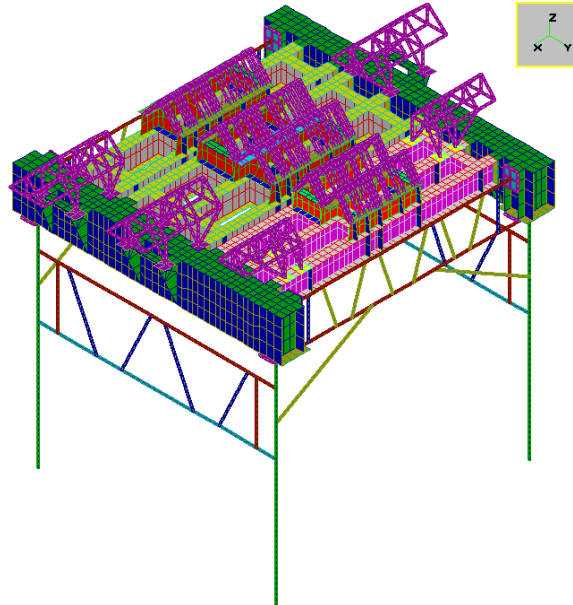


Comparison between Sargon (V8.42), NXNASTRAN and NEiNASTRAN						
TEST 40	VALIDATION, CROSS CHECKS, RELIABILITY, BENCHMARK				Marco Croci	10/04/2008



	Sargon (Clever)	NXNASTRAN	% errNX	NEiNASTRAN	% errNE
Model Name	tes40.WSR	tes40000.dat		tes40.NAS	
Output file	tes40.CEN	tes40000.f06		tes40.OUT	
Q1	-1,355E+00	-1,356E+00	-0,094	-1,354E+00	0,066
Q2	-1,395E-01	-1,395E-01	0,014	-1,396E-01	-0,057
Q3	-1,136E-01	-1,133E-01	0,229	-1,132E-01	0,327
Q4	-1,300E+00	-1,301E+00	-0,099	-1,299E+00	0,043
Q5	1,783E-01	1,783E-01	-0,017	1,784E-01	-0,050
Q6	-2,895E+05	-2,895E+05	-0,008	-2,895E+05	-0,003
Q7	-8,614E+04	-8,614E+04	-0,005	-8,615E+04	-0,017
Q8	1,431E+01	1,414E+01	1,194	1,432E+01	-0,054
Q9	3,285E+05	3,285E+05	-0,009	3,285E+05	-0,013
Q10	-1,768E+07	-1,769E+07	-0,044	-1,769E+07	-0,076

Compared Values:

Q1 = Load Set 1 - Node 2866 - Dz
 Q2 = Load Set 1 - Node 5415 - Dz
 Q3 = Load Set 1 - Node 296 - Dz
 Q4 = Load Set 1 - Node 3446 - Dz
 Q5 = Load Set 1 - Node 5255 - Dx
 Q6 = Load Set 1 - Beam element 17 - Axial force (End1)
 Q7 = Load Set 1 - Beam element 59 - Torque Mx (End1)
 Q8 = Load Set 1 - Node 373 on plate shell element 1977 - Von Mises stress
 Q9 = Load Set 1 - Node 5251 - Force Tz on Constraint
 Q10 = Load Set 1 - Node 5251 - Moment My on Constraint

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

% errNX = (Sargon - NX) / NX * 100; % errNE = (Sargon - NE) / NE * 100

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.

Model data:

Degrees of freedom = 34494
 Beam elements = 791
 Plate shell elements = 5544
 Solid elements = 40