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*****************************************************
*                                                   *
*           STAAD.Pro                               *
*           Version  2007    Build 04               *
*           Proprietary Program of                  *
*           Research Engineers,  Intl.              *
*           Date=    JUL 24, 2013                   *
*           Time=    18:18:56                       *
*                                                   *
*      USER ID: Hewlett-Packard                     *
*****************************************************
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     1. STAAD SPACE
INPUT FILE: Structure1.STD
     2. START JOB INFORMATION
     3. ENGINEER DATE 19-JUL-13
     4. END JOB INFORMATION
     5. INPUT WIDTH 79
     6. UNIT INCHES POUND
     7. JOINT COORDINATES
     8. 1 0 0 0
     9. 2 0 100 0
    10. 3 100 100 0
    11. 4 100 0 0
    12. MEMBER INCIDENCES
    13. 1         1         2
    14. 2         2         3
    15. 3         3         4
    16. DEFINE MATERIAL START
    17. ISOTROPIC STEEL
    18. E 2.9E+007
    19. POISSON 0.3
    20. DENSITY 0.283
    21. ALPHA 6.5E-006
    22. DAMP 0.03
    23. END DEFINE MATERIAL
    24. MEMBER PROPERTY EUROPEAN
    25. 1 TO 3 TABLE ST IPE100
    26. CONSTANTS
    27. MATERIAL STEEL ALL
    28. SUPPORTS
    29. 1 4 FIXED
    30. LOAD 1 LOADTYPE LIVE  TITLE LOAD CASE 1
    31. JOINT LOAD
    32. 3 FX 500
    33. PERFORM ANALYSIS
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P R O B L E M S T A T I S T I C S

NUMBER OF JOINTS/MEMBER+ELEMENTS/SUPPORTS = 4/ 3/ 2

SOLVER USED IS THE OUT-OF-CORE BASIC SOLVER

ORIGINAL/FINAL BAND-WIDTH= 1/ 1/ 12 DOF
TOTAL PRIMARY LOAD CASES = 1, TOTAL DEGREES OF FREEDOM = 12
SIZE OF STIFFNESS MATRIX = 1 DOUBLE KILO-WORDS
REQRD/AVAIL. DISK SPACE = 12.0/ 231107.3 MB

34. PRINT ALL

JOINT COORDINATES

COORDINATES ARE INCH UNIT

JOINT	X	Y	Z
1	0.000	0.000	0.000
2	0.000	100.000	0.000
3	100.000	100.000	0.000
4	100.000	0.000	0.000

MEMBER INFORMATION

MEMBER	START JOINT	END JOINT	LENGTH (INCH)	BETA (DEG)	RELEASES
1	1	2	100.000	0.00	
2	2	3	100.000	0.00	
3	3	4	100.000	0.00	

MATERIAL PROPERTIES.

ALL UNITS ARE - POUN INCH

MATERIAL	KIND	E	POIS	DENS	ALPHA	DAMP	G
STEEL	1D	2.90000E+07	0.300	2.83000E-01	6.50000E-06	0.030	1.11538E+07

MATERIAL PROPERTIES.

ALL UNITS ARE - POUN INCH

MEMBER	E	G	DEN	ALPHA
1	29000000.0	11153846.0	0.28299999	0.00000650
2	29000000.0	11153846.0	0.28299999	0.00000650
3	29000000.0	11153846.0	0.28299999	0.00000650

MEMBER PROPERTIES. UNIT - INCH

MEMB	PROFILE	AX/ AY	IZ/ AZ	IY/ SZ	IX/ SY
1	ST IPE100	1.60	4.11	0.38	0.03
		0.64	0.65	2.09	0.36
2	ST IPE100	1.60	4.11	0.38	0.03
		0.64	0.65	2.09	0.36
3	ST IPE100	1.60	4.11	0.38	0.03
		0.64	0.65	2.09	0.36

SUPPORT INFORMATION (1=FIXED, 0=RELEASED)

UNITS FOR SPRING CONSTANTS ARE POUN INCH DEGREES

JOINT	FORCE-X/ KFX	FORCE-Y/ KFY	FORCE-Z/ KFZ	MOM-X/ KMX	MOM-Y/ KMY	MOM-Z/ KMZ
1	1	1	1	1	1	1
	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00	0.000E+00	0.000E+00
4	1	1	1	1	1	1
	0.0000E+00	0.0000E+00	0.0000E+00	0.000E+00	0.000E+00	0.000E+00

********** END OF DATA FROM INTERNAL STORAGE **********

35. PRINT JOINT DISPLACEMENTS ALL

JOINT DISPLACEMENT (INCH RADIANS) STRUCTURE TYPE = SPACE

JOINT	LOAD	X-TRANS	Y-TRANS	Z-TRANS	X-ROTAN	Y-ROTAN	Z-ROTAN
1	1	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
2	1	0.25475	0.00046	0.00000	0.00000	0.00000	-0.00153
3	1	0.25529	-0.00046	0.00000	0.00000	0.00000	-0.00154
4	1	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

********** END OF LATEST ANALYSIS RESULT **********

36. LOAD LIST ALL
37. PRINT MEMBER FORCES ALL

MEMBER END FORCES STRUCTURE TYPE = SPACE

ALL UNITS ARE -- POUN INCH (LOCAL)

MEMBER	LOAD	JT	AXIAL	SHEAR-Y	SHEAR-Z	TORSION	MOM-Y	MOM-Z
1	1	1	-213.48	249.81	0.00	0.00	0.00	14313.16
		2	213.48	-249.81	0.00	0.00	0.00	10667.75
2	1	2	-249.81	-213.48	0.00	0.00	0.00	-10667.75
		3	249.81	213.48	0.00	0.00	0.00	-10680.48
3	1	3	213.48	250.19	0.00	0.00	0.00	10680.48
		4	-213.48	-250.19	0.00	0.00	0.00	14338.62

********** END OF LATEST ANALYSIS RESULT **********

38. PRINT MEMBER FORCES GLOBAL ALL

MEMBER END FORCES STRUCTURE TYPE = SPACE

ALL UNITS ARE -- POUN INCH (GLOBAL)

MEMBER	LOAD	JT	FX	FY	FZ	MX	MY	MZ
1	1	1	-249.81	-213.48	0.00	0.00	0.00	14313.16
		2	249.81	213.48	0.00	0.00	0.00	10667.75
2	1	2	-249.81	-213.48	0.00	0.00	0.00	-10667.75
		3	249.81	213.48	0.00	0.00	0.00	-10680.48
3	1	3	250.19	-213.48	0.00	0.00	0.00	10680.48
		4	-250.19	213.48	0.00	0.00	0.00	14338.62

********** END OF LATEST ANALYSIS RESULT **********

39. PRINT MEMBER STRESSES ALL

MEMBER STRESSES

ALL UNITS ARE POUN/SQ INCH

MEMB	LD	SECT	AXIAL	BEND-Y	BEND-Z	COMBINED	SHEAR-Y	SHEAR-Z
1	1	.0	133.7 T	0.0	6858.2	6991.9	432.3	0.0
		1.00	133.7 T	0.0	5111.5	5245.2	432.3	0.0
2	1	.0	156.5 T	0.0	5111.5	5268.0	369.4	0.0
		1.00	156.5 T	0.0	5117.6	5274.1	369.4	0.0
3	1	.0	133.7 C	0.0	5117.6	5251.3	432.9	0.0
		1.00	133.7 C	0.0	6870.4	7004.1	432.9	0.0

********** END OF LATEST ANALYSIS RESULT **********

40. PRINT SUPPORT REACTION ALL

SUPPORT REACTIONS -UNIT POUN INCH STRUCTURE TYPE = SPACE

JOINT	LOAD	FORCE-X	FORCE-Y	FORCE-Z	MOM-X	MOM-Y	MOM Z
1	1	-249.81	-213.48	0.00	0.00	0.00	14313.16
4	1	-250.19	213.48	0.00	0.00	0.00	14338.62

********** END OF LATEST ANALYSIS RESULT **********

41. FINISH

********** END OF THE STAAD.Pro RUN **********

**** DATE= JUL 24,2013 TIME= 18:18:56 ****

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*         For questions on STAAD.Pro, please contact       *
*   Research Engineers Offices at the following locations  *
*                                                          *
*               Telephone               Email              *
*  USA:      +1 (714)974-2500       support@bentley.com     *
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*  UK        +44(1454)207-000       support@bentley.com     *
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*  SINGAPORE +65 6225-6158          support@bentley.com     *
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