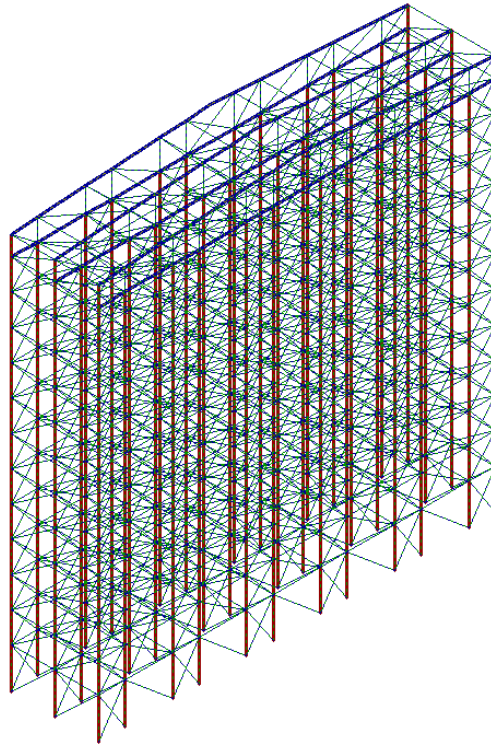


<b>Comparison between Sargon (V9.01), NXNASTRAN and NEiNASTRAN</b>					
<b>TEST 68</b>	<b>VALIDATION, CROSS CHECKS, RELIABILITY, BENCHMARK</b>	<b>Marco Croci</b>	<b>02/12/2008</b>		



	<b>Sargon (Clever)</b>	<b>NXNASTRAN</b>	<b>% errNX</b>	<b>NEiNASTRAN</b>	<b>% errNE</b>
<b>Model Name</b>	tes68.WSR	tes68000.dat		tes68.NAS	
<b>Output file</b>	tes68.CEN	tes68000.f06		tes68.OUT	
Q1	-3,793E+00	-3,793E+00	-0,002	-3,793E+00	-0,002
Q2	1,871E+00	1,871E+00	-0,012	1,871E+00	-0,011
Q3	1,005E+03	1,005E+03	0,004	1,005E+03	0,005
Q4	1,123E+05	1,123E+05	0,031	1,123E+05	0,031
Q5	7,144E+04	7,144E+04	-0,006	7,144E+04	-0,006

### Compared Values:

Q1 = Load Set 1 - Node 494 - Dz  
 Q2 = Load Set 1 - Node 264 - Dy  
 Q3 = Load Set 1 - Truss element 1235 - Axial Force  
 Q4 = Load Set 1 - Node 36 - Constraint Force Tz  
 Q5 = Load Set 1 - Node 39 - Constraint Force Tz

Translations: [mm] Forces: [N] Moments [Nmm]  
 $\% \text{ errNX} = (\text{Sargon} - \text{NX}) / \text{NX} * 100$ ;  $\% \text{ errNE} = (\text{Sargon} - \text{NE}) / \text{NE} * 100$   
 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 = 2826  
 Beam elements = 507  
 Truss elements = 1665