

January 26, 1994  
G-1151-RSO-94-025

Document Control Desk  
United States Nuclear Regulatory Commission  
Washington, D.C. 20555

**BOEING**

Reference: a) Boeing Letter G-1551-RSO-365 dated August 31, 1992;  
R. S. Orr to the NRC Operations Center  
b) NRC Letter Docket No. 99901227 dated August 12,  
1992; L. J. Norrholm to R. S. Orr; Subject: Response to  
10 CFR 21 Inquiry

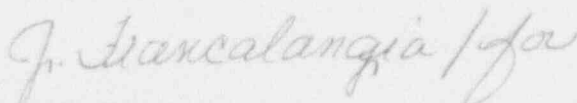
Dear Sir or Madam:

In accordance with the reference correspondence and 10 CFR 21, Boeing is sending the NRC the attached error notice(s) received from our former software suppliers. Because of unknown current addresses, the following former customers were not notified:

Reactor Controls, Inc.  
Echo Energy Consultants, Inc.  
Nuclear Applications and Systems Analysis Company (Japan)  
Nuclear Power Services  
URS/John A. Blume & Associates

Error notices have been sent to our other former customers.

Very truly yours,



R. S. Orr  
Nuclear Administrator  
G-1151 M/S 7A-33  
(206) 865-4438

Attachment(s): Class 3 Error Reports 93-109, 93-110 and 93-111  
ANSYS QA Notices QA-93-23, QA 93-24, QA93-25,  
QA93-26 and QA93-27

010099

JEHO

**Swanson Analysis Systems, Inc.**

Johnson Road, P.O. Box 65, Houston, PA 15342-0065

JAN 25 1994

CONTRACTS

PHONE (412) 746-3304  
FAX (412) 746-9494

December 30, 1993

Dear Class3 Error Recipient:

Enclosed you will find ANSYS Class3 Error Reports 93-109, 93-110 and 93-111. Also enclosed are ANSYS QA Notices QA93-23, QA93-24, QA93-25, QA93-26 and QA93-27. For your convenience, Class3 Error Report summaries for Rev. 5.0 and Rev. 5.0A, sorted both by Class3 Error number and by keyword, are enclosed as well.

QA Notice QA93-23 corrects the description of the /BATCH command included in the "New Features of ANSYS Rev. 5.0A Manual." QA Notice QA93-24 clarifies an ambiguity in the Revision 5.0 ANSYS Commands Manual related to the ETABLE command.

QA Notice QA93-25 is being issued to ensure that the 5.0A program errata sheet, included with all 5.0A documentation packages, is made known to all ANSYS users. This QA Notice also corrects a typographical error in one of the items on the original errata sheet.

QA Notice QA93-26 releases the new features of element SOLID65 at Rev. 5.0A for production usage and lists significant errors that were identified during the verification testing effort.

QA Notice QA93-27 describes a mis-application of the AUX12 radiation matrix generation utility that could be attempted because of a recommendation in one of our tutorials.

These are the last Class3 Error Reports and QA Notices which will be issued in 1993. You therefore should have a complete set numbered sequentially from 93-01 through 93-111. In addition, you should have a set of ANSYS QA Notices numbered QA93-01 through QA93-27.


Occasionally, reports need to be reissued to correct or clarify information in the original report. In 1993 you should have received Class3 Error Reports 88-12 R2, 93-22 R1, 93-16 R1, 93-45 R1, 88-37 R3, 93-45 R2, 93-64 R1 and ANSYS QA Notices QA92-05 R1, QA92-06 R1 and QA92-08 R1. If you did not receive any of these reports, please let us know so they can be provided to you. Contact Bonny Podolek of SASI's QA department for these requests.

Accompanying this letter is a form which you may use to correct any outdated information on the mailing address that we are presently using to send you Class3 Error Reports. If any changes need to be made, we ask that you complete this form and return it to the Quality Assurance Department.

As we begin the new year, on behalf of the staff at Swanson Analysis Systems, Inc. and all of our support distributors worldwide, I would like to wish you all a very prosperous new year.

Sincerely,

SWANSON ANALYSIS SYSTEMS, INC.

  
Mark C. Imgrund, Manager  
Quality Assurance Department

# Swanson Analysis Systems, Inc.

Johnson Road, P.O. Box 65, Houston, PA 15342-0065



PHONE (412) 746-3304  
FAX (412) 746-9494

As stated in your ANSYS agreement, SASI must be notified in writing when there is a change in the ANSYS Support Coordinator or a change in the mailing address at your company. This will enable SASI to issue Class3 Error Reports to you in a timely manner.

Please indicate if an ASC change or address change is necessary

COMPANY: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

PHONE: \_\_\_\_\_

FAX: \_\_\_\_\_

\_\_\_\_\_ has been replaced as ANSYS Support  
(ASC SASI currently has on file)

Coordinator at \_\_\_\_\_ by \_\_\_\_\_  
(company) new ASC)

\_\_\_\_\_  
Signature of ANSYS Support Coordinator

\_\_\_\_\_  
Date

If you would like to see any ASC or address changes incorporated, please complete this form and return to

Bonny Podolek  
Swanson Analysis Systems, Inc.  
Johnson Road P.O. Box 65  
Houston, PA 15342

# ANSYS® CLASS3 ERROR REPORT

ERROR NO: 93-109

KEYWORDS:        LSWRITE                    CECMOD                    LSSOLVE

## DESCRIPTION OF ERROR:

The CECMOD command (used to modify the constant term of a constraint equation between load steps) is not captured on the load step file by the LSWRITE command. Therefore, solutions obtained by the LSSOLVE command will use whatever constant term is currently active in the database.

FIRST INCORRECT VERSION(S):\*

Rev. 5.0

CORRECTED IN:\*

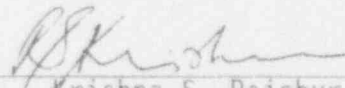
Rev. 5.1

## SUGGESTED USER ACTION FOR RUNNING ON UNCORRECTED VERSION:

1. Use the multiple SOLVE method instead of the LSWRITE-LSSOLVE method for multiple load step solutions.
- or 2. Edit the appropriate load step file(s) using the system editor and add the desired CECMOD command(s).

## COMMENTS:

AUTHOR/CORRECTOR:

  
Krishna S. Raichur

DATE: December 29, 1993

REVIEWED BY QA:

  
Mark C. Imgrund

DATE: December 29, 1993

APPROVAL:

  
John A. Swanson

DATE: December 29, 1993

\*If a product name is not included in the "first incorrect version", the full ANSYS program is implied. For products not listed, this error does not apply, but see the reverse side for equivalent product designations.

Unless noted otherwise, this error report also applies to all revisions after the first incorrect one and prior to the corrected revision. All revisions after "corrected in" are corrected. Manual corrections are included in on-line documentation as appropriate. Please see the reverse side of this sheet for additional information on ANSYS revision identifiers.

FORM SASI-QA25  
DEC 19, 1988

KEYWORDS: SHELL63 ELEM63 WARPED ELEMENT THERMAL LOAD

## DESCRIPTION OF ERROR:

Stresses are inaccurate for a SHELL63 model (the elastic quadrilateral shell) if:

1. thermal loads are present (ALPX on the MP command greater than 0 and any element temperature not equal to TREF);
- and 2. any of the elements in the model have their four nodes not lying in a plane (the element is warped). The warping factors for which this inaccuracy occurs are as follows:
  - Rev. 3.0 - Rev. 4.1C: If any nodal normal is less than .00001 times the average element normal (see the Theory Manual for more details on this computation).
  - Rev. 4.2 - Rev. 4.4A: For all warped elements.
  - Rev. 5.0 - Rev. 5.0A: If the amount one node is out-of-plane (with respect to the others) is less than .01 times the average thickness (see the Theory Manual for more details on this computation).

For Rev. 3.0 - Rev. 4.1C and Rev. 5.0 - Rev. 5.0A, if all of the element warping factors are greater than the above reference values, the results are correct.

## FIRST INCORRECT VERSION(S):\*

## CORRECTED IN:\*

Rev. 3.0  
PC Products Rev. 4.2

Rev. 5.1  
PC Products Rev. 5.0A

## SUGGESTED USER ACTION FOR RUNNING ON UNCORRECTED VERSION:

Use triangular elements.

## COMMENTS:

For a stress-free thermal expansion in Rev. 3.0 - Rev. 4.1C and Rev. 5.0 - Rev. 5.0A, the erroneous stresses obtained (which should be zero) are equal to about 5% of the "thermal stress",  $EX*ALPX*(T - TREF)$ . In Rev. 4.2 - Rev. 4.4A, the erroneous stresses obtained are about 25% of the "thermal stress". For a constrained model (not stress-free), the erroneous contribution to the stress from the thermal terms will be of similar magnitude.

AUTHOR/CORRECTOR:

*David L. Conover*  
David L. Conover

DATE: December 28, 1993

REVIEWED BY QA:

*Mark C. Imgrund*  
Mark C. Imgrund

DATE: December 28, 1993

APPROVAL:

*John A. Swanson*  
John A. Swanson

DATE: December 28, 1993

\*If a product name is not included in the "first incorrect version", the full ANSYS program is implied. For products not listed, this error does not apply, but see the reverse side for equivalent product designations.

Unless noted otherwise, this error report also applies to all revisions after the first incorrect one and prior to the corrected revision. All revisions after "corrected in" are corrected. Manual corrections are included in on-line documentation as appropriate. Please see the reverse side of this sheet for additional information on ANSYS revision identifiers.

# ANSYS® CLASS3 ERROR REPORT

ERROR NO: 93-111

KEYWORDS: PROCEDURES MANUAL MODAL DAMPING MATERIAL

## DESCRIPTION OF ERROR:

Page 3-82 of the Procedures Manual (Revision 5.0 User's Manual, Volume I, Procedures; Upd0, Printings 1 and 2) incorrectly states:

"...[the command] MP,DAMP in a modal analysis specifies a material-dependent damping ratio  $\xi$ , not  $\beta$ ."

This behavior actually applies to a spectrum (ANTYPE,SPECTR) analysis, not a modal (ANTYPE,MODAL) analysis. The sentence should read:

"...[the command] MP,DAMP in a spectrum analysis specifies a material-dependent damping ratio  $\xi$ , not  $\beta$ ."

## FIRST INCORRECT VERSION(S):\*

Rev. 5.0

## CORRECTED IN:\*

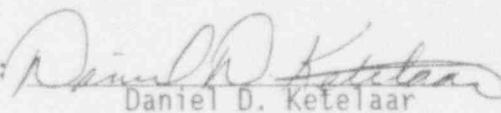
Rev. 5.0 Procedures Manual  
Upd0, 3rd Printing

## SUGGESTED USER ACTION FOR RUNNING ON UNCORRECTED VERSION:

## COMMENTS:

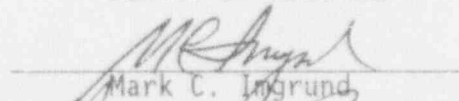
In fact, MP,DAMP in a (damped) modal analysis (ANTYPE,MODAL with MODOPT,DAMP) specifies a material-dependent  $\beta$ , not a ratio  $\xi$ .

AUTHOR/CORRECTOR:

  
Daniel D. Ketelaar

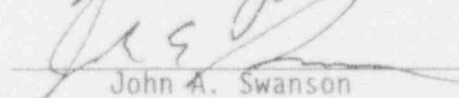
DATE: December 28, 1993

REVIEWED BY QA:

  
Mark C. Ingrund

DATE: December 28, 1993

APPROVAL:

  
John A. Swanson

DATE: December 28, 1993

\*If a product name is not included in the "first incorrect version", the full ANSYS program is implied. For products not listed, this error does not apply, but see the reverse side for equivalent product designations.

Unless noted otherwise, this error report also applies to all revisions after the first incorrect one and prior to the corrected revision. All revisions after "corrected in" are corrected. Manual corrections are included in on-line documentation as appropriate. Please see the reverse side of this sheet for additional information on ANSYS revision identifiers.

FORM SASI-QA25  
DEC 19, 1988



# ANSYS QA NOTICE

NOTICE NO. QA93-23

SUBJECT: /BATCH BEHAVIOR WITH RESPECT TO START.ANS

## DESCRIPTION:


The documentation in Section 8.2 of the "New Features of ANSYS Revision 5.0A" manual (Upd0, 1st through 3rd printings) incorrectly states that the /BATCH command will suppress the reading of the START.ANS file. Beginning with Rev. 5.0A, using the /BATCH command to initiate a batch mode execution will NOT prevent ANSYS from reading the START.ANS file\*. If the START.ANS file contains commands that are interactive (such as /MENU,ON), the job will not proceed until some response is given.

Furthermore, the documentation incorrectly implies that the /BATCH command and the "-b" command line option are equivalent. They are different in the sense that the "-b" option puts ANSYS in batch mode before the read/noread START.ANS decision is made, whereas the decision has already been made to read START.ANS when the /BATCH command is executed. Therefore, the "-b" command line option or the "-s noread" command line option must be used if a START.ANS file is present but is not to be read. If "-b" and "-s read" are both used, ANSYS will read the START.ANS file but will not expect any input (and not process interactive commands), since the job is already in batch mode when the file is read.

The "New Features of ANSYS Revision 5.0A" manual will be corrected in the 4th printing.


\* This is an upward incompatibility, since in Rev. 5.0 the /BATCH command *did* suppress the reading of the START.ANS file.

AUTHOR:

  
\_\_\_\_\_  
Gary Morrow

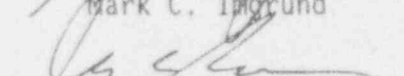
DATE: December 28, 1993

REVIEWED BY QA:

  
\_\_\_\_\_  
Mark C. Imgrund

DATE: December 28, 1993

APPROVAL:

  
\_\_\_\_\_  
John A. Swanson

DATE: December 28, 1993

SASI-QA3  
8/29/93

# ANSYS QA NOTICE

NOTICE NO. QA93-24

SUBJECT:           ETABLE                   AVERAGED ELEMENT RESULTS

## DESCRIPTION:

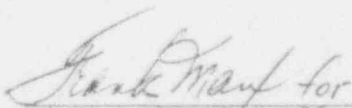
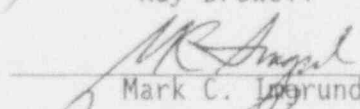
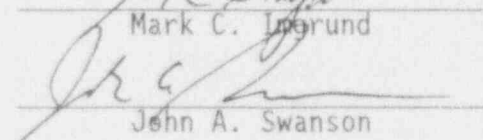
In the Revision 5.0 ANSYS Commands Manual, in the description of the ETABLE command, the phrase "Various element results (except FMAG) are averaged for the element with only a single value stored", is ambiguous. This notice provides further clarification regarding which element results are averaged per node by the ETABLE command.

The averaging process is done for all of the element results with two exceptions. The first exception is the following list of items which represent a single element value rather than an "averaged" value: SERR, SDSG, TERR, TDSG, SENE, TENE, KENE, JHEAT, JS, VOLU, and CENT. The second exception is FMAG, which is summed.

All other items are summed and then divided by the number of nodes to obtain averaged quantities. Note that this will result in average element values for some quantities, such as F, M, HEAT, FLOW, AMPS, FLUX, VF, CSG, which may not be very meaningful. More meaningful values (i.e. summed) can be obtained in such cases (such as total heat flow for the element in case of HEAT) by multiplying the ETABLE value by the number of nodes in the element.

At Revision 5.1, some of the appropriate element result items will be changed to represent summed quantities (rather than averaged) to provide the more meaningful values. These quantities will be listed in the Rev. 5.1 Commands Manual.

AFFECTED VERSIONS:   Rev. 5.0 - Rev. 5.0A

AUTHOR:	 Ray Browell	DATE:	December 28, 1993
REVIEWED BY QA:	 Mark C. Lorund	DATE:	December 28, 1993
APPROVAL:	 John A. Swanson	DATE:	December 28, 1993

SASI-QA3  
AUG. 29, 1993



# ANSYS QA NOTICE

NOTICE NO. QA93-25


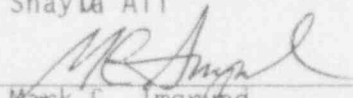
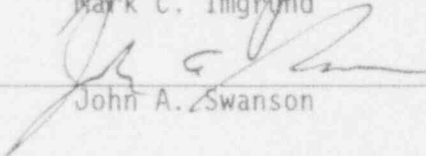
SUBJECT:        5.0A FEATURES                    LIMITATIONS                    ERRORS

## DESCRIPTION:

The attached errata sheets indicate the list of those features in the program that were known to be incorrect or incomplete at the time Rev. 5.0A was released. Some of these limitations could cause Class3-type errors if their presence is not known to the user. Even though this information has been part of each ANSYS Rev. 5.0A New Features Manual shipment, the information is supplied here to ensure that all users are aware of these known Rev. 5.0A limitations.

Please note the highlighted corrections on item no. 34 on page 6 of the "Attachment to QA93-25".

AFFECTED VERSIONS:    Rev. 5.0A

AUTHOR:	 Shayla Ali	DATE:	December 28, 1993
REVIEWED BY QA:	 Mark C. Imgrund	DATE:	December 28, 1993
APPROVAL:	 John A. Swanson	DATE:	December 28, 1993

SASI-QA3  
AUG. 29, 1993

## - NOTICE -

The following features in ANSYS Rev. 5.0A are in error or have limitations at the initial release of this version. These features are expected to be fully operational at the subsequent release (designated as Rev. 5.1). These sheets may then be disregarded.

ANSYS Class3 errors discovered in this revision subsequent to the date of this notice have been or will be reported through SASI's on-going Class3 error reporting system. These reports are sent to each commercial license through their ANSYS Support Coordinator (ASC). If you have not been receiving these reports, contact your ASC.

### Solid Modeling and Meshing

1. Some Boolean operations may produce a valid result which contains an unnecessary curve splitting operation, creating more lines than needed. Use the LCOMB command to combine the (adjacent) lines into one line if required.
2. The AOVLAP and VOVLAP commands work only for a few entities (areas or volumes) at a time due to available memory restrictions. This problem can be resolved by using a sequence of AOVLAP (or VOVLAP) operations each using fewer entities instead of one AOVLAP (or VOVLAP) of all entities.
3. Performing Boolean operations on any solid model entity that contains a "degeneracy" is not permitted. Attempts to do so will result in an error message. Refer to the Procedures Manual (Solid Modeling section) for a description of the meaning of degeneracy.
4. A non-planar area (Coons patch) created from the A or V command may cause trouble during a Boolean operation, if two adjacent boundary lines of the Coons patch are circular or elliptic arcs. Loosening the tolerance by using the BTOL command may help the Boolean operation.
5. Multi-shell volumes have not been fully implemented for the PREP7 IGES command. For this case, all the surfaces are written to the IGES file but only the innermost shell is reconstructed as a volume when read back in with the AUX15 IGES command. Multi-shell volumes must be split through all shells (into single-shell volumes) before writing the model to the IGES file. Note that the VLIST command can be used to show the number of shells per volume.
6. An overlap operation (VOVLAP) of two equal-diameter cylinders rotated from each other by 90 degrees will produce a degeneracy message.

the computation of bulk and shear moduli and do not have a physical representation. These quantities are also stored on the results file as nonsummable miscellaneous (NMISC) data items 25 through 32 (ETABLE command).

16. Pressures on BEAM4 that have ESYS defined using a third node (K) are not displayed in the desired ESYS. They are displayed in global Cartesian. The pressure is applied and used correctly by the solver.
17. PIPE59 does not generate a load vector for wave effects if ANTYPE,HARMIC is set.
18. SHELL43 elements undergoing large deflections or large strain may experience difficulties due to excessive curvature. The solution output items "force convergence value" and "criterion" are reported as NAN (not a number).
19. /PSF,PRES,2 incorrectly indicates the directions of pressures applied to SURF22 elements.

### Solution

20. The Jacobi Conjugate Gradient solver out-of-memory (disk memory) option (EQSLV,JCGOUT) is not available with the subspace iteration modal method. A warning message will be issued to this effect when you try to use this option. The suggested workaround is to use EQSLV,JCG (in-memory option), with the SUBOPT command. Specify a value greater than zero for the NPERBK field (SUBOPT) to use disk I/O.
21. In a restarted adaptive solution, if the previous solution meets the new allowable error, no new solution will be performed and adaptive looping will stop immediately. This will occur even if boundary conditions or other input data have been changed since the previous solution was performed. One consequence of this error is that if a user performs adaptive meshing with insufficient boundary conditions, and a solution has zero error norms, any attempt to correct the boundary conditions and continue will fail. To get around this problem, issue SOLVE (in the solution phase) after changing the boundary conditions, before restarting ADAPT.
22. Specifying the local file option (/CONFIG,LOCFL,1 command or LOCALFIL=1 in the CONFIG.ANS file) may produce incorrect results in a nonlinear analysis. This error has been found to occur in the time step in which automatic time-stepping (AUTOTS,ON) is being used and bisection has been automatically used to recover from a convergence failure. This usually results in a subsequent diverging solution which may be indicated by a "Displacement limit exceeded" error message. To prevent this error from occurring, use the global file option (default).
23. The Jacobi Conjugate Gradient equation solver (EQSLV,JCG), will fail to converge if used with internal file types (/FTYPE,,INT).

34. Comparisons of character parameter values using the EQ operator on the \*IF command are case insensitive, and they should not be.
35. Character parameters cannot be used as input on the \*ELSEIF command.
36. A character scalar parameter cannot be assigned a blank value (i.e., a=' ' is not valid). Additionally, the first array element of a character array parameter cannot be assigned a blank value, or the entire array parameter might be deleted.
37. When assigning a numeric character string to a character parameter, you must strictly adhere to the documented format for the CHRVAL function if you plan to later use the VALCHR function to return the numerical value of that parameter. Any deviation from the documented format may result in the deletion of the original character parameter.
38. If a character parameter is used to define an abbreviation name (i.e., input for Abbr on the \*ABBR command), its character value may not get substituted when input as a command name.
39. During optimization looping, a character array parameter will be deleted in any loops subsequent to the first loop.
40. You may not assign a numeric value to a character parameter defined as type 'character'. Not only will an incorrect numeric value result, but no warning will be issued to the user regarding this error.
41. ANSYS will abort if a numeric parameter of value greater than 1000000 is assigned as a character value of a character array parameter through the CHRVAL function.
42. The \*CFWRITE command may not be used to define a character parameter string. (i.e., \*CFWRITE,A='GEAR' is invalid.)
43. If a character parameter is input in a field which requires numerical input, a very large (incorrect) number is used.
44. In multiple forced substitution using two parameters (within a 32 character field), the second parameter is ignored if the length of the first character string is greater than five. For example, if parameters A='/TEST/' and B='MODEL/' are defined, the following command:
 

```
FILE,Fname,Ext,%A%%B%
```

 results in the directory name of /TEST/. Similarly, in a triple substitution, the third parameter is ignored if the length of the second parameter is greater than five.
45. You may not use a character parameter as a file name for input to the LIST command.

54. When transferring a ProEngineer Version 11 IGES file into ANSYS 5.0A, there may be incomplete line loops. These incomplete line loops may occur when plotting areas with faceting turned on, performing an ASUM, or creating a volume with the VA,ALL command.

KEYWORDS: SOLID65 ELEM65 VERIFICATION

## DESCRIPTION:

The quality assurance verification testing of the enhancements to SOLID65 at Revision 5.0A has been completed (see pp. 11-8, 11-9 and Appendix E, pp. E-17 to E-23 of the "New Features of ANSYS Revision 5.0A" manual). These enhancements were documented as beta features at Revision 5.0A.

The following significant restrictions/errors have been identified during final QA testing. The errors and limitations will be either corrected at Revision 5.1 or documented.

1. Large strain and large deflection (NLGEOM,ON) of SOLID65 is not recommended if any cracking or crushing nonlinearities are present. Results may be incorrect, or not converge, especially if there is significant large rotation involved. A warning will be added to the program at Rev. 5.1.
2. The use of stress-stiffening in cracked or crushed models is not recommended.
3. A default residual modulus value for tensile stress relaxation (real constant 13) is not included. Revision 5.1 will be corrected to reflect a default value of 0.6.

AFFECTED VERSION(S): Rev. 5.0A

AUTHOR: Dave Schmidt DATE: December 28, 1993  
Dave SchmidtREVIEWED BY QA: Mark C. Imgrund DATE: December 28, 1993  
Mark C. ImgrundAPPROVAL: John A. Swanson DATE: December 28, 1993  
John A. Swanson



# ANSYS QA NOTICE

NOTICE NO. QA93-27

SUBJECT: *AUX12 THERMAL RADIATION UTILITY*

## DESCRIPTION:

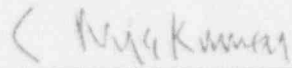
In a thermal radiation analysis using the AUX12 substructure matrix utility, the solution will be in error when the radiating surface mesh is coarser than the underlying solid mesh. This usage is invalid and is not recommended.

The Rev. 4.3 Radiation Matrix Generation Utility Tutorial (DN-T004:43) recommends that the surface mesh (generated using LINK32 in 2-D, and SHELL57 in 3-D) can be coarser in order to speed up the run time. This recommendation should be ignored, since the results from such an analysis will be incorrect.

For correct results, all of the surface nodes on the underlying solid mesh that participate in radiation heat transfer must be included in the substructure matrix generated in AUX12.

AFFECTED VERSIONS: All versions with the AUX12 Radiation Matrix Utility (Rev. 4.3 onwards)

AUTHOR:

  
\_\_\_\_\_  
Charles Rajakumar

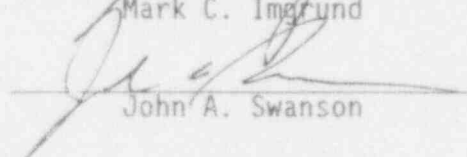
DATE: December 28, 1993

REVIEWED BY QA:

  
\_\_\_\_\_  
Mark C. Imgrund

DATE: December 28, 1993

APPROVAL:

  
\_\_\_\_\_  
John A. Swanson

DATE: December 28, 1993

SASI-QA3  
AUG. 29, 1993

# ANSYS 5.0 CLASS3 ERROR SUMMARY BY REPORT NUMBER

ERROR NUMBER	KEYWORD #1	KEYWORD #2	KEYWORD #3	KEYWORD #4	KEYWORD #5	KEYWORD #6	CORRECTED VERSION
88-37 R3	CONSTRAINT EQNS	UNSYMMETRIC	STIFX	STIF15,27,30,50	STIF55,56,66,70		Rev. 5.1
92-51	STIF15	HEAT GENERATION	LUMPED SPEC HEA				Rev. 5.0A
93-01	ELEM39	COMB1R39					Rev. 5.0A
93-02	SURF19	ELEM19	EXPANSION PASS	SCALED LOADS			Rev. 5.0A
93-05	ELEM59	PIPE59	REYNOLD'S NUMBE	DRAG COEFFICIEN			Rev. 5.0A
93-06	APDL	*VMASK	*VWRITE				Rev. 5.0A
93-07	ANTYPE,HARMIC	HROPT, FULL	CONSTRAINT EQNS				Rev. 5.0A
93-09	SFEDELE	CONV	HFLUX	LKEY			Rev. 5.0A
93-10	ELEM95	SOLID95	SURFACE STRESSE	NLGEDM	SYSTEM		Rev. 5.0A
93-11	PREP7	PIPING	MITER	BEND			Rev. 5.0A
93-12	PREP7	MIDSIDE NODES	E	EN	NOELE		Rev. 5.0A
93-13	MESH	LSOLVE	SOLID MODEL BC				Rev. 5.0A
93-14	APDL	MANUAL	COMMANDS	*VPUT			5.0 User Manual
93-15	APDL	RESUME	NOPAR=1	MANUAL	COMMANDS		5.0 User Manual
93-16 R1	SETRAN	ELEM50	SUPERELEMENT	USE PASS			Rev. 5.0A
93-17	MESH	LCCAT	AMESH	VMESH			Rev. 5.0A
93-18	APDL	*SET	ARGX				Rev. 5.0A
93-19	CDWRITE	MAGNETICS	EMUNIT				Rev. 5.0A
93-20	PREP7	NUMCMP	ETYPE				Rev. 5.0A
93-21	SPECTRUM	PSD	DAMPING				Rev. 5.0A
93-22 R1	SPECTRJM	SFOPT,MFRS	PSDUNIT,ACCG				Rev. 5.0A
93-23	ASUM	VSUM	SOLID				Rev. 5.0A
93-24	TRANSIENT	INERTIAL FORCES	REACTIONS				Rev. 5.0A
93-25	SHELL63	ELEM63	MEMBRANE OPTION	LARGE DEFLECT10			Rev. 5.0A
93-26	FOUNDATION STIF	NONLINEAR	SHELL41,63,99	BEAM44,54			Rev. 5.0A
93-27	LSEL	ASEL	VSEL	KSWEEP			Rev. 5.0A
93-28	CDWRITE	AREAS	ATTRIBUTES				Rev. 5.0A
93-29	VDRAG	SOLID					Rev. 5.0A
93-30	SOLID	BOUNDARY COND	REDUCED DYNAMIC	MODE SUPERPOSM			Rev. 5.0A
93-31	SUBSTRUCTURES	KBC	AUTOTS	SFE			Rev. 5.0A
93-32	PIPE20	ELEM20	NONLINEAR				Rev. 5.0A
93-33	SHELL41	ELEM41	CLOTH OPTION				Rev. 5.0A
93-34	MESH	LCCAT	ACLEAR	SFLDEL	SBCDEL		Rev. 5.0A
93-35	LDREAD	REACTIONS					Rev. 5.0A
93-36	ELEM65	ETABLE	NMISC	DOCU	MANUAL		5.0 User Manual
93-37	APDL	*ELSE	MANUAL	COMMANDS			5.0 User Manual
93-38	SPECTRUM	PSD	MPRS				Rev. 5.0A

## ANSYS 5.0 CLASS3 ERROR SUMMARY BY REPORT NUMBER

ERROR NUMBER	KEYWORD #1	KEYWORD #2	KEYWORD #3	KEYWORD #4	KEYWORD #5	KEYWORD #6	CORRECTED VERSION
93-78	PICKING	*DO	DOCUMENTATION	/BATCH			Rev. 5.0A
93-79	FLUID38	ELEM38	DAMPING				Rev. 5.1
93-80	PIPE16	PIPE17	PIPES9	STRESS STIFFENI	THERMAL LOAD		Rev. 5.1
93-81	ESYS	AXISYMMETRIC EL	MANUAL				5.0 User Manual
93-83	FLUID66	ELEM66	CONVECTION				Rev. 5.1
93-84	MATRIX50	TRANSIENT	DAMPING	NONZERO DOF			Rev. 5.1
93-85	SET	POST1	MANUAL				5.0 User Manual
93-86	FLUID	FLOTRAN	AXISYMMETRIC	FLWRITE			Rev. 5.1
93-87	SOLID	KMODIF	ATTRIBUTES				Rev. 5.1
93-88	ELEM91	SHELL91	NONLINEAR MAT'L				Rev. 5.1
93-89	ELEM41	SHELL41	WRINKLE OPTION				Rev. 5.1
93-90	SOLUTION	SUBSTRUCTURES	SESYMM	ELEM50			Rev. 5.1
93-91	MAGNETICS	PLANE53	BF/BFE/BFK	PHASE	VOLT-MAG OPTION		Rev. 5.1
93-92	LOCAL COORD SYS	*GET	CDWRITE	CS	CSKP	ANGLES	Rev. 5.1
93-93	ELEM90	SOLID90	ELEM95	SOLID95	CEINTF		Rev. 5.1
93-94	PREP7	ENORM	EN				Rev. 5.0A
93-95	INERTIA RELIEF	STRUCT	SOLN	IRLF			Rev. 5.1
93-96	POST25	STORE,ALLOC	STORE,MERGE				Rev. 5.1
93-97	ATTRIBUTES	EGEN	ESYM	PROC MANUAL			5.0 User Manual
93-98	NUMMRG	SOLID BC					Rev. 5.1
93-99	COMBIN37	ELEM37	ETABLE				Rev. 5.1
93-100	ELEM50	MATRIX50	SUBSTRUCTURES	TEMP-DEP MAT'LS			Rev. 5.1
93-101	POST1	LCDEF	LCFILE	WSORT	WAVES		Rev. 5.1
93-102	GP	NODE	COMPRESS	MERGE	OFFSET		Rev. 5.1
93-103	APDL	PARSAV	TABLE	PARRES			Rev. 5.1
93-104	SOLUTION	ANTYPE,HARMIC	FULL HARMONIC	RAMPED B.C.			Rev. 5.1
93-105	POST1	LCWRITE	LCFILE	LCASE			Rev. 5.1
93-106	ELEM13	PLANE13	PIEZOELECTRIC	PLANE STRESS			Rev. 5.0A
93-107	HYPER84	HYPER86	ELEM84	ELEM86	STRAINS	THEORY MAN'IAL	5.0 User Manual
93-108	PIEZOELECTRIC	ELEM5	ELEM98	ELEM13			Rev. 5.1
93-109	LSWRITE	CECMOD	LSSOLVE				Rev. 5.1
93-110	SHELL63	ELEM63	WARPED ELEMENT	THERMAL LOAD			Rev. 5.1
93-111	PROCEDURE MANUA	MODAL	DAMPING	MATERIAL			5.0 User Manual

# ANSYS 5.0 CLASS3 ERROR SUMMARY

## KEYWORD SORT OF ALL REVISION 5.0 CLASS3 ERRORS

Date of this report: 12/28/93

KEYWORD	ERROR REPORT NUMBER	COMPLETE KEYWORD LIST				VERSION CORRECTED
*ABBR	93-53	DESIGN OPT	ABBREVIATIONS	*ABBR		5.0 User Manual
*DO	93-78	PICKING	*DO	DOCUMENTATION	/BATCH	Rev. 5.0A
*ELSE	93-37	APDL	*ELSE	MANUAL	COMMANDS	5.0 User Manual
*GET	93-48	EMUNIT,CGS	*GET	*VGET		Rev. 5.0A
*GET	93-72	*GET	ELEM	AREA	VOLU	PARAMETERS
*GET	93-92	LOCAL COORD SYST	*GET	COWRITE	CS	CSKP
*SET	93-18	APDL	*SET	ARGx		ANGLES
*VGET	93-48	EMUNIT,CGS	*GET	*VGET		Rev. 5.0A
*VMASK	93-06	APDL	*VMASK	*VWRITE		Rev. 5.0A
*VPUT	93-14	APDL	MANUAL	COMMANDS	*VPUT	5.0 User Manual
*VWRITE	93-06	APDL	*VMASK	*VWRITE		Rev. 5.0A
/BATCH	93-78	PICKING	*DO	DOCUMENTATION	/BATCH	Rev. 5.0A
ABBREVIATIONS	93-53	DESIGN OPT	ABBREVIATIONS	*ABBR		5.0 User Manual
ACEL	93-69	ELEM21	MASS21	ACEL	NODAL LOADS	REACTION LOADS
ACLEAR	93-34	MESH	LCCAT	ACLEAR	SFLDEL	SBCDEL
AMESH	93-17	MESH	LCCAT	AMESH	VMESH	
ANGLES	93-92	LOCAL COORD SYST	*GET	COWRITE	CS	CSKP
ANTYPE,HARMIC	93-07	ANTYPE,HARMIC	HROPT,FULL	CONSTRAINT EQN		ANGLES
ANTYPE,HARMIC	93-104	SOLUTION	ANTYPE,HARMIC	FULL HARMONIC	RAMPED B.C.	Rev. 5.1
APDL	93-06	APDL	*VMASK	*VWRITE		Rev. 5.0A
APDL	93-103	APDL	PARSAV	TABLE	PARRES	Rev. 5.1
APDL	93-14	APDL	MANUAL	COMMANDS	*VPUT	5.0 User Manual
APDL	93-15	APDL	RESUME	NOPAR=1	MANUAL	COMMANDS
APDL	93-18	APDL	*SET	ARGx		Rev. 5.0A
APDL	93-37	APDL	*ELSE	MANUAL	COMMANDS	5.0 User Manual
AREA	93-72	*GET	ELEM	AREA	VOLU	PARAMETERS
AREAS	93-28	COWRITE	AREAS	ATTRIBUTES		Rev. 5.0A
ARGX	93-18	APDL	*SET	ARGx		Rev. 5.0A
ASEL	93-27	LSEL	ASEL	VSEL	KSWEEP	Rev. 5.0A
ASUM	93-23	ASUM	VSUM	SOLID		Rev. 5.0A
ATTRIBUTES	93-28	COWRITE	AREAS	ATTRIBUTES		Rev. 5.0A
ATTRIBUTES	93-87	SOLID	KMODIF	ATTRIBUTES		Rev. 5.1
ATTRIBUTES	93-97	ATTRIBUTES	EGEN	ESYM	PROC MANUAL	5.0 User Manual

KEYWORD  
 ERROR  
 REPORT  
 NUMBER

COMPLETE KEYWORD LIST

VERSION  
 CORRECTED

KEYWORD	ERROR REPORT NUMBER	LOCAL COORD SYST *GET	CDWRITE	CS	CSKP	ANGLES	VERSION CORRECTED
CSKP	93-92		DAMPING				Rev. 5.1
DAMPING	93-111	PROCEDURE MANUAL MODAL	DAMPING	MATERIAL			5.0 User Manual
DAMPING	93-21	SPECTRUM PSD	DAMPING				Rev. 5.0A
DAMPING	93-79	FLUID38	DAMPING				Rev. 5.1
DAMPING	93-84	MATRIX50 TRANSIENT	DAMPING	NONZERO DOF			Rev. 5.1
DDAM	93-40	SPECTRUM DDAM					Rev. 5.0A
DESIGN OPT	93-53	DESIGN OPT ABBREVIATIONS	*ABBR				5.0 User Manual
DOCU	93-36	ELEM65 ETABLE	NMISC	DOCU	MANUAL		5.0 User Manual
DOCU	93-54	SHELLxx ETABLE	NMISC	DOCU	MANUAL		5.0 User Manual
DOCU	93-55	BEAM44 POST1	ETABLE	SMISC	DOCU	MANUAL	5.0 User Manual
DOCUMENTATION	93-78	PICKING *DO	DOCUMENTATION /BATCH				Rev. 5.0A
DRAG COEFFICIENT	93-05	ELEM59 PIPE59	REYNOLD'S NUMB DRAG COEFFICIE				Rev. 5.0A
E	93-12	PREP7 MIDSIDE NODES	E	EN	NDELE		Rev. 5.0A
EGEN	93-97	ATTRIBUTES EGEN	ESYM	PROC MANUAL			5.0 User Manual
ELEM	93-72	*GET ELEM	AREA	VOLU	PARAMETERS		Rev. 5.0A
ELEM13	93-106	ELEM13 PLANE13	PIEZOELCTRIC PLANE STRESS				Rev. 5.0A
ELEM13	93-108	PIEZOELCTRIC ELEM5	ELEM98	ELEM13			Rev. 5.1
ELEM13	93-70	PLANE13 ELEM13	FRESX	THERMAL STRAIN			Rev. 5.0A
ELEM15	93-68	ELEM15 ELEM67	ELEM69	MODAL LOADS	REACTION LOADS SYSTEM		Rev. 5.0A
ELEM19	93-02	SURF19 ELEM19	EXPANSION PASS SCALED LOADS				Rev. 5.0A
ELEM20	93-32	PIPE20 ELEM20	NONLINEAR				Rev. 5.0A
ELEM21	93-69	ELEM21 MASS21	ACEL	MODAL LOADS	REACTION LOADS		Rev. 5.0A
ELEM37	93-99	COMBIN37 ELEM37	ETABLE				Rev. 5.1
ELEM38	93-79	FLUID38 ELEM38	DAMPING				Rev. 5.1
ELEM39	93-01	ELEM39 COMBIN39					Rev. 5.1
ELEM41	93-33	SHELL41 ELEM41	CLOTH OPTION				Rev. 5.0A
ELEM41	93-89	ELEM41 SHELL41	WRINKLE OPTION				Rev. 5.0A
ELEM47	93-50	INFIN47 ELEM47	CGS	ENERGY	MA6OPT		Rev. 5.1
ELEM5	93-108	PIEZOELCTRIC ELEM5	ELEM98	ELEM13			Rev. 5.0A
ELEM50	93-100	ELEM50 MATRIX50	SUBSTRUCTURES TEMP-DEP MAT'L				Rev. 5.1
ELEM50	93-16 R1	SETRAN ELEM50	SUPERELEMENT USE PASS				Rev. 5.0A
ELEM50	93-51	ELEM50 SUBSTRUCTURE	LOAD VECTORS SFE				Rev. 5.0A
ELEM50	93-73	ELEM50 SUBSTRUCTURE	LARGE DEFLECTI EXPANSION PASS				Rev. 5.0A
ELEM50	93-90	SOLUTION ELEM50	SESYMM	ELEM50			Rev. 5.1
ELEM57	93-74	SHELL57 ELEM57	POST1	RSYS			Rev. 5.1
ELEM59	93-05	ELEM59 PIPE59	REYNOLD'S NUMB DRAG COEFFICIE				Rev. 5.0A
ELEM59	93-59	PIPE59 ELEM59	SHEAR STRESS				Rev. 5.0A
ELEM63	93-110	SHELL63 ELEM63	WARPED ELEMENT THERMAL LOAD				Rev. 5.1

5 9 1

KEYWORD	ERROR REPORT NUMBER	COMPLETE KEYWORD LIST						VERSION CORRECTED
FOUNDATION STIF	93-52	SURF19	SURF22	FOUNDATION STI				Rev. 5.1
FOUNDATION STIFF	93-26	FOUNDATION STIFF	NONLINEAR	SHELL41,63,99	BEAM44,54			Rev. 5.0A
FULL HARMONIC	93-104	SOLUTION	ANTYPE,HARMIC	FULL HARMONIC	RAMPED B.C.			Rev. 5.1
GP	93-102	GP	NODE	COMPRESS	MERGE	OFFSET		Rev. 5.1
HEAT FLUX	93-49	LOAD	HEAT FLUX	SFL	SFLDELE			Rev. 5.0A
HEAT GENERATION	92-51	STIF15	HEAT GENERATION	LUMPED SPEC HE				Rev. 5.0A
HFLUX	93-09	SFEDELE	CONV	HFLUX	LKEY			Rev. 5.0A
HROPT,FULL	93-07	ANTYPE,HARMIC	HROPT,FULL	CONSTRAINT EQN				Rev. 5.0A
HYPER84	93-107	HYPER84	HYPER86	ELEM84	ELEM86	STRAINS	THEORY MANUAL	5.0 User Manual
HYPER86	93-107	HYPER84	HYPER86	ELEM84	ELEM86	STRAINS	THEORY MANUAL	5.0 User Manual
INERTIA RELIEF	93-95	INERTIA RELIEF	STRUCT	SOLN	IRLF			Rev. 5.1
INERTIAL FORCES	93-24	TRANSIENT	INERTIAL FORCES	REACTIONS				Rev. 5.0A
INFIN47	93-50	INFIN47	ELEM47	CGS	ENERGY	MAGOPT		Rev. 5.0A
INITIAL STRAIN	93-71	PIPE59	INITIAL STRAIN	CABLE OPTION				Rev. 5.1
INTSRF	93-63	POST1	INTSRF	FLUID	AXISYMMETRIC			Rev. 5.0A
IRLF	93-95	INERTIA RELIEF	STRUCT	SOLN	IRLF			Rev. 5.1
JS	93-47	MAGNETICS	LDREAD	JS				Rev. 5.0A
KBC	93-31	SUBSTRUCTURES	KBC	AUTOTS	SFE			Rev. 5.0A
KEYPOINT	93-39	SOLID	KEYPOINT	COMPONENT	NUMMRG			Rev. 5.0A
KMODIF	93-87	SOLID	KMODIF	ATTRIBUTES				Rev. 5.1
KSWEEP	93-27	LSEL	ASEL	VSEL	KSWEEP			Rev. 5.0A
LARGE DEFLECTIO	93-25	SHELL63	ELEM63	MEMBRANE OPTIO	LARGE DEFLECTI			Rev. 5.0A
LARGE DEFLECTION	93-73	ELEM50	SUBSTRUCTURE	LARGE DEFLECTI	EXPANSION PASS			Rev. 5.0A
LARGE MODELS	93-56	SPECTRUM	PSD	LARGE MODELS				Rev. 5.0A
LCASE	93-105	POST1	LCWRITE	LCFILE	LCASE			Rev. 5.1
LCCAT	93-17	MESH	LCCAT	AMESH	VMESH			Rev. 5.0A
LCCAT	93-34	MESH	LCCAT	ACLEAR	SFLDEL	SBCDEL		Rev. 5.0A
LCDEF	93-101	POST1	LCDEF	LCFILE	WSORT	WAVES		Rev. 5.1
LCFILE	93-101	POST1	LCDEF	LCFILE	WSORT	WAVES		Rev. 5.1
LCFILE	93-105	POST1	LCWRITE	LCFILE	LCASE			Rev. 5.1
LCWRITE	93-105	POST1	LCWRITE	LCFILE	LCASE			Rev. 5.1
LDREAD	93-35	LDREAD	REACTIONS					Rev. 5.0A
LDREAD	93-47	MAGNETICS	LDREAD	JS				Rev. 5.0A
LINE/AREA ORIENT	93-64 R1	SOLID	BOOLEANS	NUMBERING	LINE/AREA ORIE	OPTIMIZATION		Rev. 5.0A
LKEY	93-09	SFEDELE	CONV	HFLUX	LKEY			Rev. 5.0A
LOAD	93-49	LOAD	HEAT FLUX	SFL	SFLDELE			Rev. 5.0A
LOAD VECTORS	93-51	ELEM50	SUBSTRUCTURE	LOAD VECTORS	SFE			Rev. 5.0A
LOADS	93-44	MUVED NODES	LOADS	SOLID MODELING				Rev. 5.0A



KEYWORD	ERROR REPORT NUMBER	COMPLETE KEYWORD LIST					VERSION CORRECTED
MPRS	93-38	SPECTRUM	PSD	MPRS			Rev. 5.0A
MPRS	93-76	SPECTRUM	PSD	BASE EXCITATIO	MPRS	MDAMP	Rev. 5.1
MPRS	93-77	SPECTRUM	PSD	MPRS			Rev. 5.1
NDELE	93-12	PREP7	MIDSIDE NODES	E	EN	NDELE	Rev. 5.0A
NLGEOM	93-10	ELEM95	SOLID95	SURFACE STRESS	NLGEOM	SYSTEM	Rev. 5.0A
NMISC	93-36	ELEM65	ETABLE	NMISC	DOCU	MANUAL	5.0 User Manual
NMISC	93-54	SHELLxx	ETABLE	NMISC	DOCU	MANUAL	5.0 User Manual
NODAL LOADS	93-58	REACTION SOLUTIO	NODAL LOADS	SYSTEM			Rev. 5.0A
NODAL LOADS	93-68	ELEM15	ELEM67	ELEM69	NODAL LOADS	REACTION LOADS SYSTEM	Rev. 5.0A
NODAL LOADS	93-69	ELEM21	MASS21	ACEL	NODAL LOADS	REACTION LOADS	Rev. 5.0A
NODE	93-102	GP	NODE	COMPRESS	MERGE	OFFSET	Rev. 5.1
NONLINEAR	93-26	FOUNDATION STIFF	NONLINEAR	SHELL41,63,99	BEAM44,54		Rev. 5.0A
NONLINEAR	93-32	PIPE20	ELEM20	NONLINEAR			Rev. 5.0A
NONLINEAR MAT'L	93-88	ELEM91	SHELL91	NONLINEAR MAT'			Rev. 5.1
NONZERO DOF	93-84	MATRIX50	TRANSIENT	DAMPING	NONZERO DOF		Rev. 5.1
NOPAR=1	93-15	APDL	RESUME	NOPAR=1	MANUAL	COMMANDS	5.0 User Manual
NSEL,,EXT	93-67	NSEL,,EXT	SF	VMESH			Rev. 5.1
NSEL,EXT	93-45 R2	SELECT	SF	NSEL,EXT			Rev. 5.0A
NSORT	93-57	POST1	NSORT	PRRSOL	PRNLD		Rev. 5.0A
NUMBERING	93-64 R1	SOLID	BOOLEANS	NUMBERING	LINE/AREA ORIE	OPTIMIZATION	Rev. 5.0A
NUMCMP	93-20	PREP7	NUMCMP	ETYPE			Rev. 5.0A
NUMMRG	93-39	SOLID	KEYPOINT	COMPONENT	NUMMRG		Rev. 5.0A
NUMMRG	93-98	NUMMRG	SOLID BC				Rev. 5.1
OFFSET	93-102	GP	NODE	COMPRESS	MERGE	OFFSET	Rev. 5.1
OPTIMIZATION	93-64 R1	SOLID	BOOLEANS	NUMBERING	LINE/AREA ORIE	OPTIMIZATION	Rev. 5.0A
PARAMETERS	93-72	*GET	ELEM	AREA	VOLU	PARAMETERS	Rev. 5.0A
PARRES	93-103	APDL	PARSAV	TABLE	PARRES		Rev. 5.1
PARSAV	93-103	APDL	PARSAV	TABLE	PARRES		Rev. 5.1
PHASE	93-91	MAGNETICS	PLANE53	BF/BFE/BFK	PHASE	VOLT-MAG OPTIO	Rev. 5.1
PICKING	93-78	PICKING	*DO	DOCUMENTATION	/BATCH		Rev. 5.0A
PIEZOELECTRIC	93-106	ELEM13	PLANE13	PIEZOELECTRIC	PLANE STRESS		Rev. 5.0A
PIEZOELECTRIC	93-108	PIEZOELECTRIC	ELEM5	ELEM98	ELEM13		Rev. 5.1
PIPE16	93-80	PIPE16	PIPE17	PIPE59	STRESS STIFFEN	THERMAL LOAD	Rev. 5.1
PIPE17	93-80	PIPE16	PIPE17	PIPE59	STRESS STIFFEN	THERMAL LOAD	Rev. 5.1
PIPE20	93-32	PIPE20	ELEM20	NONLINEAR			Rev. 5.0A
PIPE59	93-05	ELEM59	PIPE59	REYNOLD'S NUMB	DRAG COEFFICIE		Rev. 5.0A
PIPE59	93-59	PIPE59	ELEM59	SHEAR STRESS			Rev. 5.0A
PIPE59	93-71	PIPE59	INITIAL STRAIN	CABLE OPTION			Rev. 5.1

KEYWORD	ERROR REPORT NUMBER	COMPLETE KEYWORD LIST	VERSION CORRECTED
REV4,ON	93-46	REV4,ON MASS71 ELEM71	Rev. 5.0A
REYNOLD'S NUMBER	93-05	ELEM59 PIPE59 REYNOLD'S NUMB DRAG COEFFICIE	Rev. 5.0A
RSYS	93-74	SHELL57 ELEM57 POST1 RSYS	Rev. 5.1
SBCDEL	93-34	MESH LCCAT ACLEAR SFLDEL SBCDEL	Rev. 5.0A
SCALED LOADS	93-02	SURF19 ELEM19 EXPANSION PASS SCALED LOADS	Rev. 5.0A
SELECT	93-45 R2	SELECT SF NSEL,EXT	Rev. 5.0A
SESYMM	93-90	SOLUTION SUBSTRUCTURES SESYMM ELEM50	Rev. 5.1
SET	93-85	SET POST1 MANUAL	5.0 User Manual
SETRAN	93-16 R1	SETRAN ELEM50 SUPERELEMENT USE PASS	Rev. 5.0A
SF	93-45 R2	SELECT SF NSEL,EXT	Rev. 5.0A
SF	93-67	NSEL,EXT SF VMESH	Rev. 5.1
SFE	93-31	SUBSTRUCTURES KBC AUTOTS SFE	Rev. 5.0A
SFE	93-51	ELEM50 SUBSTRUCTURE LOAD VECTORS SFE	Rev. 5.0A
SFEDELE	93-09	SFEDELE CONV HFLUX LKEY	Rev. 5.0A
SFFUN	93-66	LSSOLVE LOADS xCUM SFFUN	Rev. 5.0A
SFL	93-49	LOAD HEAT FLUX SFL SFLDELE	Rev. 5.0A
SFLDEL	93-34	MESH LCCAT ACLEAR SFLDEL SBCDEL	Rev. 5.0A
SFLDELE	93-49	LOAD HEAT FLUX SFL SFLDELE	Rev. 5.0A
SHEAR STRESS	93-59	PIPE59 ELEM59 SHEAR STRESS	Rev. 5.0A
SHELL41	93-33	SHELL41 ELEM41 CLOTH OPTI	Rev. 5.0A
SHELL41	93-89	ELEM41 SHELL41 WRINKLE TION	Rev. 5.1
SHELL41,63,99	93-26	FOUNDATION STIFF NONLINEAR SHELL41,63,99 BEAM44,54	Rev. 5.0A
SHELL57	93-74	SHELL57 ELEM57 POST1 RSYS	Rev. 5.1
SHELL63	93-110	SHELL63 ELEM63 WARPED ELEMENT THERMAL LOAD	Rev. 5.1
SHELL63	93-25	SHELL63 ELEM63 MEMBRANE OPTIO LARGE DEFLECTI	Rev. 5.0A
SHELL91	93-88	ELEM91 SHELL91 NONLINEAR MAT'	Rev. 5.1
SHELLXX	93-54	SHELLxx ETABLE NMISC DOCU MANUAL	5.0 User Manual
SMISC	93-55	BEAM44 POST1 ETABLE SMISC DOCU MANUAL	5.0 User Manual
SOLID	93-23	ASUM VSUM SOLID	Rev. 5.0A
SOLID	93-29	VDRAG SOLID	Rev. 5.0A
SOLID	93-30	SOLID BOUNDARY COND REDUCED DYNAMI MODE SUPERPOSN	Rev. 5.0A
SOLID	93-39	SOLID KEYPOINT COMPONENT NUMMRG	Rev. 5.0A
SOLID	93-64 R1	SOLID BOOLEANS NUMBERING LINE/AREA ORIE OPTIMIZATION	Rev. 5.0A
SOLID	93-87	SOLID KMODIF ATTRIBUTES	Rev. 5.1
SOLID BC	93-98	NUMMRG SOLID BC	Rev. 5.1
SOLID MODEL	93-65	SOLID MODEL BODY FORCES BFKDEL,HGEN	Rev. 5.0A
SOLID MODEL BC	93-13	MESH LSSOLVE SOLID MODEL BC	Rev. 5.0A
SOLID MODELING	93-44	MOVED NODES LGADS SOLID MODELING	Rev. 5.0A

KEYWORD	ERROR REPORT NUMBER	COMPLETE KEYWORD LIST					VERSION CORRECTED
TABLE	93-103	APDL	PARSAV	TABLE	PARRES		Rev. 5.1
TB	93-43	TB	TBEDIT	MISO	BH	WATER	Rev. 5.0A
TBEDIT	93-43	TB	TBEDIT	MISO	BH	WATER	Rev. 5.0A
TEMP-DEP MAT'LS	93-100	ELEM50	MATRIX50	SUBSTRUCTURES	TEMP-DEP MAT'L		Rev. 5.1
THEORY MANUAL	93-107	HYPER84	HYPER86	ELEM84	ELEM86	STRAINS THEORY MANUAL	5.0 User Manual
THERMAL LOAD	93-110	SHELL63	ELEM63	WARPED ELEMENT	THERMAL LOAD		Rev. 5.1
THERMAL LOAD	93-80	PIPE16	PIPE17	PIPE59	STRESS STIFFEN	THERMAL LOAD	Rev. 5.1
THERMAL STRAINS	93-70	PLANE13	ELEM13	ERESX	THERMAL STRAIN		Rev. 5.0A
TRANSIENT	93-24	TRANSIENT	INERTIAL FORCES	REACTIONS			Rev. 5.0A
TRANSIENT	93-84	MATRIX50	TRANSIENT	DAMPING	NONZERO DOF		Rev. 5.1
UNSYMMETRIC	88-37 R3	CONSTRAINT EQNS	UNSYMMETRIC	STIFX	STIF15,27,30,5	STIF55,56,66,7	Rev. 5.1
USE PASS	93-16 R1	SETRAN	ELEM50	SUPERELEMENT	USE PASS		Rev. 5.0A
VDRAG	93-29	VDRAG	SOLID				Rev. 5.0A
VMESH	93-17	MESH	LCCAT	AMESH	VMESH		Rev. 5.0A
VMESH	93-67	NSEL,,EXT	SF	VMESH			Rev. 5.1
VOLT-MAG OPTION	93-91	MAGNETICS	PLANE53	BF/BFE/BFK	PHASE	VOLT-MAG OPTIO	Rev. 5.1
VOLU	93-72	*GET	ELEM	AREA	VOLU	PARAMETERS	Rev. 5.0A
VSEL	93-27	LSEL	ASEL	VSEL	KSWEEP		Rev. 5.0A
VSUM	93-23	ASUM	VSUM	SOLID			Rev. 5.0A
WARPED ELEMENT	93-110	SHELL63	ELEM63	WARPED ELEMENT	THERMAL LOAD		Rev. 5.1
WATER	93-43	TB	TBEDIT	MISO	BH	WATER	Rev. 5.0A
WAVES	93-101	POST1	LCDEF	LCFILE	WSORT	WAVES	Rev. 5.1
WRINKLE OPTION	93-89	ELEM41	SHELL41	WRINKLE OPTION			Rev. 5.1
WSORT	93-101	POST1	LCDEF	LCFILE	WSORT	WAVES	Rev. 5.1
XCUM	93-66	LSSOLVE	LOADS	XCUM	SFFUN		Rev. 5.0A

## ANSYS 5.0A CLASS3 ERROR SUMMARY BY REPORT NUMBER

ERROR NUMBER	KEYWORD #1	KEYWORD #2	KEYWORD #3	KEYWORD #4	KEYWORD #5	KEYWORD #6	CORRECTED VERSION
88-37 R3	CONSTRAINT EQNS	UNSYMMETRIC	STIFX	STIF15,27,30,50	STIF55,56,66,70		Rev. 5.1
93-52	SURF19	SURF22	FOUNDATION STIF				Rev. 5.1
93-60	SOLID96	ELEM96	RESTRICTIONS	CMVP FORMULATIO			5.0 User Manual
93-67	NSEL, ,EXT	SF	VMESH				Rev. 5.1
93-71	PIPE59	INITIAL STRAIN	CABLE OPTION				Rev. 5.1
93-74	SHELL57	ELEM57	POST1	RSYS			Rev. 5.1
93-75	SPECTRUM	MCOMB,GRP					Rev. 5.1
93-76	SPECTRUM	PSD	BASE EXCITATION	MPRS	MDAMP		Rev. 5.1
93-77	SPECTRUM	PSD	MPRS				Rev. 5.1
93-79	FLUID38	ELEM38	DAMPING				Rev. 5.1
93-80	PIPE16	PIPE17	PIPE59	STRESS STIFFENI	THERMAL LOAD		Rev. 5.1
93-81	ESYS	AXISYMMETRIC EL	MANUAL				5.0 User Manual
93-82	LDREAD	REACTION FORCES					Rev. 5.1
93-83	FLUID66	ELEM66	CONVECTION				Rev. 5.1
93-84	MATRIX50	TRANSIENT	DAMPING	NONZERO DOF			Rev. 5.1
93-85	SET	POST1	MANUAL				5.0 User Manual
93-86	FLUID	FLOTRAN	AXISYMMETRIC	FLWRITE			Rev. 5.1
93-87	SOLID	KMODIF	ATTRIBUTES				Rev. 5.1
93-88	ELEM91	SHELL91	NONLINEAR MAT'L				Rev. 5.1
93-89	ELEM41	SHELL41	WRINKLE OPTION				Rev. 5.1
93-90	SOLUTION	SUBSTRUCTURES	SESYM	ELEM50			Rev. 5.1
93-91	MAGNETICS	PLANE53	BF/BFE/BFK	PHASE	VOLT-MAG OPTION		Rev. 5.1
93-92	LOCAL COORD SYS	*GET	CDWRITE	CS	CSKP	ANGLES	Rev. 5.1
93-93	ELEM90	SOLID90	ELEM95	SOLID95	CEINTE		Rev. 5.1
93-95	INERTIA RELIEF	STRUCT	SOLN	IRLF			Rev. 5.1
93-96	POST26	STORE,ALLOC	STORE,MERGE				Rev. 5.1
93-97	ATTRIBUTES	EGEN	ESYM	PROC MANUAL			5.0 User Manual
93-98	NUMMRG	SOLID BC					Rev. 5.1
93-99	COMBIN37	ELEM37	ETABLE				Rev. 5.1
93-100	ELEM50	MATRIX50	SUBSTRUCTURES	TEMP-DEP MAT'LS			Rev. 5.1
93-101	POST1	LCDEF	LCFILE	WSORT	WAVES		Rev. 5.1
93-102	GP	NODE	COMPRESS	MERGE	OFFSET		Rev. 5.1
93-103	APDL	PARSAV	TABLE	PARRES			Rev. 5.1
93-104	SOLUTION	ANTYPE,HARMIC	FULL HARMONIC	RAMPED B.C.			Rev. 5.1
93-105	POST1	LCWRITE	LCFILE	LCASE			Rev. 5.1
93-107	HYPER84	HYPER86	ELEM84	ELEM86	STRAINS	THEORY MANUAL	5.0 User Manual
93-108	PIEZOELECTRIC	ELEM5	ELEM98	ELEM13			Rev. 5.1

# ANSYS 5.0A CLASS3 ERROR SUMMARY

## KEYWORD SORT OF ALL REVISION 5.0A CLASS3 ERRORS

Date of this report: 12/28/93

KEYWORD	ERROR REPORT NUMBER	COMPLETE KEYWORD LIST					VERSION CORRECTED	
*GET	93-92	LOCAL COORD SYST	*GET	CDWRITE	CS	CSKP	ANGLES	Rev. 5.1
ANGLES	93-92	LOCAL COORD SYST	*GET	CDWRITE	CS	CSKP	ANGLES	Rev. 5.1
ANTYPE,HARMIC	93-104	SOLUTION	ANTYPE,HARMIC	FULL HARMONIC	RAMPED B.C.			Rev. 5.1
APDL	93-103	APDL	PARSAV	TABLE	PARRES			Rev. 5.1
ATTRIBUTES	93-87	SOLID	KMODIF	ATTRIBUTES				Rev. 5.1
ATTRIBUTES	93-97	ATTRIBUTES	EGEN	ESYM	PROC MANUAL			5.0 User Manual
AXISYMMETRIC	93-86	FLUID	FLOTRAN	AXISYMMETRIC	FLWRITE			Rev. 5.1
AXISYMMETRIC EL	93-81	ESYS	AXISYMMETRIC EL	MANUAL				5.0 User Manual
BASE EXCITATIONM	93-76	SPECTRUM	PSD	BASE EXCITATIO	MPRS	MDAMP		Rev. 5.1
BF/BFE/BFK	93-91	MAGNETICS	PLANE53	BF/BFE/BFK	PHASE	VOLT-MAG OPTIG		Rev. 5.1
CABLE OPTION	93-71	PIPE59	INITIAL STRAIN	CABLE OPTION				Rev. 5.1
CDWRITE	93-92	LOCAL COORD SYST	*GET	CDWRITE	CS	CSKP	ANGLES	Rev. 5.1
CECMOD	93-109	LSWRITE	CECMOD	LSSOLVE				Rev. 5.1
CEINTF	93-93	ELEM90	SOLID90	ELEM95	SOLID95	CEINTF		Rev. 5.1
CMVP FORMULATION	93-60	SOLID96	ELEM96	RESTRICTIONS	CMVP FORMULATI			5.0 User Manual
COMBIN37	93-99	COMBIN37	ELEM37	ETABLE				Rev. 5.1
COMPRESS	93-102	GP	NODE	COMPRESS	MERGE	OFFSET		Rev. 5.1
CONSTRAINT EQNS	88-37 R3	CONSTRAINT EQNS	UNSYMMETRIC	STIFX	STIF15,27,30,5	STIF55,56,66,7		Rev. 5.1
CONVECTION	93-83	FLUID66	ELEM66	CONVECTION				Rev. 5.1
CS	93-92	LOCAL COORD SYST	*GET	CDWRITE	CS	CSKP	ANGLES	Rev. 5.1
CSKP	93-92	LOCAL COORD SYST	*GET	CDWRITE	CS	CSKP	ANGLES	Rev. 5.1
DAMPING	93-111	PROCEDURE MANUAL	MODAL	DAMPING	MATERIAL			5.0 User Manual
DAMPING	93-79	FLUID38	ELEM38	DAMPING				Rev. 5.1
DAMPING	93-84	MATRIX50	TRANSIENT	DAMPING	NONZERO DOF			Rev. 5.1
EGEN	93-97	ATTRIBUTES	EGEN	ESYM	PROC MANUAL			5.0 User Manual
ELEM13	93-108	PIEZOELECTRIC	ELEM5	ELEM98	ELEM13			Rev. 5.1
ELEM37	93-99	COMBIN37	ELEM37	ETABLE				Rev. 5.1
ELEM38	93-79	FLUID38	ELEM38	DAMPING				Rev. 5.1
ELEM41	93-89	ELEM41	SHELL41	WRINKLE OPTION				Rev. 5.1
ELEM5	93-108	PIEZOELECTRIC	ELEM5	ELEM98	ELEM13			Rev. 5.1
ELEM50	93-100	ELEM50	MATRIX50	SUBSTRUCTURES	TEMP-DEP MAT'L			Rev. 5.1
ELEM50	93-73	ELEM50	SUBSTRUCTURE	LARGE DEFLECTI	EXPANSION PASS			Rev. 5.0A
ELEM50	93-90	SOLUTION	SUBSTRUCTURES	SESYMM	ELEM50			Rev. 5.1

KEYWORD	ERROR REPORT NUMBER	COMPLETE KEYWORD LIST					VERSION CORRECTED
MAGNETICS	93-91	MAGNETICS	PLANES3	BF/BFE/BFK	PHASE	VOLT-MAG OPTIO	Rev. 5.1
MANUAL	93-81	ESYS	AXISYMMETRIC EL	MANUAL			5.0 User Manual
MANUAL	93-85	SET	POST1	MANUAL			5.0 User Manual
MATERIAL	93-111	PROCEDURE MANUAL	MODAL	DAMPING	MATERIAL		5.0 User Manual
MATRIX50	93-100	ELEM50	MATRIX50	SUBSTRUCTURES	TEMP-DEP MAT'L		Rev. 5.1
MATRIX50	93-84	MATRIX50	TRANSIENT	DAMPING	NONZERO DOF		Rev. 5.1
MCOMB,GRP	93-75	SPECTRUM	MCOMB,GRP				Rev. 5.1
MDAMP	93-76	SPECTRUM	PSD	BASE EXCITATIO	MPRS	MDAMP	Rev. 5.1
MERGE	93-102	GP	NODE	COMPRESS	MERGE	OFFSET	Rev. 5.1
MODAL	93-111	PROCEDURE MANUAL	MODAL	DAMPING	MATERIAL		5.0 User Manual
MPRS	93-76	SPECTRUM	PSD	BASE EXCITATIO	MPRS	MDAMP	Rev. 5.1
MPRS	93-77	SPECTRUM	PSD	MPRS			Rev. 5.1
NODE	93-102	GP	NODE	COMPRESS	MERGE	OFFSET	Rev. 5.1
NONLINEAR MAT'L	93-88	ELEM91	SHELL91	NONLINEAR MAT'			Rev. 5.1
NONZERO DOF	93-84	MATRIX50	TRANSIENT	DAMPING	NONZERO DOF		Rev. 5.1
NSEL,,EXT	93-67	NSEL,,EXT	SF	VMESH			Rev. 5.0A
NUMMRG	93-98	NUMMRG	SOLID BC				Rev. 5.1
OFFSET	93-102	GP	NODE	COMPRESS	MERGE	OFFSET	Rev. 5.1
PARRES	93-103	APDL	PARSAV	TABLE	PARRES		Rev. 5.1
PARSAV	93-103	APDL	PARSAV	TABLE	PARRES		Rev. 5.1
PHASE	93-91	MAGNETICS	PLANES3	BF/BFE/BFK	PHASE	VOLT-MAG OPTIO	Rev. 5.1
PIEZOELECTRIC	93-108	PIEZOELECTRIC	ELEM5	ELEM98	ELEM13		Rev. 5.1
PIPE16	93-80	PIPE16	PIPE17	PIPE59	STRESS STIFFEN THERMAL LOAD		Rev. 5.1
PIPE17	93-80	PIPE16	PIPE17	PIPE59	STRESS STIFFEN THERMAL LOAD		Rev. 5.1
PIPE59	93-71	PIPE59	INITIAL STRAIN	CABLE OPTION			Rev. 5.1
PIPE59	93-80	PIPE16	PIPE17	PIPE59	STRESS STIFFEN THERMAL LOAD		Rev. 5.1
PLANES3	93-91	MAGNETICS	PLANES3	BF/BFE/BFK	PHASE	VOLT-MAG OPTIO	Rev. 5.1
POST1	93-101	POST1	LCDEF	LCFILE	WSORT	WAVES	Rev. 5.1
POST1	93-105	POST1	LCWRITE	LCFILE	LCASE		Rev. 5.1
POST1	93-74	SHELL57	ELEM57	POST1	RSYS		Rev. 5.1
POST1	93-85	SET	POST1	MANUAL			5.0 User Manual
POST26	93-96	POST26	STORE,ALLOC	STORE,MERGE			Rev. 5.1
PROC MANUAL	93-97	ATTRIBUTES	EGEN	ESYM	PROC MANUAL		5.0 User Manual
PROCEDURE MANUAL	93-111	PROCEDURE MANUAL	MODAL	DAMPING	MATERIAL		5.0 User Manual
PSD	93-76	SPECTRUM	PSD	BASE EXCITATIO	MPRS	MDAMP	Rev. 5.1
PSD	93-77	SPECTRUM	PSD	MPRS			Rev. 5.1
RAMPED B.C.	93-104	SOLUTION	ANTYPE,HARMIC	FULL HARMONIC	RAMPED B.C.		Rev. 5.1
REACTION FORCES	93-82	LOREAD	REACTION FORCES				Rev. 5.1



KEYWORD	ERROR REPORT NUMBER		COMPLETE KEYWORD LIST			VERSION CORRECTED
TRANSIENT	93-84	MATRIX50	TRANSIENT	DAMPING	NONZERO DOF	Rev. 5.1
UNSYMMETRIC	88-37 R3	CONSTRAINT EQNS	UNSYMMETRIC	STIFX	STIF15,27,30,5 STIF55,56,66,7	Rev. 5.1
VMESH	93-67	NSEL,,EXT	SF	VMESH		Rev. 5.0A
VOLT-MAG OPTION	93-91	MAGNETICS	PLANE53	BF/BFE/BFK	PHASE VOLT-MAG OPTIO	Rev. 5.1
WARPED ELEMENT	93-110	SHELL63	ELEM63	WARPED ELEMENT	THERMAL LOAD	Rev. 5.1
WAVES	93-101	POST1	LCDEF	LCFILE	WSORT WAVES	Rev. 5.1
WRINKLE OPTION	93-89	ELEM41	SHELL41	WRINKLE OPTION		Rev. 5.1
WSORT	93-101	POST1	LCDEF	LCFILE	WSORT WAVES	Rev. 5.1