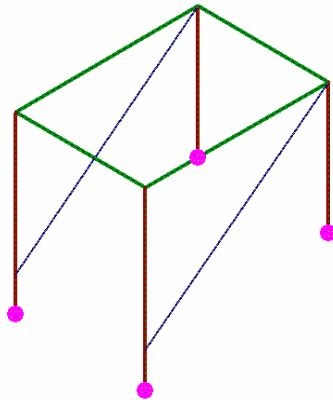


Comparison between Sargon, NXNASTRAN and NEiNASTRAN			
TEST 06	VALIDATION, CROSS CHECKS, RELIABILITY, BENCHMARK	Marco Croci	05/04/2007



	Sargon (Clever)	NXNASTRAN	$\Delta_{rel}$	NEiNASTRAN	$\Delta_{rel}$
Model Name	tes06.WSR	tes06000.dat		tes06.NAS	
Output file	tes06.CEN	tes06000.f06		tes06.OUT	
Q1	-2,651E-03	-2,651E-03	0,000E+00	-2,651E-03	0,000E+00
Q2	-3,633E+01	-3,633E+01	0,000E+00	-3,633E+01	0,000E+00
Q3	-1,194E-01	-1,194E-01	0,000E+00	-1,194E-01	0,000E+00
Q4	-3,606E-03	-3,606E-03	0,000E+00	-3,606E-03	0,000E+00
Q5	3,717E+00	3,717E+00	0,000E+00	3,717E+00	0,000E+00
Q6	-1,165E+05	-1,165E+05	0,000E+00	-1,165E+05	0,000E+00
Q7	2,016E+02	2,038E+02	<b>-1,079E-02</b>	2,016E+02	0,000E+00
Q8	2,110E+05	2,133E+05	<b>-1,078E-02</b>	2,110E+05	0,000E+00
Q9	9,809E+02	9,809E+02	0,000E+00	9,809E+02	0,000E+00
Q10	2,571E+05	2,570E+05	3,891E-04	2,571E+05	0,000E+00

**Compared Values:**

- Q1 = Load Set 1 - Node 8 - Dz
- Q2 = Load Set 2 - Node 12 - Dx
- Q3 = Load Set 2 - Node 11 -Rz
- Q4 = Load Set 2 - Node 9 - Ry
- Q5 = Load Set 1 - Node 7 - Force Ty on Constraint
- Q6 = Load Set 2 - Node 7 - Moment Mz on Constraint
- Q7 = Load Set 2 - Node 14 - Force Ty on Constraint
- Q8 = Load Set 2 - Node 13 - Moment Mx on Constraint
- Q9 = Load Set 1 - Element Beam 6 - Bending Moment M3(End2)
- Q10= Load Set 2 - Element Truss 1 - Axial Force (End2)

Translations: [mm] Forces: [N] Moments [Nmm]

$\Delta_{rel}$  is computed between Sargon and NX and between Sargon and NEi (see introduction).

NXNASTRAN and NEiNASTRAN values are rounded up to 4 significant digits; in some cases sign of moment value is changed in order to use the same Sargon rule.

See attached file tes06\_constraints.txt for comparison between all constraint reactions