

ANSYS Class3 Error Report

ERROR NO:

2009-15

Keywords:

NEQIT CONTACT DISPLACEMENT LOADING

Description of Error:

The NEQIT,FORCE,1 command introduces incorrect results under the following circumstances:

(1) Contact elements (CONTA171 through CONTA178) are present.

(2) Non-zero displacements are specified using the D command.

(3) The program-calculated line search parameter is not equal to one.

If the above conditions are met, the results (such as displacements, stresses, contact tractions) are multiplied by a factor which is equal to the line search parameter.

This error may also be seen inside the Mechanical product under the following situations:

(1) Bonded or No Separation contact exists in the model.

(2) No nonlinearities exist in the analysis.

(3) The contact formulation is other than MPC.

(4) A non-zero displacement based load exists.

Mechanical will issue the NEQIT,FORCE,1 command in a static or transient analysis when the above conditions are met. Note that the error may occur in Mechanical only under these conditions, specifically when the line search parameter is not equal to one. However, in practice, this situation will be rarely encountered.

Typical GUI Path(s):

Main Menu>>Solution>>Load Step Opts>>Nonlinear>>Equilibrium Iter

Other Comments:

First Incorrect Version:

Release 12.0

Corrected In:

Release 12.1

Suggested User Action For Running on Uncorrected Version:

Mechanical APDL: Issue LNSRCH,off to explicitly turn off line search. Mechanical: Turn off Line Search on the Analysis Settings object.

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