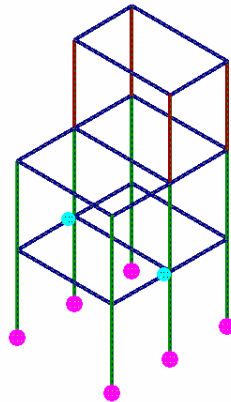


| Comparison between Sargon, NXNASTRAN and NEiNASTRAN |                                                  |             |            |
|-----------------------------------------------------|--------------------------------------------------|-------------|------------|
| TEST 07                                             | VALIDATION, CROSS CHECKS, RELIABILITY, BENCHMARK | Marco Croci | 05/04/2007 |



|             | Sargon<br>(Clever) | NXNASTRAN    | $\Delta_{rel}$ | NEiNASTRAN | $\Delta_{rel}$ |
|-------------|--------------------|--------------|----------------|------------|----------------|
| Model Name  | tes07.WSR          | tes07000.dat |                | tes07.NAS  |                |
| Output file | tes07.CEN          | tes07000.f06 |                | tes07.OUT  |                |
| Q1          | -2,789E-02         | -2,789E-02   | 0,000E+00      | -2,789E-02 | 0,000E+00      |
| Q2          | -2,890E-01         | -2,890E-01   | 0,000E+00      | -2,890E-01 | 0,000E+00      |
| Q3          | -1,089E-01         | -1,089E-01   | 0,000E+00      | -1,089E-01 | 0,000E+00      |
| Q4          | 3,669E-04          | 3,669E-04    | 0,000E+00      | 3,669E-04  | 0,000E+00      |
| Q5          | 1,200E+04          | 1,200E+04    | 0,000E+00      | 1,200E+04  | 0,000E+00      |
| Q6          | 2,923E+06          | 2,923E+06    | 0,000E+00      | 2,923E+06  | 0,000E+00      |
| Q7          | 7,810E+04          | 7,810E+04    | 0,000E+00      | 7,810E+04  | 0,000E+00      |
| Q8          | -1,200E+04         | -1,200E+04   | 0,000E+00      | -1,200E+04 | 0,000E+00      |
| Q9          | -9,697E+07         | -9,697E+07   | 0,000E+00      | -9,697E+07 | 0,000E+00      |
| Q10         | 3,672E+07          | 3,672E+07    | 0,000E+00      | 3,672E+07  | 0,000E+00      |

### Compared Values:

Q1 = Load Set 1 - Node 17 - Dz  
 Q2 = Load Set 2 - Node 20 - Dz  
 Q3 = Load Set 3 - Node 27 - Dx  
 Q4 = Load Set 3 - Node 22 - Ry  
 Q5 = Load Set 1 - Node 24 - Force Tz on Constraint  
 Q6 = Load Set 2 - Node 14 - Moment Mx on Constraint  
 Q7 = Load Set 3 - Node 14 - Force Tz on Constraint  
 Q8 = Load Set 1 - Element Beam 6 - Axial Force (End2)  
 Q9 = Load Set 2 - Element Beam 21 - Bending Moment M2 (End2)  
 Q10 = Load Set 3 - Element Beam 22 - Bending Moment M2 (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.