

ANSYS Class3 Error Report

ERROR NO: 2009-15R1

Keywords:

NEQIT CONTACT DISPLACEMENT LOADING

Description of Error:

The NEQIT,1,FORCE 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 which will issue the NEQIT,1,FORCE command under the following circumstances:

- (1) Only Bonded or No Separation contact exists in the model.
- (2) No other nonlinearities exist in the analysis.

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.

Author Signature: Yongyi Zhu 9/21/2009

Reviewed By QA: Bill Bryan 10/12/2009

Approval: Dave Conover 9/21/2009