

<https://www.midasoft.com/bridge/civil/products/midasngen>

For more than last two decades, MIDAS Engineering Solutions have been used in designing prominent landmark structures around the world

Product Overview

Structural Engineering Field

Application Areas

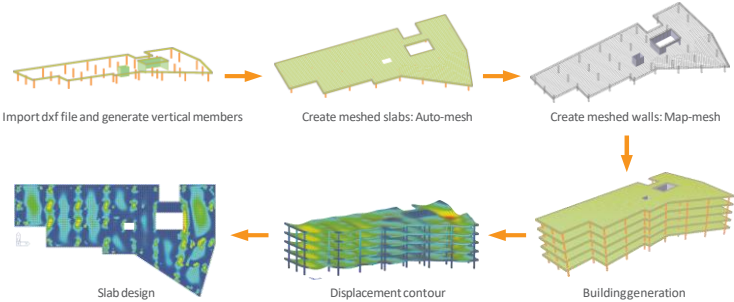
- All types of buildings (RC, Steel, Composite) Stadiums, arenas & gymnasiums
- Plant structures (power plant, steel plant, etc) Airports & hangars
- Underground structures
- Pressure vessels & machine structures

Advanced Technology

Design Codes

RC Design	Steel Design	SRC Design
Eurocode 2 & 8	Eurocode 3	SSRC
ACI318	AISC-LRFD	JGJ138
NTC2008	AISC-ASD	CECS28
BS8110	AISI-CFSD	AII-SRC
IS:456 & IS:13920	BS5950	TWN-SRC
CSA-A23.3	IS:800	AIK-SRC2K
GB50010	CSA-S16	AIK-SRC
AII-WSD	GBJ17, GB50017	KSSC-CFT
TWN-USD	AII-ASD	Footing Design
AIK-USD, WSD	TWN-ASD, TWN-LSD	ACI318
KSCE-USD	AIK-ASD, LSD, CFSD	BS8110
KCI-USD	KSCE-ASD	Slab & Wall Design
	KSSC-ASD	Eurocode 2

Automeshing and Design Procedure



Highrise Specific Functionality

- Construction Stage Analysis accounting for change in geometry, supports and loadings
- 3D Column Shortening Analysis reflecting change in modulus, creep and shrinkage

Dynamic Report Generation

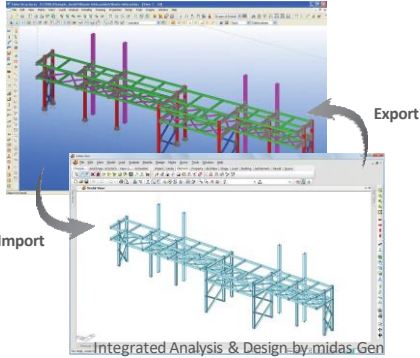
- User Defined Images: 3D model view, Elevation, Beam Diagram, Reaction
- Automatic re-generation of the report with updated analysis & design results

Pushover Analysis

- Pushover Analysis of a 3D frame structure used for performance based design (FEMA, Eurocode 8 and Masonry)

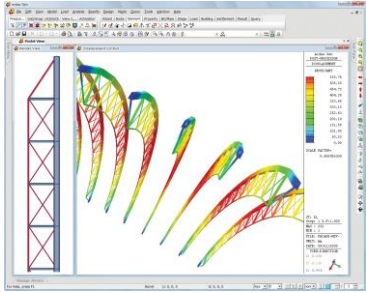
File Manipulation

- Direct Data Transfer with Tekla Structures, Revit Structure & STAAD
- Import/Export (AutoCAD DXF, MSC.Nastran, MGT, etc.)
- Merge Data Files
- Unlimited Undo/Redo & Step Return using History



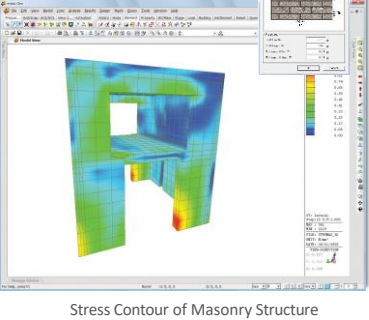
Geometric Nonlinear Analysis

- Large displacement analysis encountered in cable supported structures, cable net structures, long span structures, etc. can be performed reflecting the change in geometrical deformations



Structural Masonry Analysis

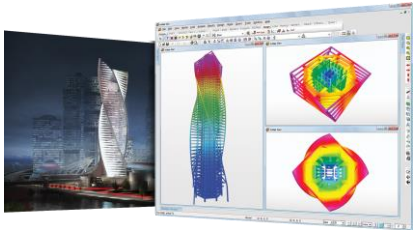
- Masonry structures can be modelled with solid elements, which retain orthotropic material properties. The effect of nonlinearity such as tensile crack and compressive failure can be considered.



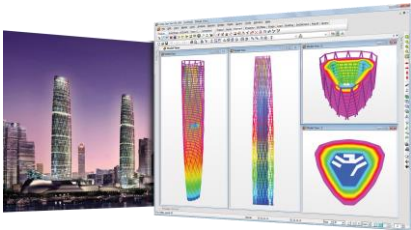
Building Structures



Burj Khalifa (UAE)
The World's Tallest Building

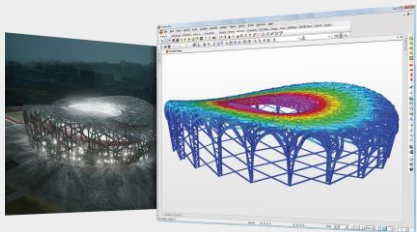


Moscow City Palace Tower (Russia)
Twisting 46-story Building with Composite Columns

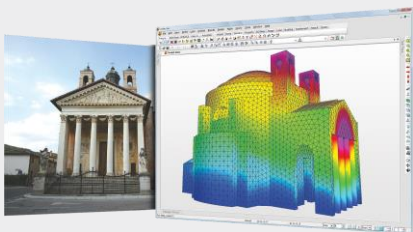


Guangzhou Twin Tower (China)
103-story Multi-use Building

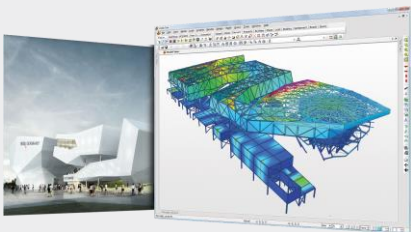
Specialty Structures



Beijing National Stadium (China)
Beijing Olympic Main Stadium

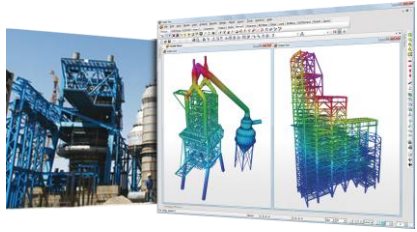


Temietto di Villa Barbaro (Italy)
Structural Evaluation of Vulnerable Historic Building (Built 1580)

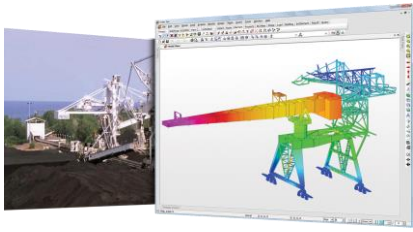


German Pavilion (China)
Shanghai EXPO

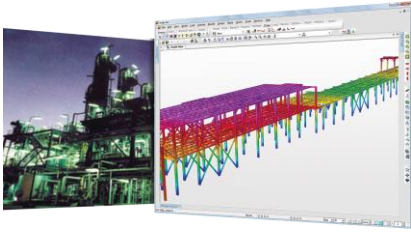
Plant Structures



Tavazon Steel Plant (Iran)
Steel Manufacturing Plant (1,400,000 Ton/Yr.)



Kideco (Indonesia)
Coal Mining Plant (32,000,000 Ton/Yr.)



Hadded CCL (Saudi Arabia)
Color Coating Plant including RCL, CPL & Utility (120,000 Ton/Yr.)