Course in ANSYS

Example0701
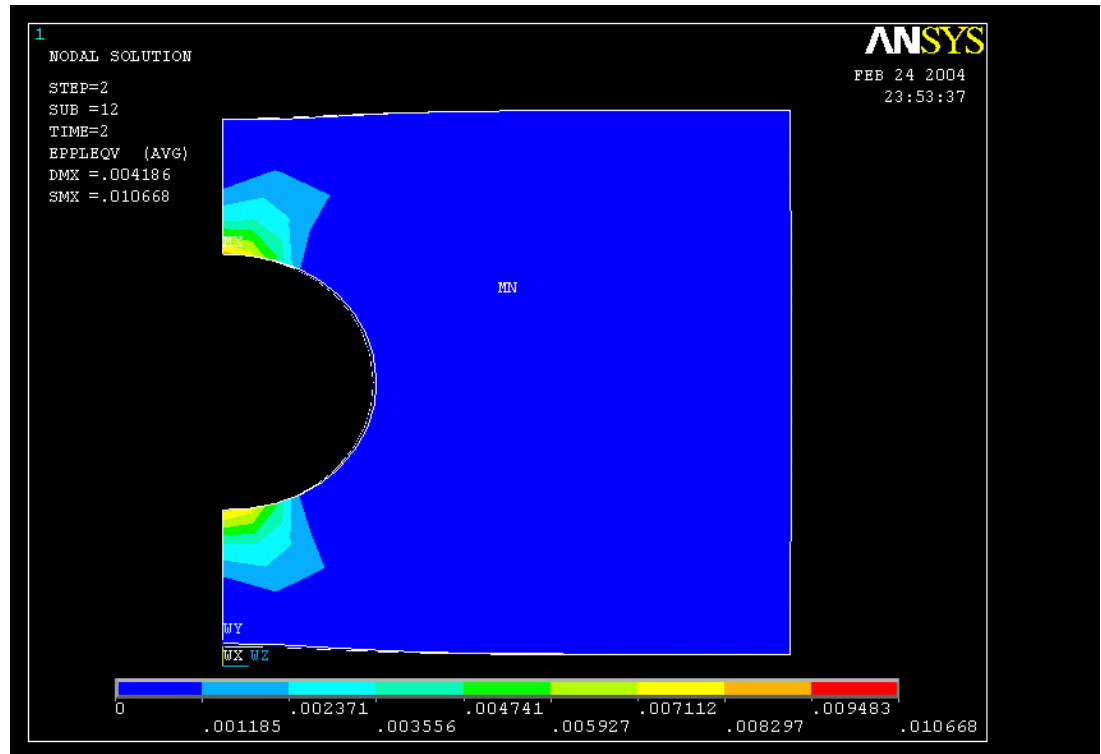
Example – Clamp

Objective:

Example on restart

Tasks:

Restart a nonlinear analysis

Topics:

Topics: Restart of analysis

Example – Read input from

- A clamp has two pressure loads applied. The block has plasticity (Bilinear Kinematic Hardening) material properties defined, making this a nonlinear analysis. In the first loadstep, the end pressure of –20000psi is applied. In the second loadstep, a pressure of 200psi is applied on the top face. The load should have been applied on the front face with 200psi, not the top face. Instead of re-running the entire solution, use restart after the first loadstep where –20000psi were applied.

Load the restart.lgw by **File Menu > Read input from**

Performing a restart – Step 1

- To perform the restart, go to solution and pick restart. Two boxes will pop up. One showing a summary of the files you can restart from, and the second one allowing you to enter what loadstep and substep to restart from.

Performing a restart – Step 2

- In most cases, all that is required is to enter the loadstep and substep numbers. The action button set to continue allows ANSYS to pick up where it left off. Note: if you leave the substep number box blank, ANSYS defaults to the last substep.

Performing a restart – Step 3

- If you are restarting from within a loadstep (as in loadstep 1 substep 4 above) put in 1 for loadstep, and 4 for substep. Pick OK. After that, you can specify changes, like add some equilibrium iterations or change the number of sub steps say for an un-converged solution. Finally, pick solve.

Performing a restart – Step 4

- If you are adding an additional loadstep, like loadstep 2, put loadstep 1 substep 5 in the boxes. Pick OK, then specify/pick all the commands necessary for the next load step. Finally, pick solve.