



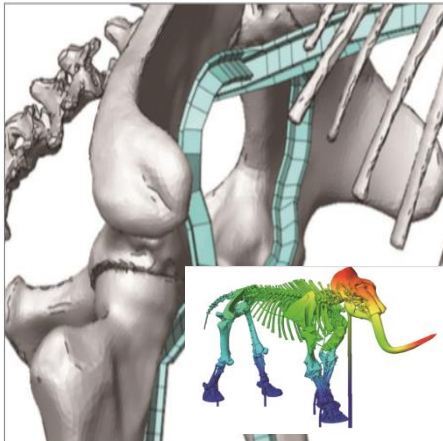
midas FEA NX

Advanced Nonlinear and Detail Analysis System

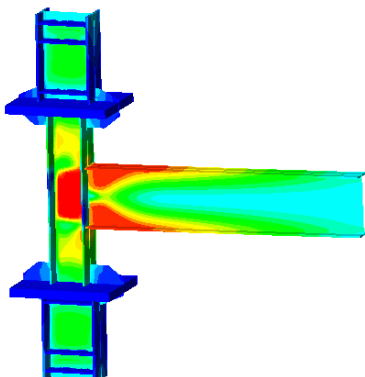
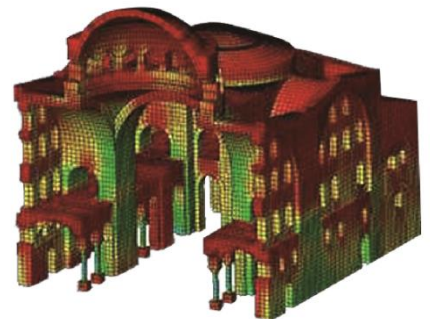
**CAD based
Powerful
Pre & Post
Processors**



**Excellent
Result
Display
by Powerful
Graphic Engine**



**Fast
Analysis
optimized for
64-bit Platform**

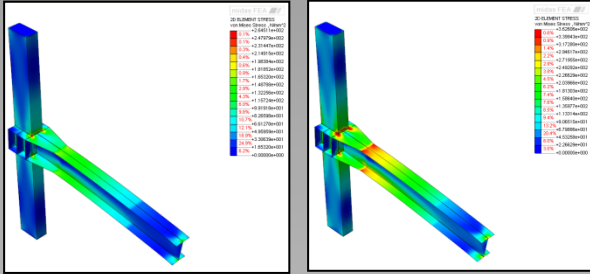


**Comprehensive
Database of
Material
Models**



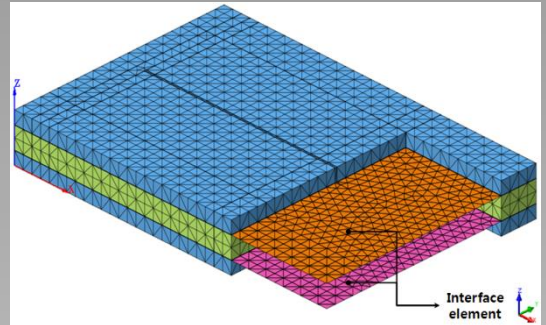
Application Areas

Plastic Analysis in Steel Connection



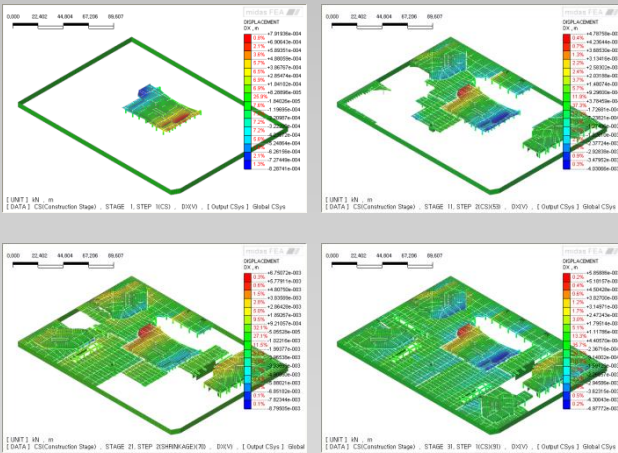
- Examination of stress tolerance according to steel Von-mises model

Interface Nonlinear Analysis

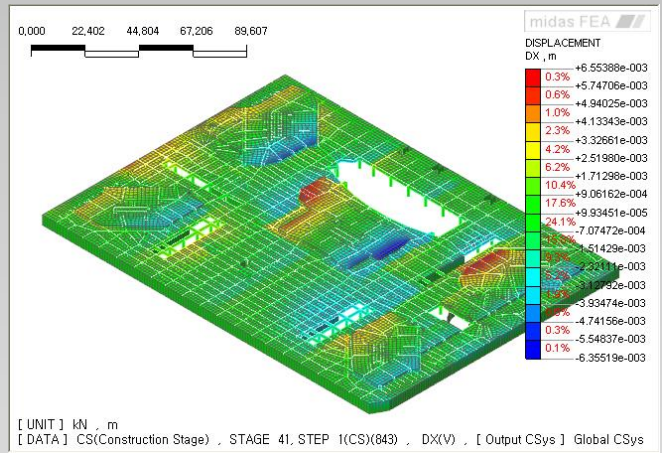


- Verification of curtain wall type concrete heat-dissipating wall

Sequential Verification in Concrete Structure

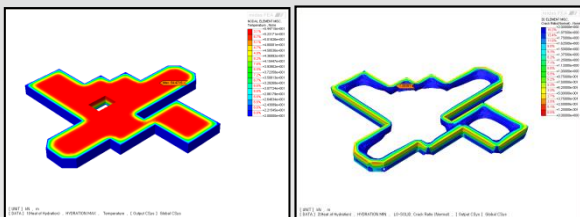


- Construction stage analysis considering concrete shrinkage by temperature loads for 3D podium structure



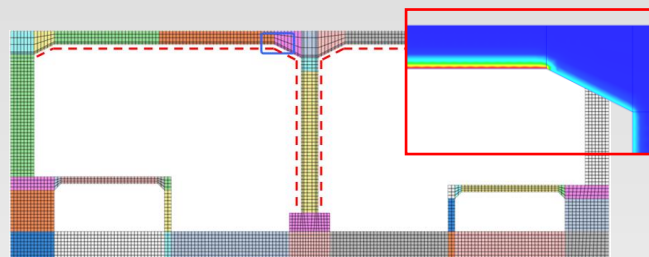
[UNIT] kN , m
[DATA] CS(Construction Stage) , STAGE 41, STEP 1(CS)(843) , DX(V) , [Output CSys] Global CSys

Heat of Hydration Analysis



- Heat transfer analysis and thermal stress analysis considering creep & shrinkage

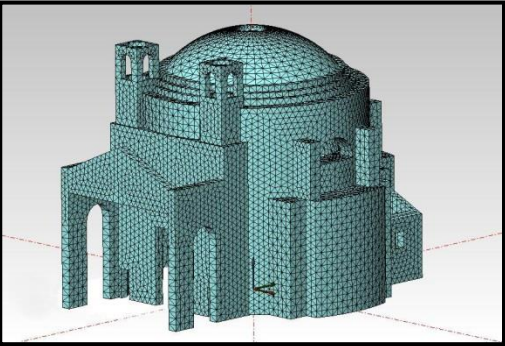
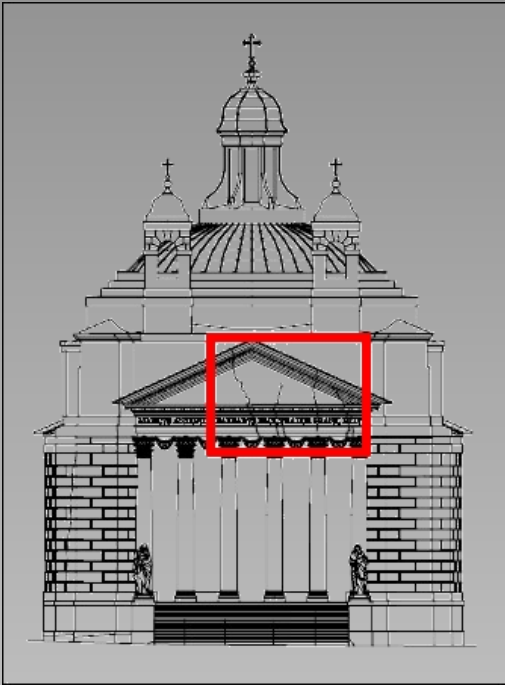
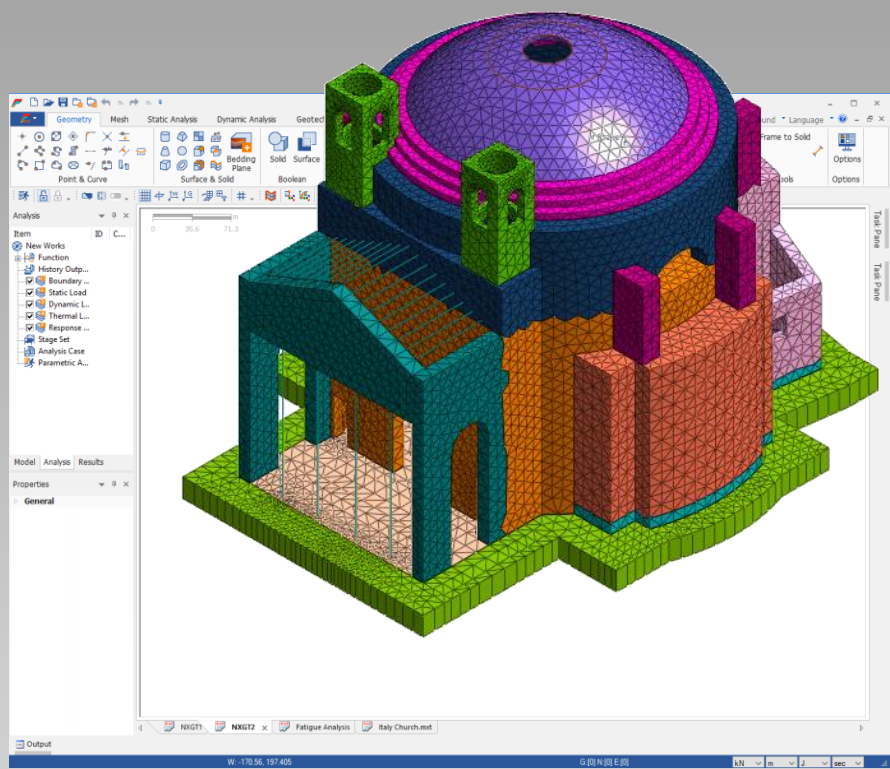
Evaluation of Thermal Damage due to Fire



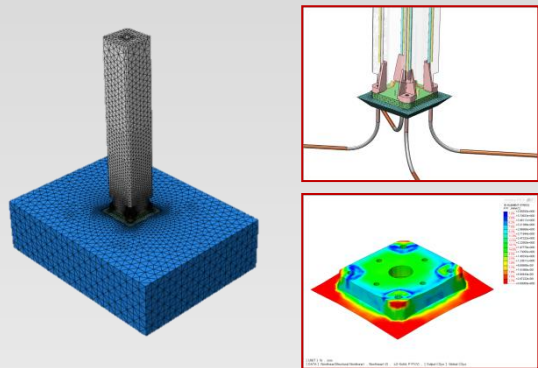
- Evaluate the effect due to high temperature in case of fire in subway station

Crack Analysis of Masonry Structures

Verification of crack progress with Smeared Crack Model

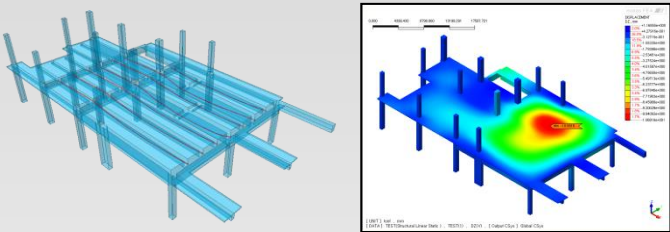


Behavior of PC Columns in High-seismic Zone



- Analysis of joint by cyclic load with nonlinear behavior of steel and concrete

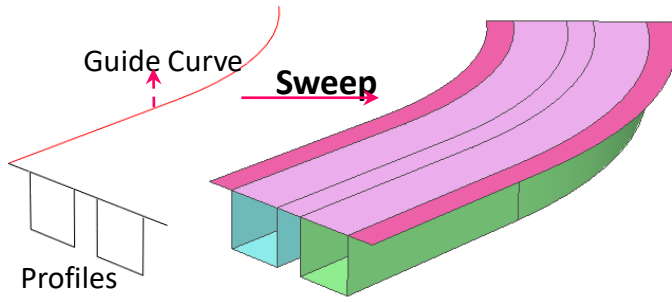
Post-tensioning Slab Analysis



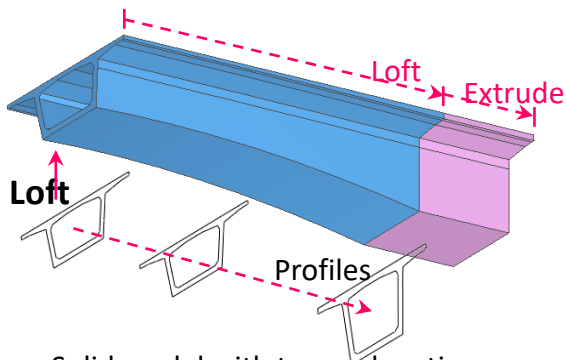
- Maximum deflection and column axial force comparison according to the post-tensioning arrangement

Powerful Pre-processor

CAD based Geometry Modeling

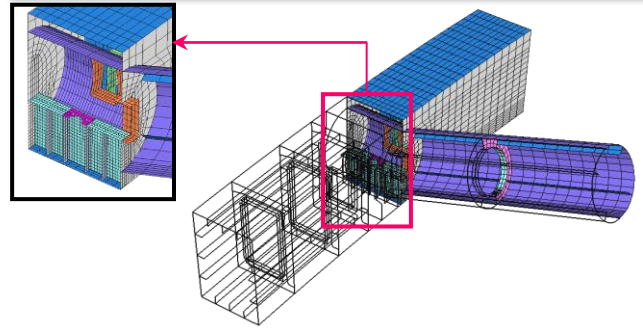


Extrude along guide curve

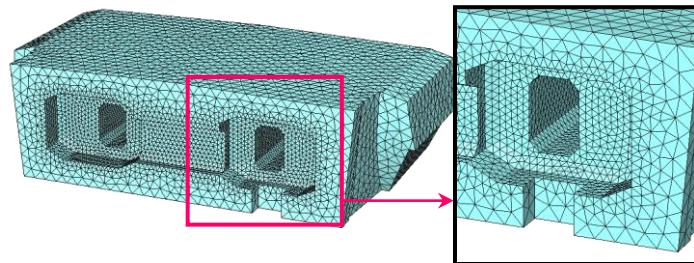


Solid model with tapered section

Auto-mesh Generation and Size control

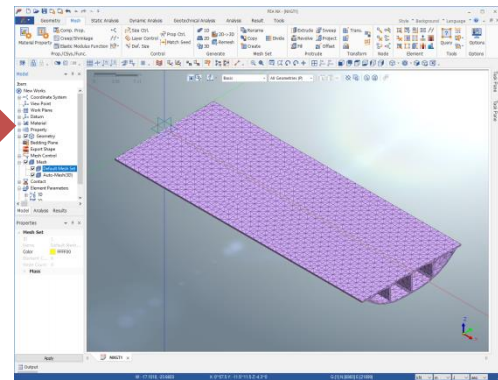
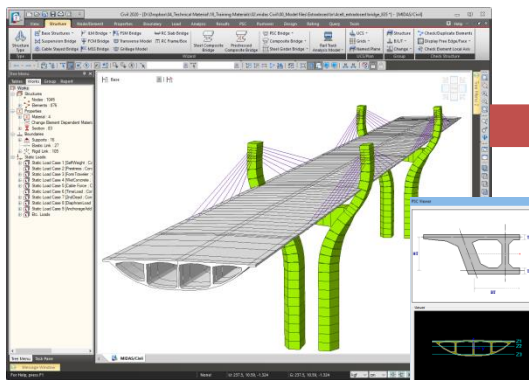


Surface automatic mesh

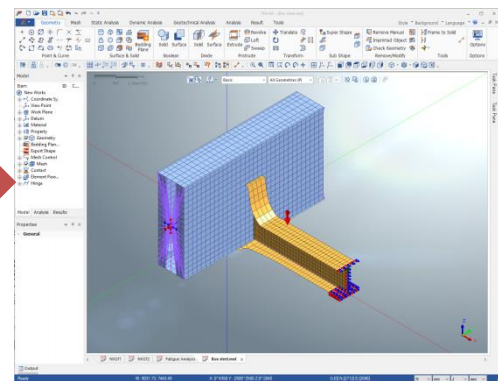
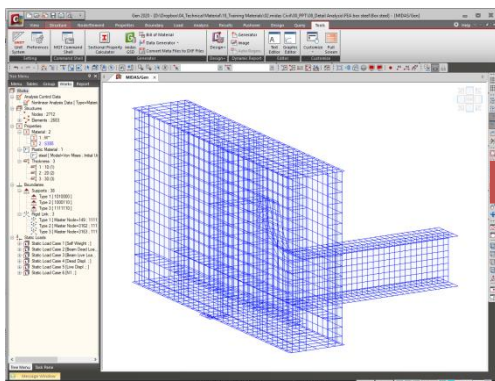


Mesh size control

Direct Data Transfer with midas Gen/Civil

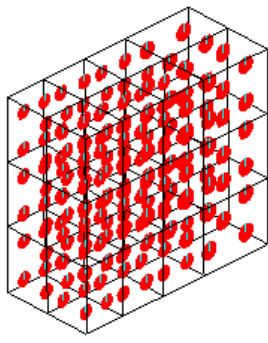
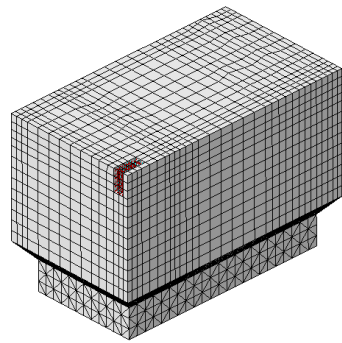


Frame to plate/solid conversion for detail analysis

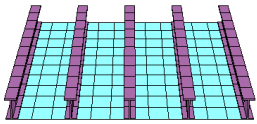


Geometry, load and boundary conditions converted into midas FEA NX for advanced analysis

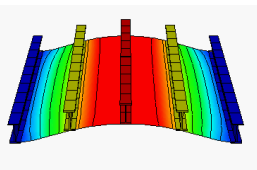
High-end analysis capabilities



- Smeared crack model
- Interface nonlinearity
- Crack pattern and element status



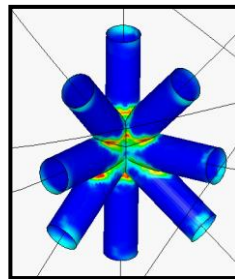
Cracking Analysis



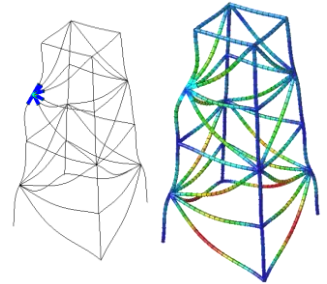
- Eigenvalue / response spectrum analysis
- Linear time history (mode / direct methods)
- 1D/2D equivalency linear analysis
- Nonlinear time history + SRM coupled

Dynamic Analysis

Static Analysis

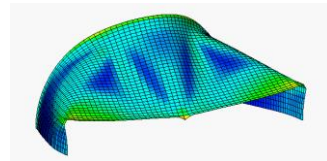


- Linear static analysis
- Construction stage analysis



Nonlinear Analysis

- Plasticity Models: von Mises, Tresca, Mohr-Coulomb & Drucker-Prager
- Geometry nonlinear analysis
- Hardening behaviors

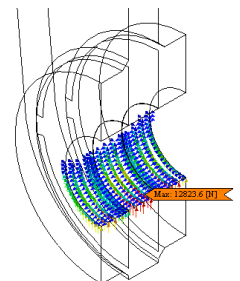
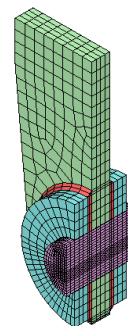
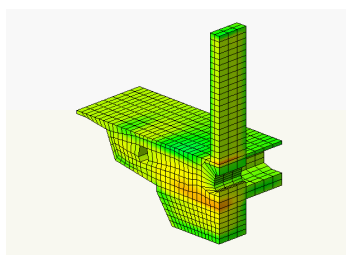


Contact Analysis

- 2D & 3D contact analysis with material and geometry nonlinearity
- Contact Type : Welded, General, Bi-directional Sliding, Rough, Breaking-Weld

Heat of Hydration Analysis

- Heat transfer analysis based on construction stages
- Convection, heat source, pipe cooling



FEA NX

Advanced Nonlinear and Detail Analysis System