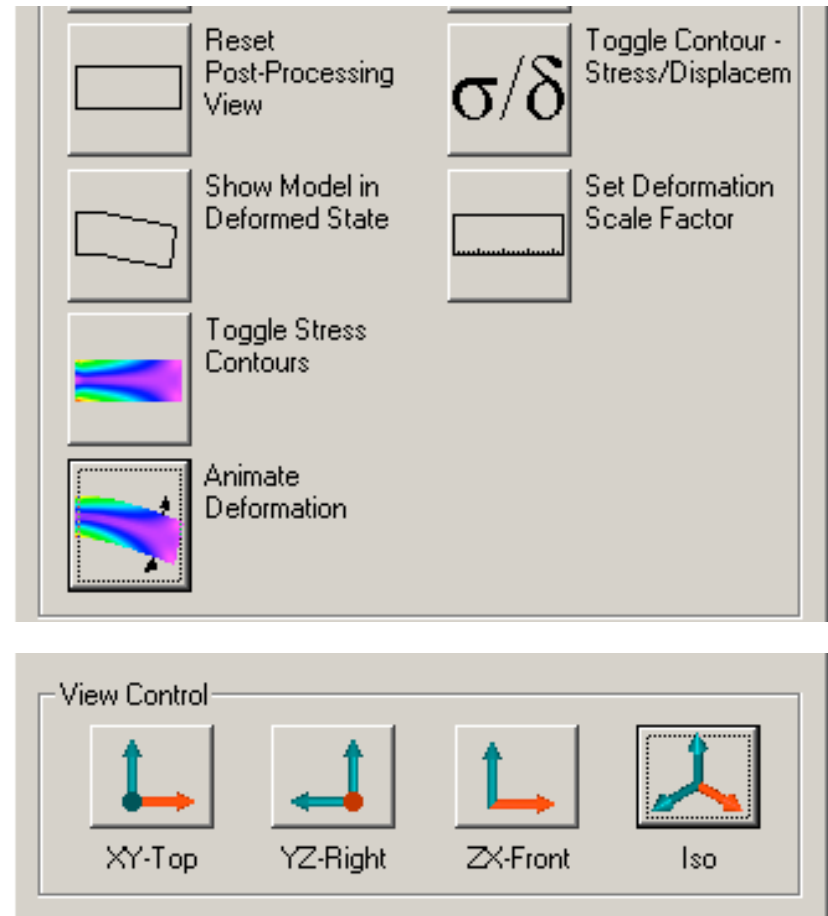
FEA Modeler Stress Wizard

- **Step 4**
 - List Reaction Forces on Surface (s)



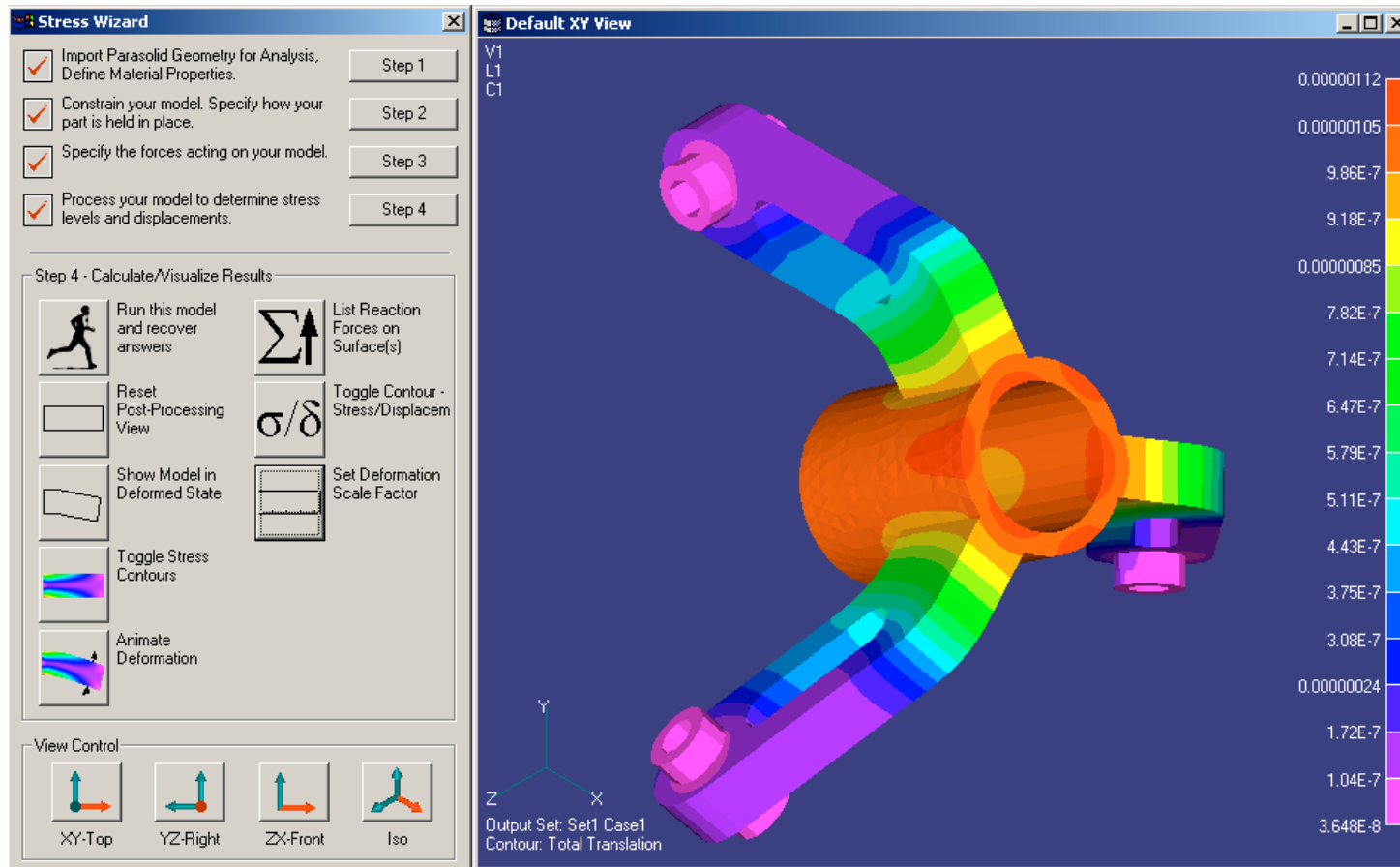
FEA Modeler Stress Wizard

- **Step 4**
 - **Animate** Deformation
 - Set Deformation **Scale** Factor
 - **View Control** set up predefined views



FEA Modeler

Stress Wizard User Interface



FEA Stress Wizard
Thanks for your attention !