`09 MIDAS IT
Company Profile

MIDAS Information Technology Co., Ltd.

Contents

Part I. Company Overview

About MIDAS IT

MIDAS

Modeling, Integrated Design & Analysis Software

Being a central distributor of leading technologies in the world, MIDAS IT has garnered global recognition through its continuous passion and devotion towards the philosophy of human welfare.

MIDAS IT (MIDAS Information Technology Co., Ltd.) provides engineering software development and distribution, structural engineering consulting services and web business integrated solutions. The company was officially incorporated in September 1, 2000, and consists of structural software developers and professional engineers with significant practical experience. Currently, over 300 developers and structural engineers with extensive experience support the company. MIDAS IT also has corporate offices in the U.S.A, China, Japan and India, and has grown to a world class company exporting engineering software over to more than 40 countries worldwide.

MIDAS IT's vision is in becoming the world best engineering solution developer and distributor. MIDAS IT's faith is in promoting the happier lives both for employees and customers. MIDAS IT will relentlessly pursue to become the world best company which propagates the excellence of Korean engineering technologies.

MIDAS IT's Business Areas

MIDAS IT provides engineering software development,
engineering consulting services and web business solutions.

e-Business
(web-based Solutions Development)

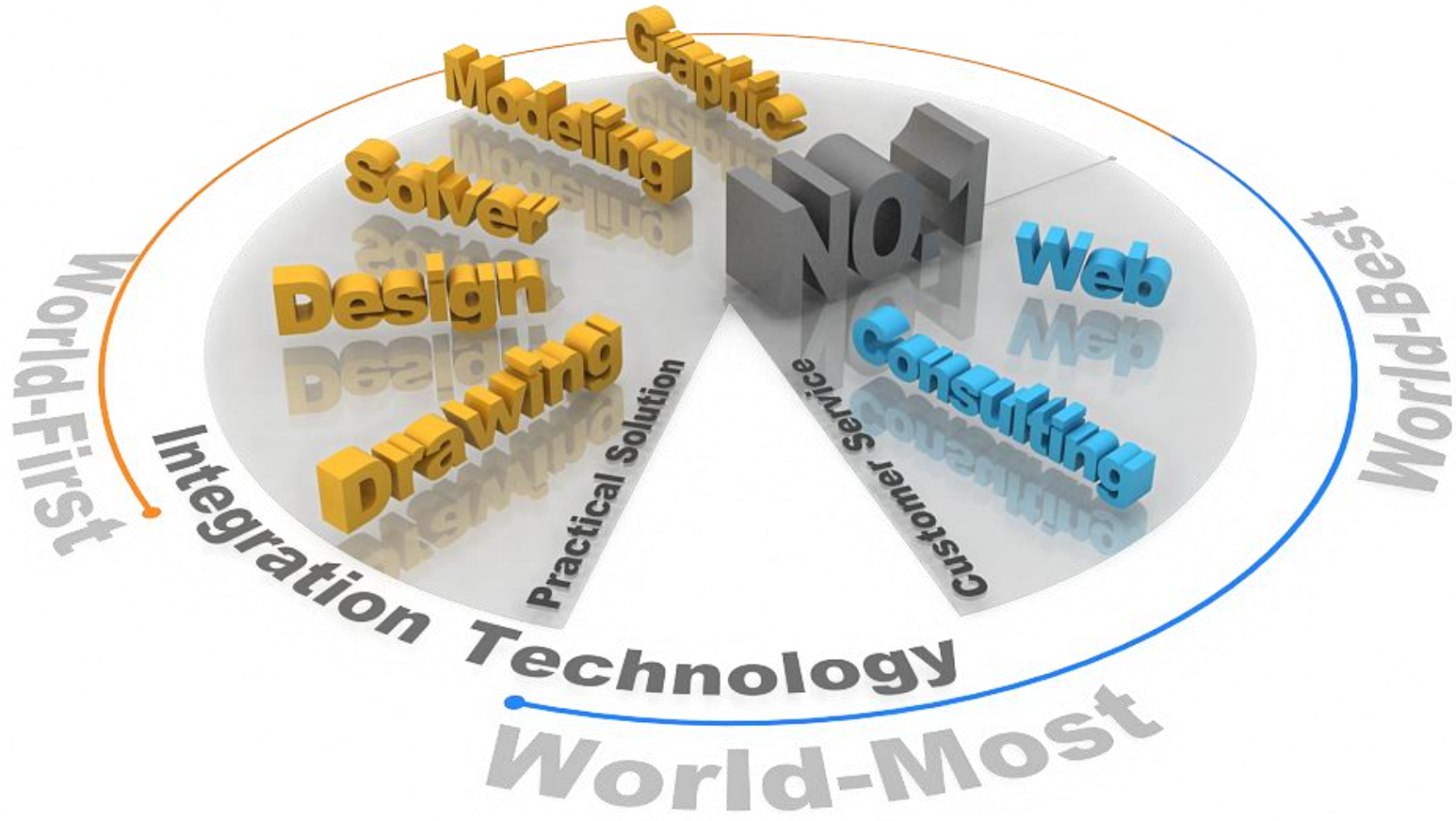
Engineering software business
(Mechanical/Architectural/Civil/Geotechnical engineering)

Engineering consulting business
(Architectural/Civil/Plant engineering)

MIDAS IT Technology – MIDAS S/W Business

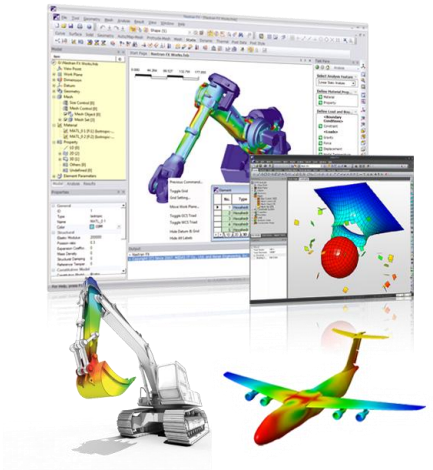
Core technologies

1. Model generation and simulation of 3-D structures using the latest computer graphics technology
2. Development of high-end finite element libraries, various analysis algorithms and solvers
3. Optimization of structural design and automated drafting



MIDAS Family Programs

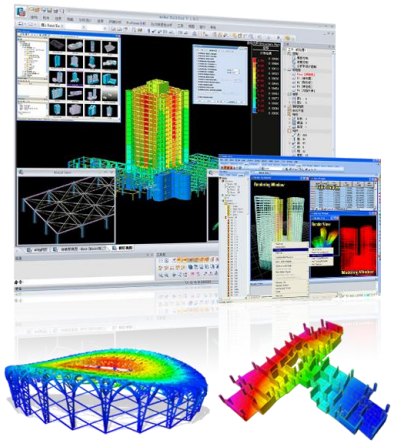
Mechanical Engineering



Nastran **FX**
Total Solution for True
Analysis-driven Design

midas **FX+**
General Pre & Post Processor
for Finite Element Analysis

Building Engineering



midas **Gen**
Integrated Design System
for Building and General Structures

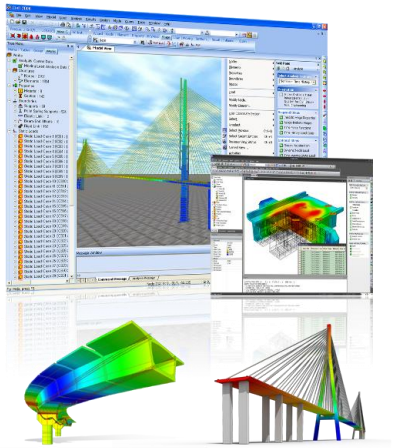
midas **Building**
A revolutionary building specific
design system with auto-drafting modules

midas **BDS**
Shear wall type Building Design System

midas **SDS**
Slab & basemat Design System

midas **Set**
Structural engineer's tools

Civil Engineering



midas **Civil**
Integrated Solution System
for Bridge and Civil Structures

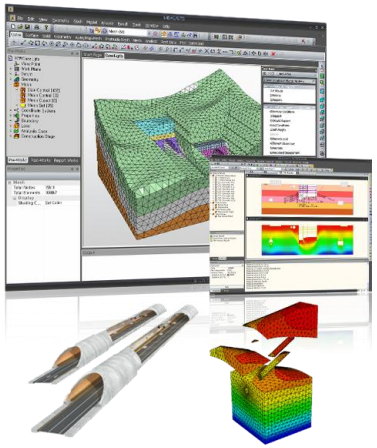
midas **FEA**
Advanced Nonlinear and Detail
Analysis System

midas **Abutment**
Abutment Automatic Design System

midas **Pier**
Pier Automatic Design System

midas **Deck**
Deck Automatic Design System

Geotechnical Engineering



midas **GTS**
Geotechnical and Tunnel analysis System

midas **GeoX**
Temporary shoring & Settlement
analysis System for Excavation

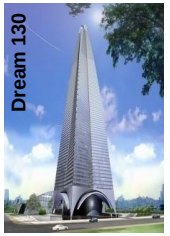
MIDAS IT Technology – Engineering Consulting Business (Building / Civil / Plant)

Core Technology

1. Structural system planning, analysis & design of high-rise buildings and large scale buildings
2. Structural wind induced vibration analysis / seismic resistant structural analysis
3. Plant structure analysis, optimal design & safety assurance
4. Safety evaluation, analysis & design of bridges and civil structures

Engineering Consulting – High-rise Building Projects

1. Structural system planning, analysis & design of tall buildings and large scale buildings
2. Structural wind induced vibration analysis, wind resistant analysis & vibration control
3. Seismic resistant structural analysis & design and structural audit & rehabilitation
4. Fine vibration analysis and control for high-tech facilities
5. Plant structure analysis, optimal design & safety assurance
6. Safety evaluation and health monitoring of major facilities



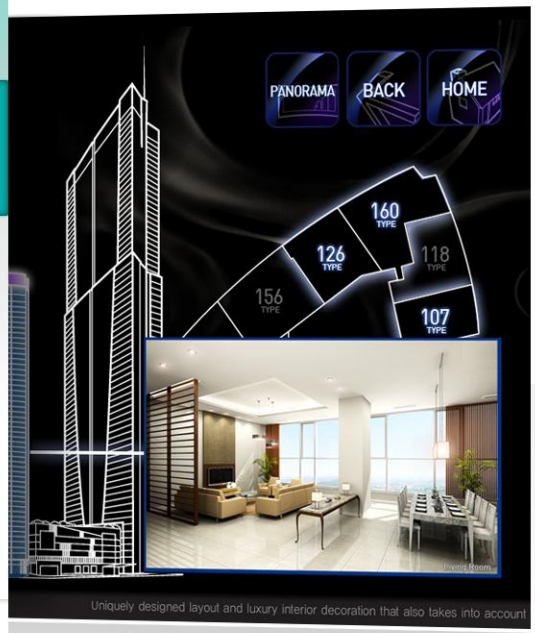
Web based solutions & systems development

Core technology

1. Customer oriented intelligent website development & maintenance
2. Online virtual sales management solutions development / advertisement development and services
3. Construction site management and manpower allocation management systems development
4. Virtual exhibition for housing development

Integrated management solution for online housing

E-business consulting



Cyber model house

E-business

Company Web-site

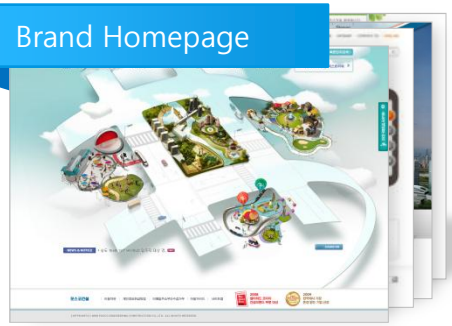
[Daewoo Engineering]

[POSCO E & C]

[LIG Construction]

[Daewoo motor sales corp. E & C]

Brand Homepage



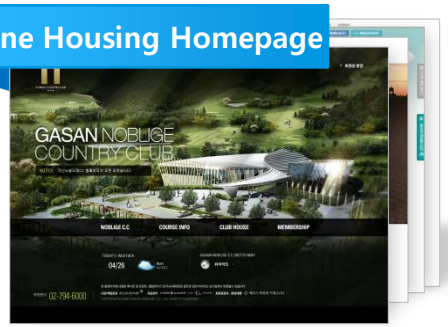
[The Sharp]

[Housestory]

[Iaan]

[LIGA]

Online Housing Homepage



[Gasannoblige]

[Diplex]

[Gatehills]

[Centroad]

History of MIDAS IT Company

1989.10	POSCO group established MIDAS IT
2000.09	Incorporated MIDAS IT (newly established by POSCO Group) (September 1, 2000)
2002.04	Entered into strategic alliance and distribution agreement with KKE, Japan
.11	Founded MIDAS China in Beijing
2003.01	Founded MIDASoft in Seattle, USA
2004.03	Strategic alliance and distribution Agreements (JCRC-Japan, USA, Canada, UAE, Iran, Bolivia & Thailand)
2005.04	Founded MIDAS China in Shanghai
.11	Strategic alliance with TNO DIANA, Netherland, and entered into distribution agreement for USA/Europe
2007.07	Strategic alliance with Noran Engineering, USA
2008.04	Founded MIDAS India (Mumbai, MIDAS R&D Centre India Pvt., Ltd.)
.04	Founded MIDAS Japan, Tokyo
.05	Strategic cooperation agreement with KKE, Japan in the mechanical engineering field








MIDAS Family Programs History

1996 .11	midas Gen, BDS, SDS : Building engineering
2001 .11	midas Civil : Bridge engineering
2003 .06	midas ADS : Residential shear wall building design
.12	midas FX+ : General purpose pre-post processors for civil engineering
2005 .03	midas GTS : Geotechnical engineering & tunneling
2006 .11	midas FEA : Detail FE linear/nonlinear analysis
2007 .03	midas GeoX : Temporary structure design program for excavation
.05	MODS : User-oriented MIDAS On Demand Services
2008 .08	Nastran FX : Easy, Accurate and Practical Solution for True Analysis - driven Design
2009 .05	midas Building : All That Building Structural Design for One Stop Total Solution

Company vision

“ The World Best Engineering Solution Provider & Service Partner ”

MIDAS Software
Leaders in providing the best CAE S/W for development and engineering solutions

Engineering Consultancy
Recognized as TOP 5 company that provides consulting in structural engineering

eBusiness
Leaders company in e-biz solutions and development

MIDAS IT Organization

CEO

Total : 260
Domestic : 202
Overseas : 58
[2009.05.01]

Corporate Planning & Management

Planning
- Management Planning
- Finance & Accounting

Support
- Human Resources/Training
- General Administration/
- Management / Legal Affairs / Audit

Management
- Business Strategy
- Business Development

Committees
- Corporate Management / Human Resources / Marketing / Quality Assurance/Information Technology / Technology / New Technology Innovation / Sharing Life

Global Network

USA
- Detroit

Japan
- Tokyo

India
- Mumbai

China
- Beijing
- Shanghai
- Guangzhou
- Chengdu
- Shenyang

Global Office/Partners
- 20 Direct distribution channels worldwide

Software Business

R & D Center

Development
- Development Planning
- Building App. Development
- Bridge App. Development
- Analysis Technology
- CAD Development Team

Technical Support
- Building Structure
- Bridge Structure
- Geotechnical Structure
- Mechanical Engineering

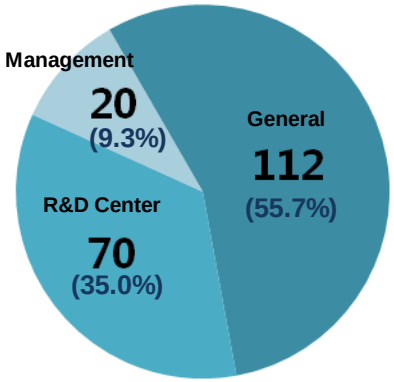
Marketing & Sales
- Marketing Planning
- Building Solution Consulting
- Bridge Solution Consulting
- Mechanical Solution Consulting

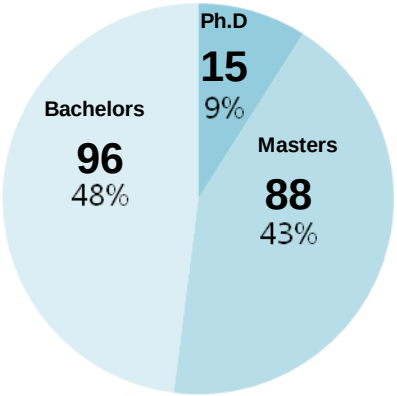
Engineering Consultancy
- Building Engineering
- Plant Engineering
- Bridge Engineering

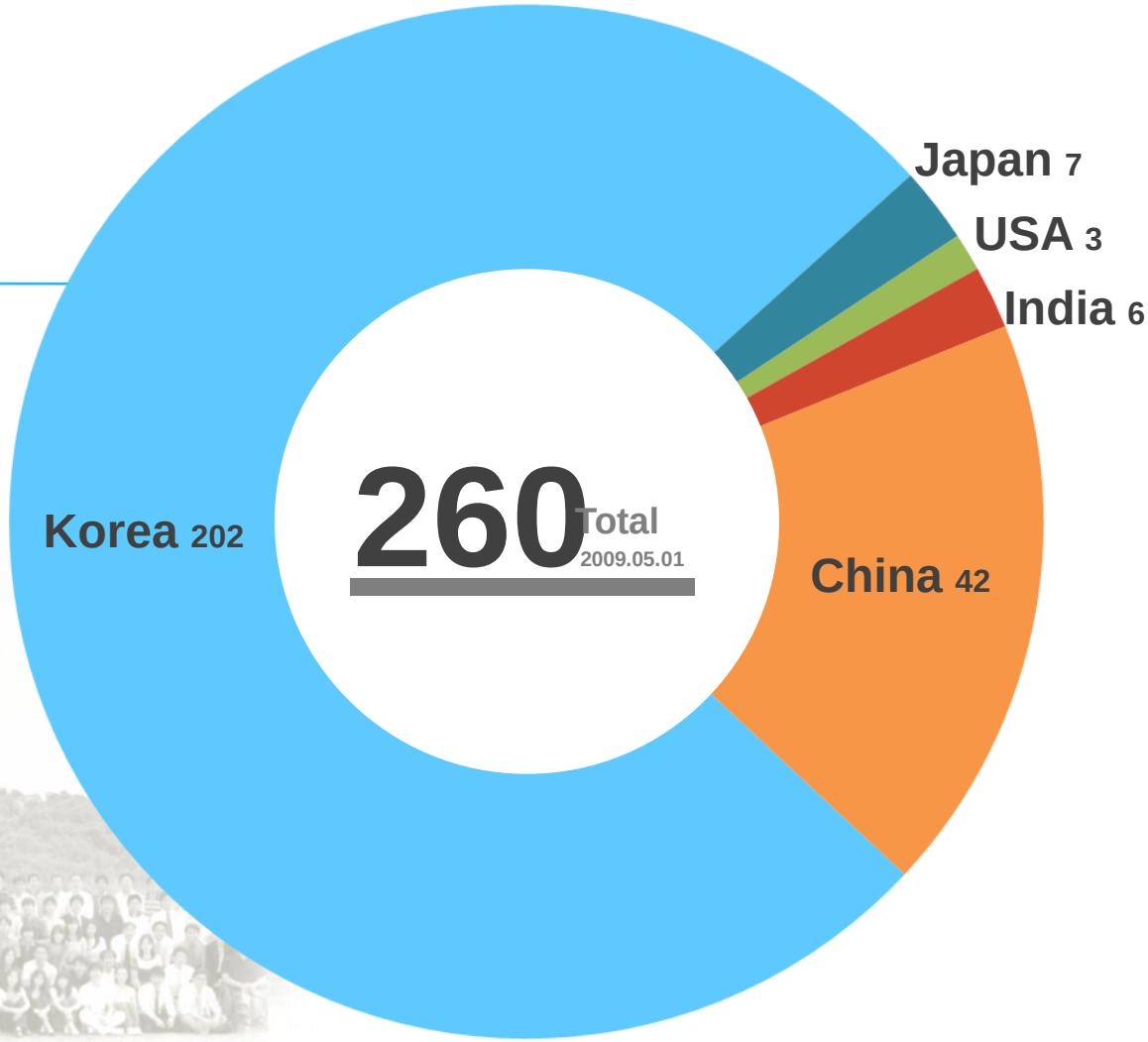
E-Business
- Web Consulting
- Web Planning
- Web Development
- Web Design

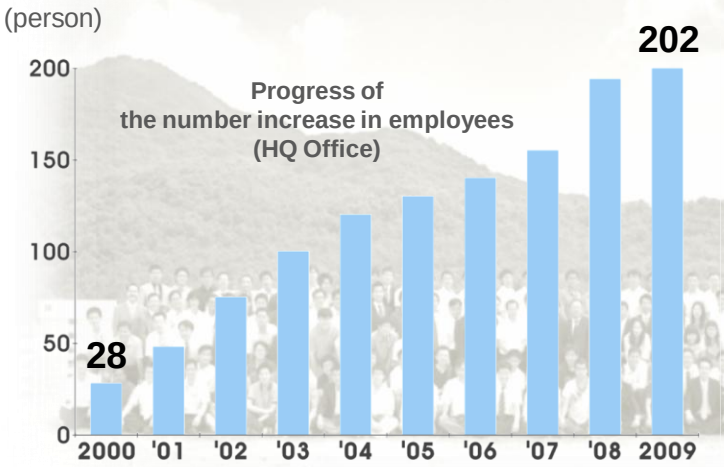
Composition of Staff

[MIDAS IT Head Office]

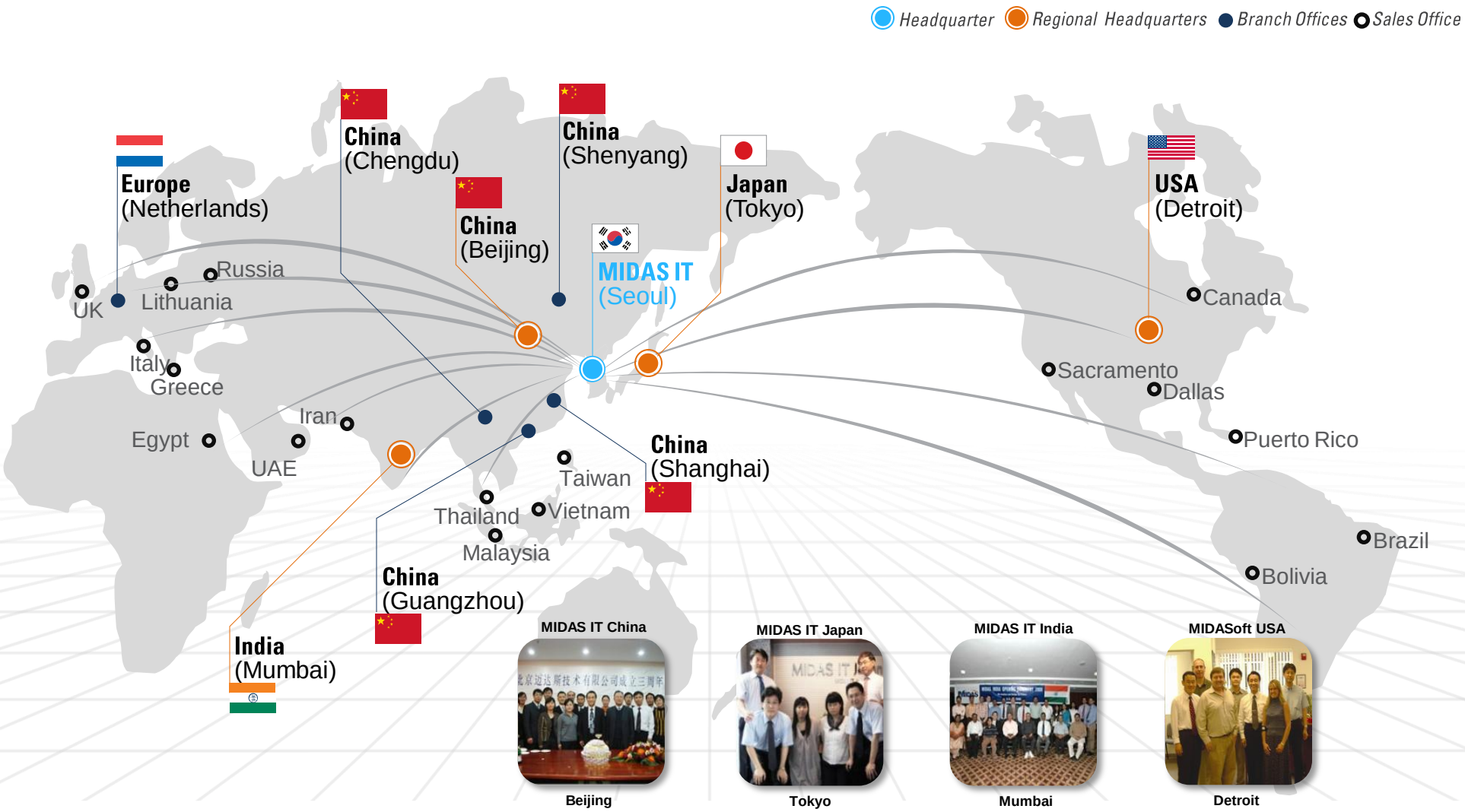








Global Network



Key Partners

Part II. MIDAS IT Culture

MIDAS IT Culture

“ Do the right things right ”

Core Values

First, Happiness of Staff

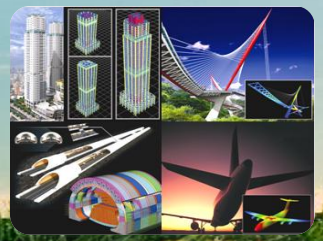
Security of stable future through mutual Trust & common Convictions actualized via a strong link between the individual's growth and the company's growth

Second, Rewards in Life

Engineer's conscience and honor to use the technologies to change the world to a better place through happier lives of mankind

Valuable achievement through unshaken determination and continued efforts, which inspires the engineer's life

Actualization of the engineer's pride in pursuit of the world's best technologies



Happiness

MIDAS IT
Values

Rewards

Sharing

Third, Practice of Sharing

The mankind's mission and the root of wisdom for happiness to return what we earned from the society back to the society, which leads to actualizing the value of our existence.

For the MIDAS IT's sprit in pursuit of a better world in harmony, we practice what we preach into actions.

MIDAS IT' Faith

"Until the day
our engineering technologies
become the world's standards"

MIDAS was born out of a tiny seed.
The seed has proliferated to a small forest.
This small forest will advance to a big, clean and high mountain in the future.

The mountain will foster full of tress of matured engineers valuable to the society,
where flowers blossom and clear water flows in the valleys to lay minds and bodies of mankind,
we will spread a string of sharing in the crisp clear air under the shades of the trees.
This mountain will always be a part of a chain of mountains,
and our sprit will continue through the ridges of the mountains.

Visible life has a limit, but invisible faith is eternal.

MIDAS IT values honor through relentless passion, and
the bearing of the faith on a compass will guide us to the value of being together with the society.

An Engineer is…

Engineer…

an innovator aspiring changes over stagnation,
a pioneer pursuing advancement over complacency,
and a leader thinking the future over the present or the past.

Furthermore, an Engineer is

a philosopher who continuously seeks truth to phenomena,
a scientist who researches to intellectually identify the notions of the unknown,
and an artist who develops the needful with creativity.

the Engineer is therefore
a key actor in society leading and changing
the world for the betterment of mankind.

MIDAS IT Concept

The same goal

Sharing of core value, vision and mission

- The core value is the corporate identity itself and, at the same time, the ultimate goal to move toward.
- MIDAS IT relentlessly pursues innovation while being oriented to a consistent direction.
- The entire staff members share the company management goal with a great sense of responsibilities.

The same mind

The culture of trust, participation and communication

- The company fosters talented, future oriented personnel and promotes unlimited opportunities for those who seek results.
- The company believes in clear communication with mutual respect to effectively reach the common goal.
- The entire staff are actively involved in building the company culture together.

The same means

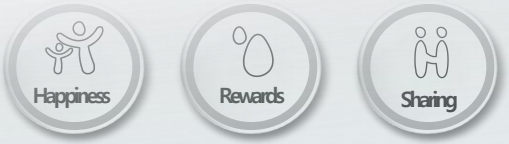
Work principles and system

- We seek to maximize the value for our customers.
- WE make critical decisions not for the current conditions, but for the values and opportunities in the future.
- We conform to the MIDAS work process.

The Same Goal

Core Values

MIDAS IT pursues the happiness of the world through the entire staff's happiness and technologies.



MIDAS VISION

The World's Best

Engineering Solution Provider & Service Partner

MIDAS MISSION

MIDAS Software

Leaders in providing the best CAE software for innovative engineering solutions

- Projected yearly net revenue at a growth rate of 35% to reach US$100,000,000 by 2012
- Number of staff increasing at a rate of 20% yearly to reach 500 engineers by 2012 internationally
- Alliances with strategic partners in Europe, North America, China, Japan, Russia and India
- Dominant market shares in engineering software solutions in the Architecture/Civil/Geotechnical fields
- A major player providing competitive mechanical engineering software solutions

Engineering consultancy

Recognized as one of the best 5 companies providing consulting services in structural engineering

eBusiness

A leader providing e-biz solutions and development

The Same Mind

Building Trust

Satisfaction of the Present → Compensation
Confidence in the Future → Career Opportunity

Compensation Policy : satisfaction and trust

- Competitive salary and benefits in the similar industries
- Transparent performance evaluation system
- Productive and pleasant work environment
- Staff participation in management issues and financial status

Career Opportunity : conviction of bright future

- Emphasis on continuing self-developments
- Aligning individual's and the company's goals
- Motivations to achieve excellence
- Identifying and cultivating talents
- A clear vision of individual carrer path

The Same Mind

"MIDAS IT strives to maintain the happiness of all MIDASians through various programs of the HR Management System"

Employee benefits

Tuition reimbursement for children

Fitness program

Self improvement

Housing loans

Vacation and Day-offs

Medical plan

Company Breakfast

Allowance for parking

Dormitory assistance

Studying Abroad

Other fringe benefits

MIDAS IT Work Process

MIDAS IT Work Process is the foundation for every planning and execution of all the tasks carried out in MIDAS IT. MIDAS IT Work Process enhances problem-solving and goal achievement capabilities of individuals through strategically approaching the issues.

The Same Means

MIDAS IT Principles

“We actualize Core Values and Vision through applying the principles to all of our undertakings”

01. All our thoughts and actions must coincide with the pursuit of Core Values.

02. We must act on behalf of our customers to maximize their values.

03. We must focus on the issues associated with future values and opportunities rather than dwelling into the current problems.

04. We must make prudent judgments in execution to maximize the synergy effects of people, technology and information.

05. We must conform to MIDAS IT Work Process.

MIDAS Culture

“MIDAS IT Culture”

What differentiates MIDAS IT from others?

- Culture of Performance driven
- Culture of Innovation
- Culture of Motivation
- Culture of Communication
- Culture of Cultivating Talents

“MIDAS IT Key Words”

Vocabularies which represent MIDAS IT

Happiness, Honor, Sharing, Faith, Rewards, Success, Cutting-edge, Passion, Aspiration, Dynamic, Youth, Opportunity, Challenge, Future, Talents, Simple, Volunteer, Transparency, Honesty, Welfare, Participation, Renovation, Innovation & Sharing

MIDASian

01 Perfection

A passionate person who demonstrates utmost efforts to perform at the highest level

02 Future

A proactive person who challenges the future with courage and wisdom

03 Innovation

A person who continuously innovates and produces results

04 Honor

A person who retains faith and pride, and values the honor of MIDAS IT

Social Responsibilities

MIDAS IT donates 1% of its annual revenues to charity for the less fortunate.

Charity Activities

MIDAS IT places great value in actively taking social responsibilities and promoting co-existence with others. MIDAS IT is committed to making a better world by sharing and taking actions such as providing food, water, clothing, housing and educational facilities.

Major activities

- Charity running
- Charity bazaar
- Providing food and grants to children unprotected from social welfare
- Habitat (housing building)
- Preparing and delivering basic food for physically challenged people
- Donating 1% of the revenue to charity organizations
- Group social activities (picnic, environmental clean up)
- 1 to 1 child sponsorship by the staff for the developing countries

Culture of sharing

MIDAS IT donates 1% of its annual revenues to charity for the less fortunate.

Charity Activities

MIDAS IT attempts to make the world a better place. Such commitments extend to all walks of life in need of assistance in any part of the world irrespective of race, nationality, religion or ideology. Such charity includes **Foundation of 'Hope' Elementary School in China, 1:1 Children Sponsorship**, and many more.

Major activities

- 1 to 1 matching fund for children in developing countries *
- Donation to the School for the Deaf in India
- Work Volunteering in International Workplaces (Bangladesh/Nepal)
- Foundation of 'Hope' Elementary School in China
- Charity for a school for the deaf in India

*** As of April 2009, 90% of the staff have been participating in sponsorship for needy children by making contribution of 1:1 matching fund, which now numbers more than 250 children.**

Part III. MIDAS Software Overview

01 MIDAS Family Programs

01. MIDAS Family Programs

Nastran FX
Total Solution for True Analysis-driven Design

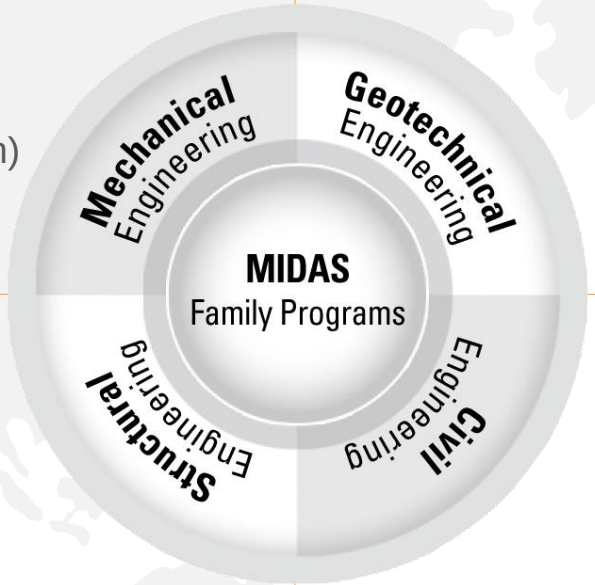
midas **FX+**
General Pre & Post Processor
for Finite Element Analysis

FEPartner (PMC in Japan)
Customized Pre & Post-processor
for Plastic CAE

midas **GTS**
Geotechnical and Tunnel analysis System

midas **GeoX**
Temporary shoring & Settlement analysis System
for Excavation

Soil+ (CTC in Japan)
Structural Analysis System
for Geotechnical Engineering



midas **Gen**
Integrated Design System
for Building and General Structures

midas **Building**
All-in-One Total Solution for
Structural Design of Buildings

midas **BDS**
Shear wall type Building Design System

midas **SDS**
Slab & basemat Design System

midas **Set**
Structural engineer's tools

midas **Civil**
Integrated Solution System
for Bridge and Civil Structures

midas **FEA**
Advanced Nonlinear and
Detail Analysis System

midas **Abutment**
Abutment Automatic Design System

midas **Pier**
Pier Automatic Design System

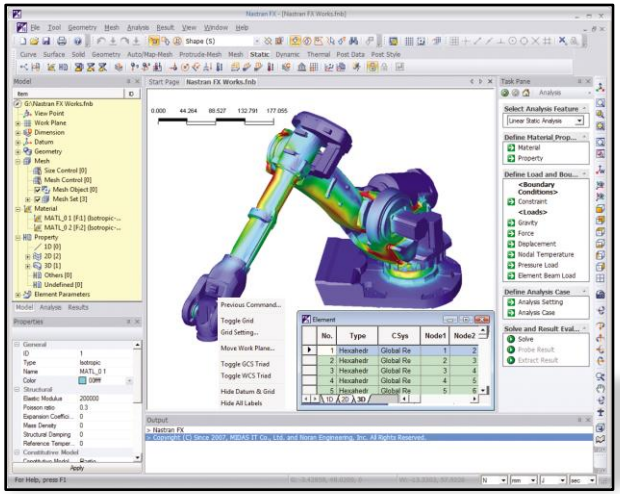
midas **Deck**
Deck Automatic Design System

02 Mechanical Engineering

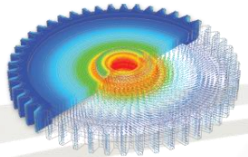
02. Mechanical Engineering – Nastran FX

Nastran FX

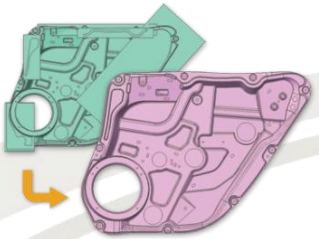
Total Solution for True Analysis-driven Design



- Released in 2008
- 2008 – Japan, Korea & Europe
- 2009 – USA, China & Russia
- Vision to become the next leading software in the mechanical CAE software field

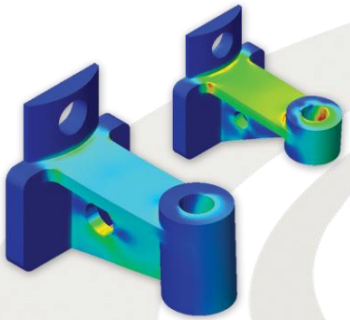


[Hybrid Contour Plot]

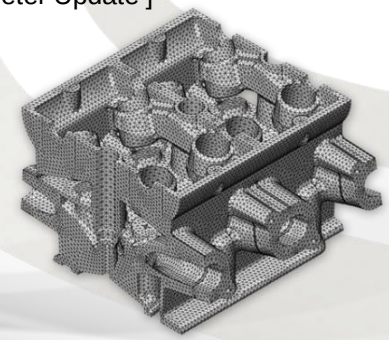


[Geometry Clean-up]

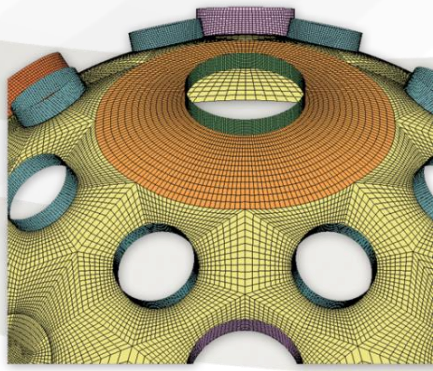
Nastran FX



[CAD Parameter Update]



[Automesh Generation]

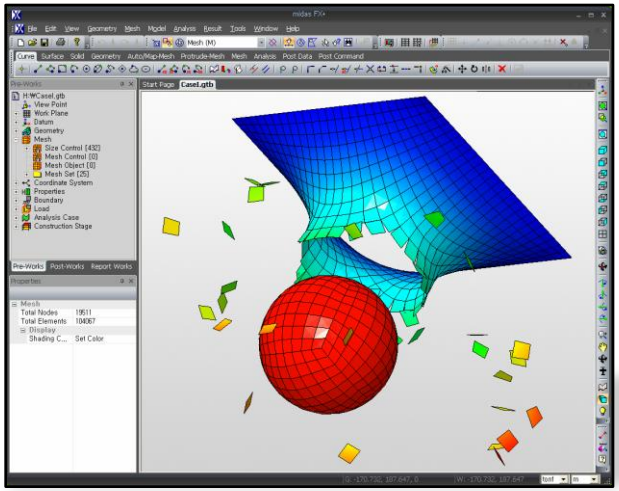


[Map-mesh Generation]

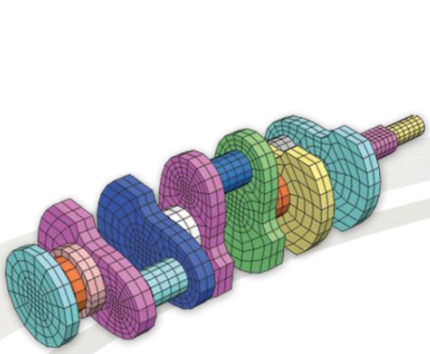
02. Mechanical engineering – midas FX+

midas FX+

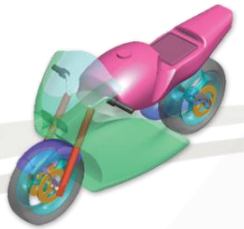
General Pre & Post Processor for Finite Element Analysis



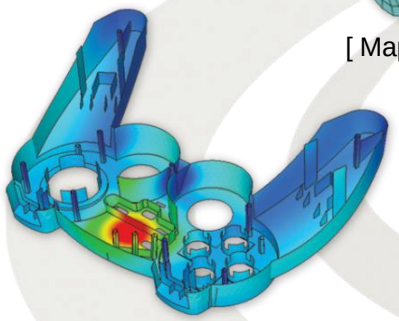
- Released in 2003
- Distributed worldwide
- FEPartner (Soil+, PMC & FXforDIANA)
- Endless application areas



[Mapped-Solid Meshing]

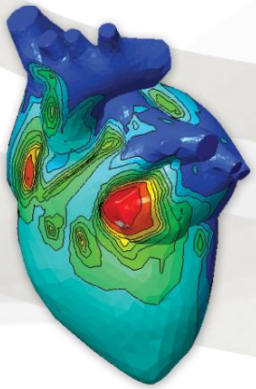


[Geometry-Transparency]

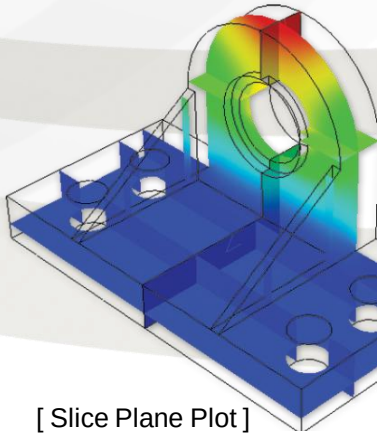


[Gradient Contour Plot]

midas FX+



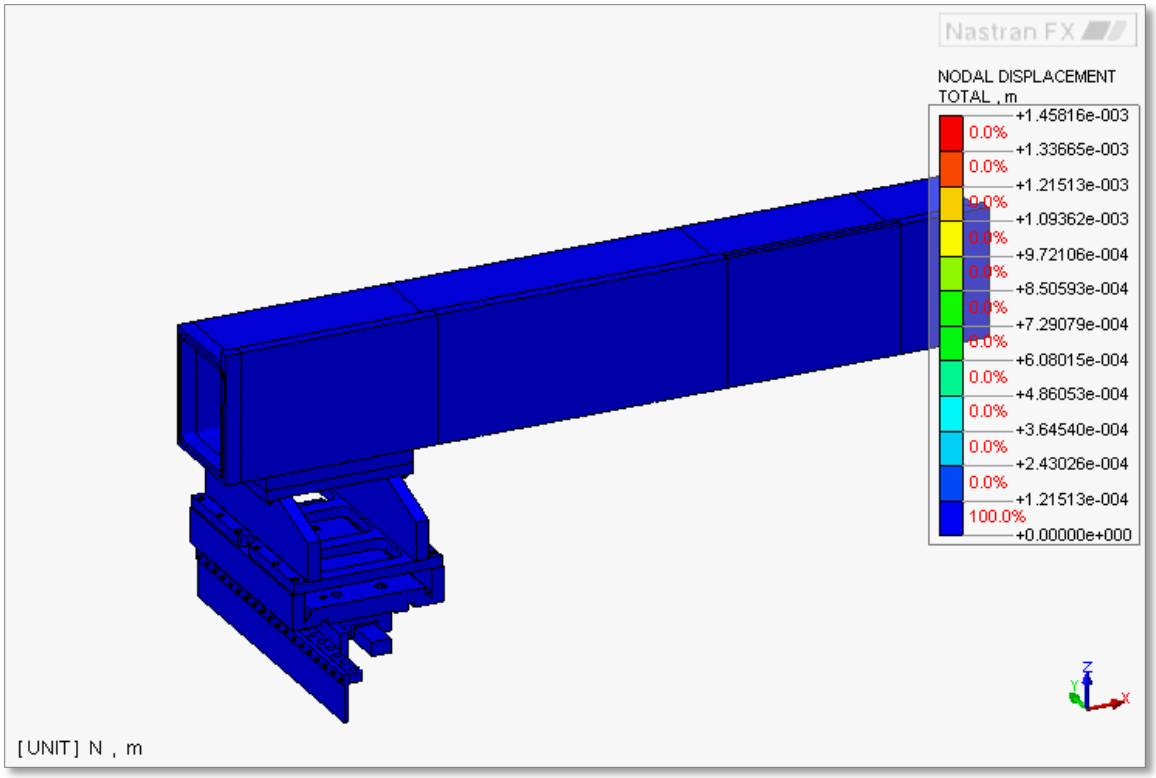
[Contour with Iso-line]



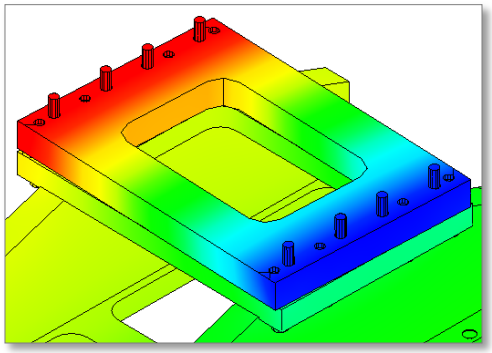
[Slice Plane Plot]

Conveyor equipment

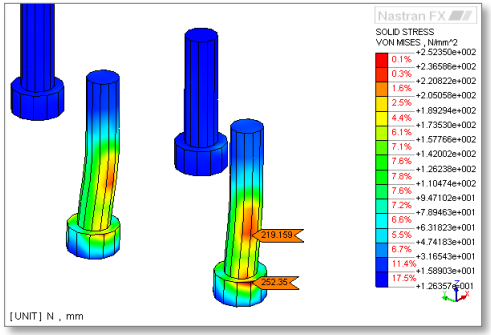
- **Analysis Goal:** Safety assessment due to non-symmetric static load resulting from operational mistakes and bolt connections
- **Analysis Type:** Linear static analysis of symmetric model, non-symmetric boundary conditions
- **Contact Condition**: Sliding contact & sliding deformation of single body structure



Deformation of structure while sliding



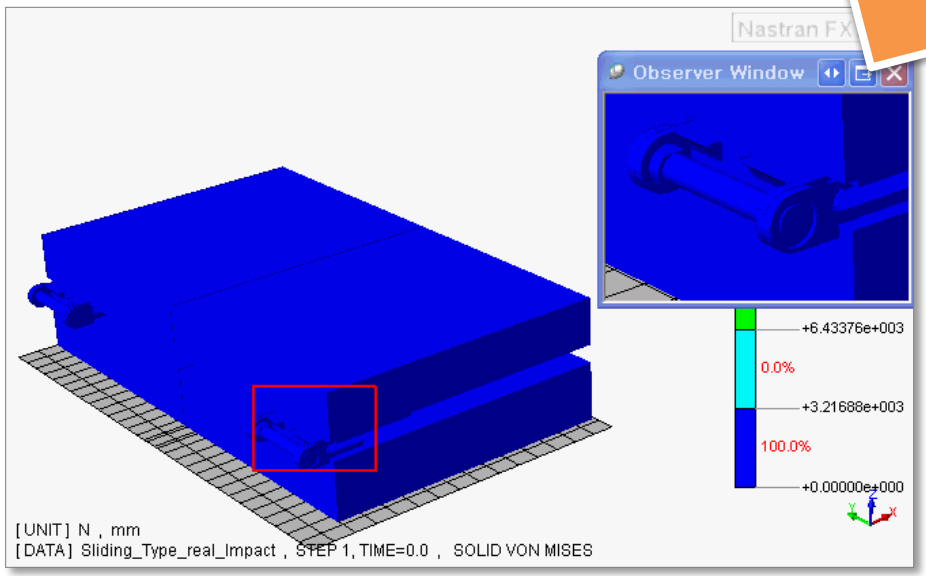
Relative deformation on upper and bottom parts



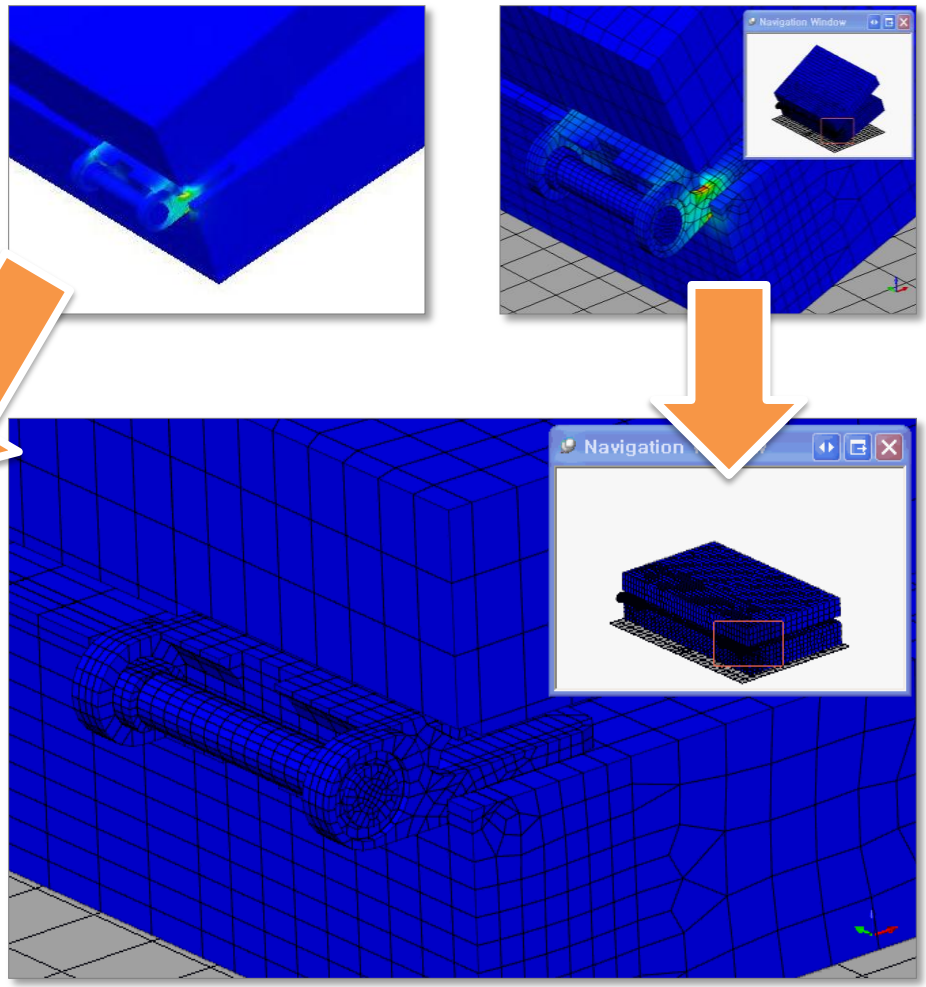
Stress assessment for bolts

Cellular Phone Hinge

- **Analysis Goal:** Stress/strength assessment from a drop test
- **Analysis Type:** Nonlinear dynamic analysis / Nonlinear Contact
- **Contact condition:** General contact & welded behavior

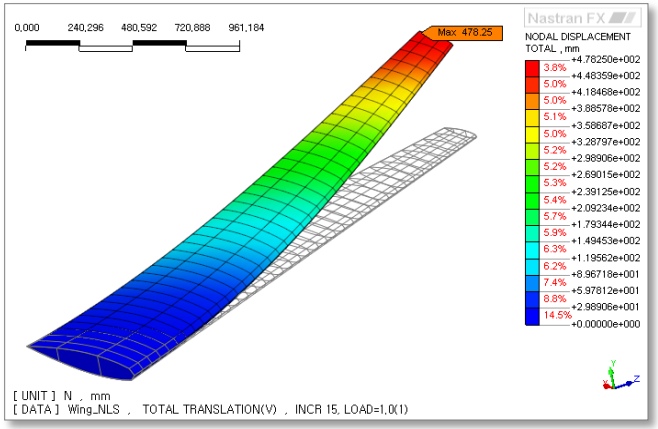


Drop impact behavior and stress distribution

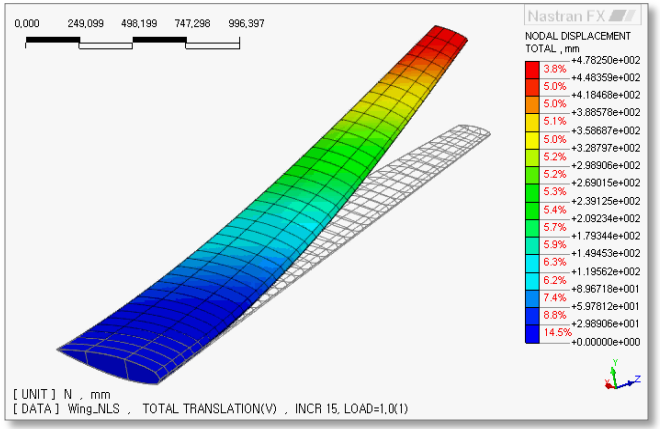


Stress variation in hinge area

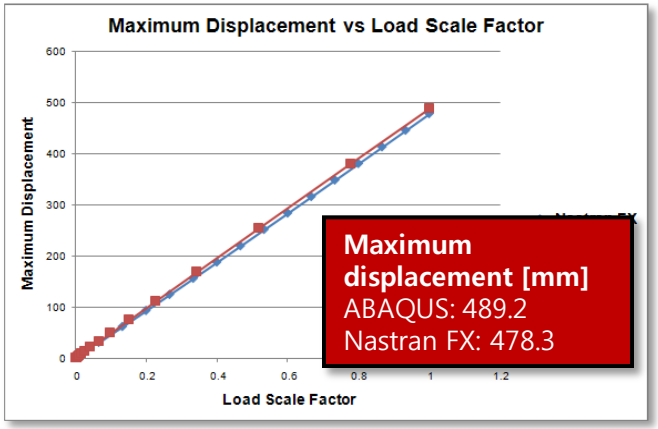
Aircraft wing



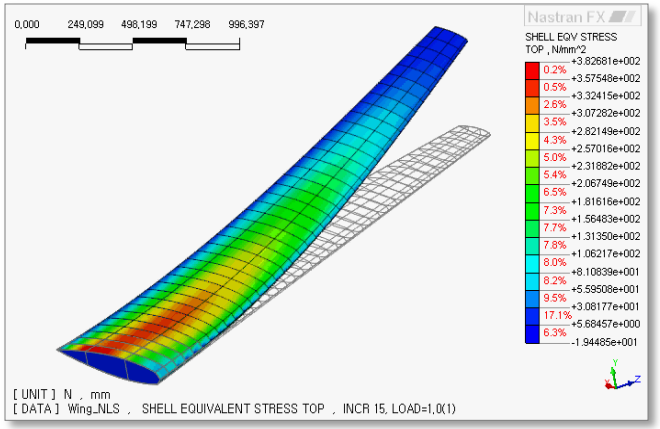
Maximum displacement and deformed shape



Displacement result and deformation animation

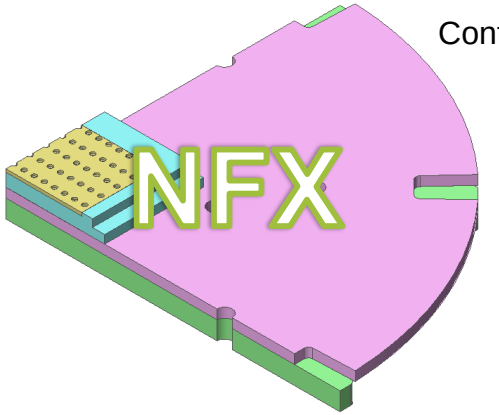


Comparison of displacement results with ABAQUS (maximum difference: 2.2%)

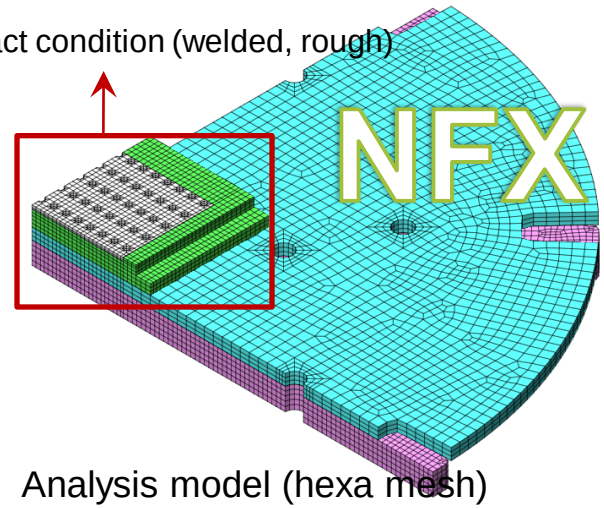


Nonlinear equivalent shell stress

Probe Card

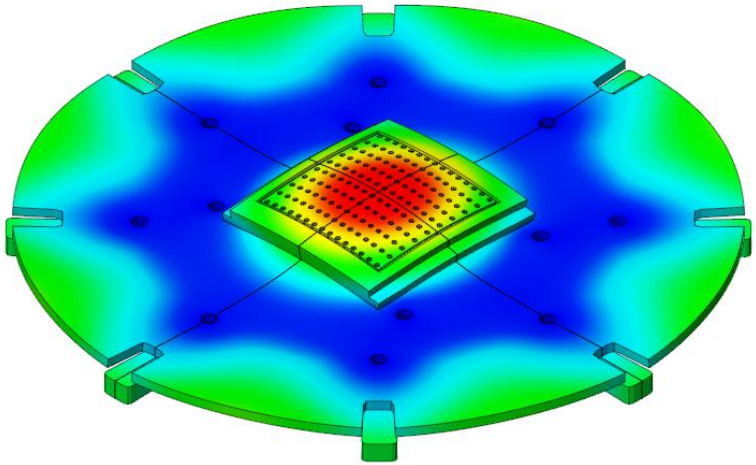


Geometry model (1/4 model)

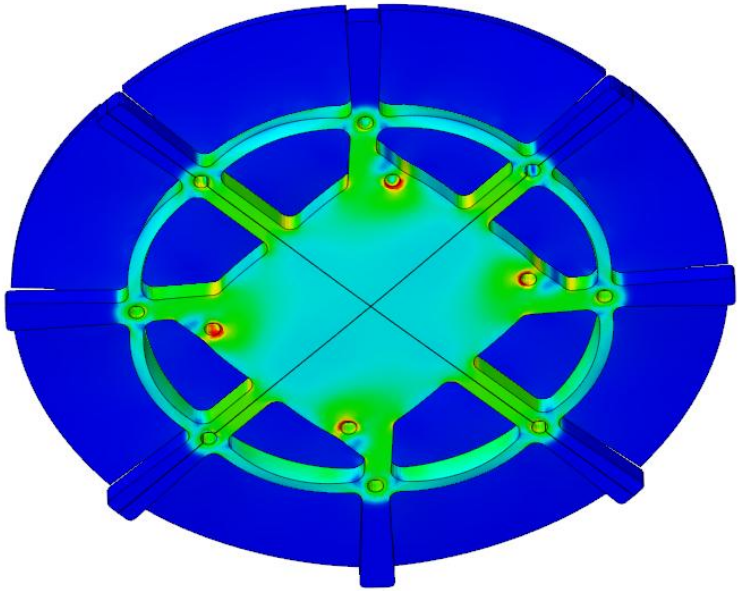


Analysis model (hexa mesh)

- **Analysis Goal:** Assessment of probe card deformation and stress due to thermal / structural static load
- **Analysis Type:** Linear static analysis
  Temperature & pressure static load (results mixed)

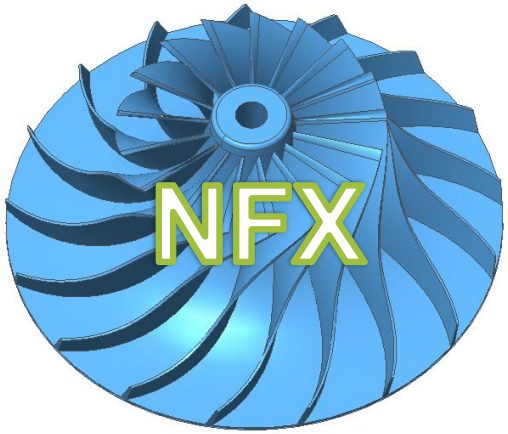


Displacement and deformed shape (symmetric display)



Distribution of effective stress (symmetric display)

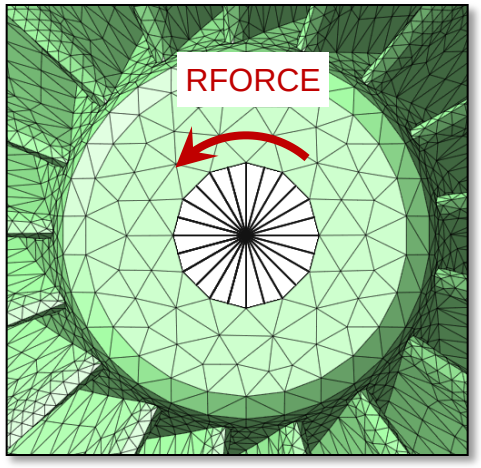
Impellor



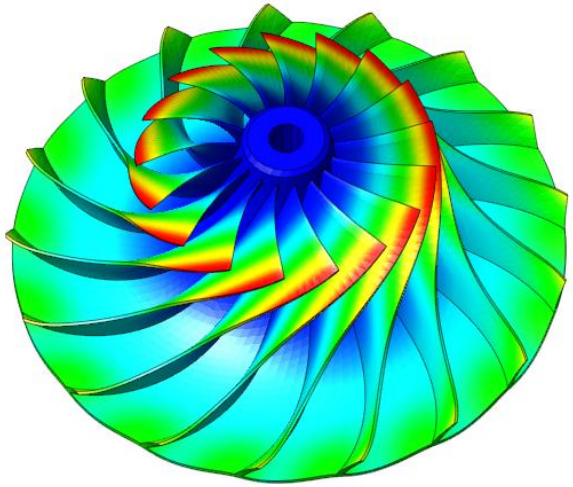
Geometry model

Analysis model (tetra mesh)

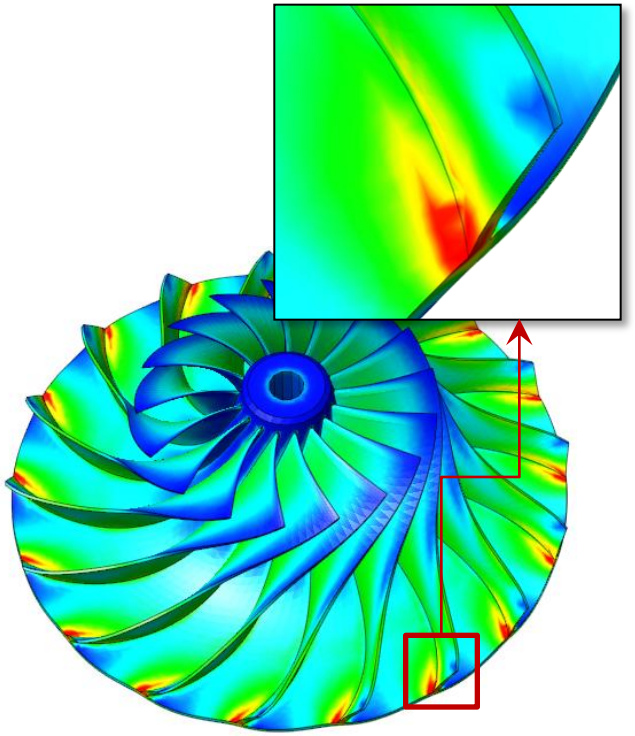
- **Analysis Goal:** Structural analysis of impellor under the centrifugal force
- **Analysis Type:** Linear static analysis (centrifugal force)



Constraints after connecting rigid body to the center

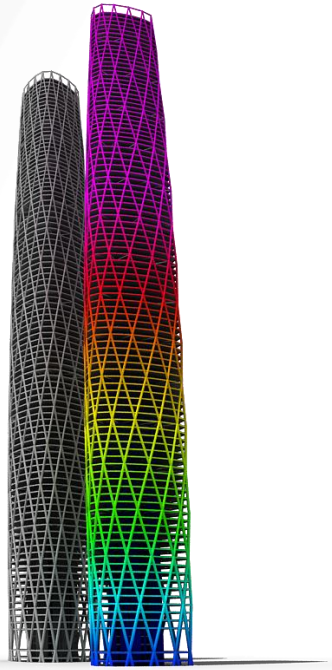


Displacement and deformed shape



Effective stress distribution

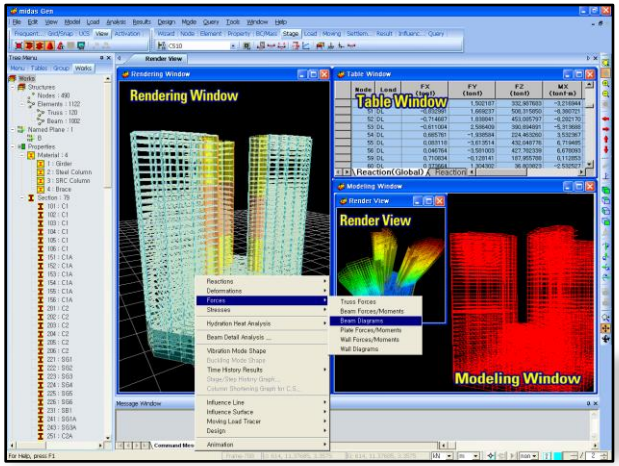
03 Building Engineering



03. Building Engineering – midas Gen

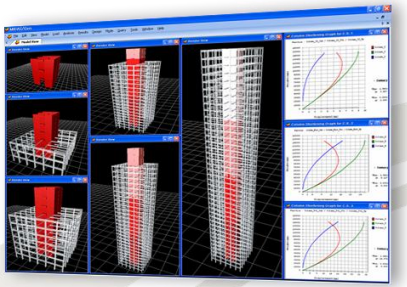
midas Gen

Integrated Design System for Building and General Structures

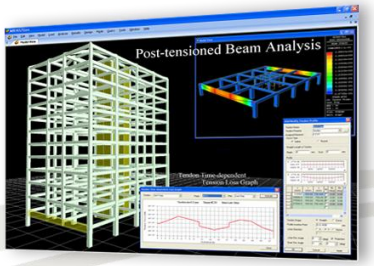


- Released in 1996
- Distributed worldwide
- Dominant market share worldwide
- High profile project applications

  (Burj Dubai, 2008 Olympic Main Stadium)

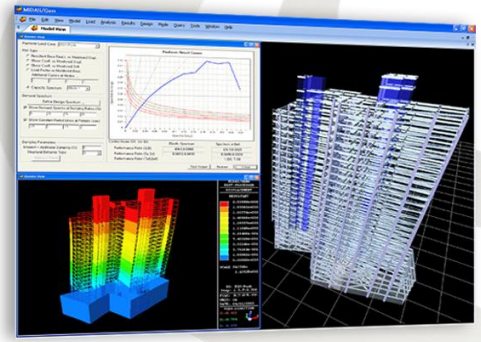


[Construction Stage Analysis]

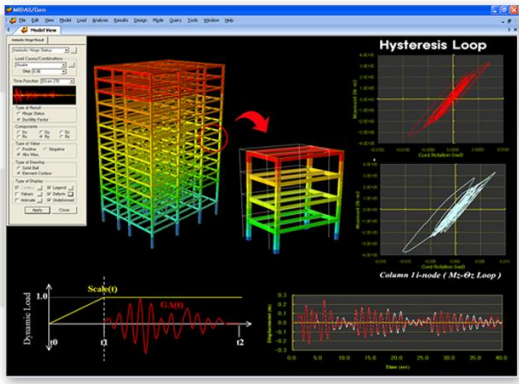


[Post Tension Analysis]

midas Gen



[Pushover Analysis]

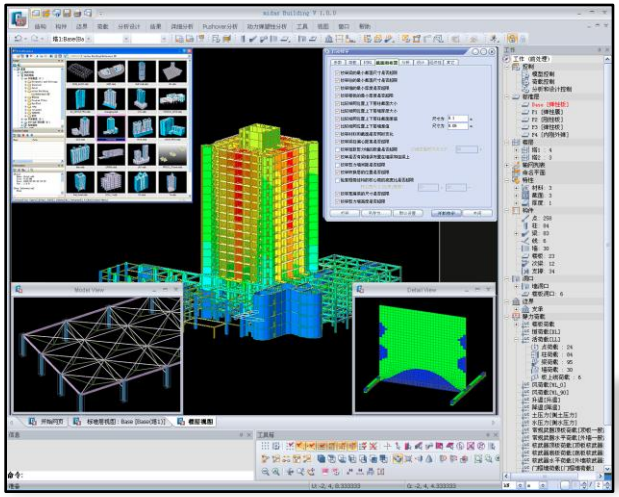


[Time History Analysis]

03. Building Engineering – midas Building

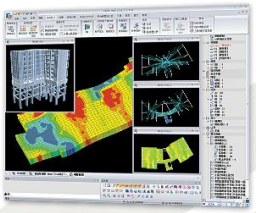
midas Building

All-in-One Total Solution for Strctural Design of Buildings

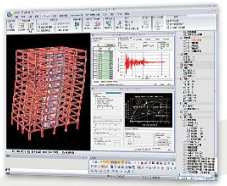


[Structure Master]

- Released in 2009
- New Paradigm for Building Structures
  - **Structure Master** - Integrated Analysis & Design for Building Structures
  - **Foundation Master** - Integrated Analysis & Design for Foundation Structures
  - **Building Modeler** - Automatic Generation of 3D Structural Analysis Model
  - **Building Drawer** - Automatic Generation of Structural Working Drawings
  - **Detail Analysis** - Slab & Wall Detail Analysis
  - **Nonlinear Analysis** - Static & Dynamic Inelastic Analysis

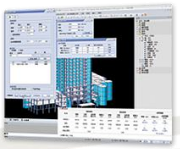


[Detail Analysis]



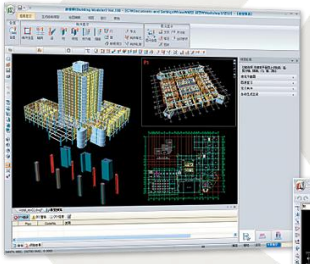
[Nonlinear Analysis]

[Check System]

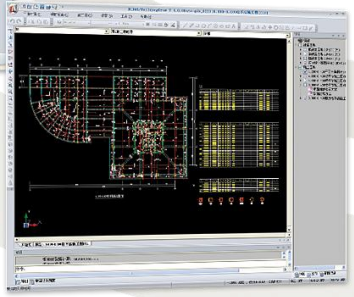


[Optimal Design]

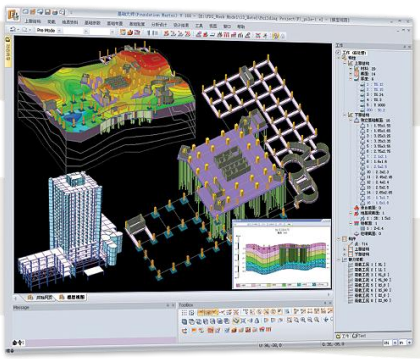
midas Building



[Building Modeler]



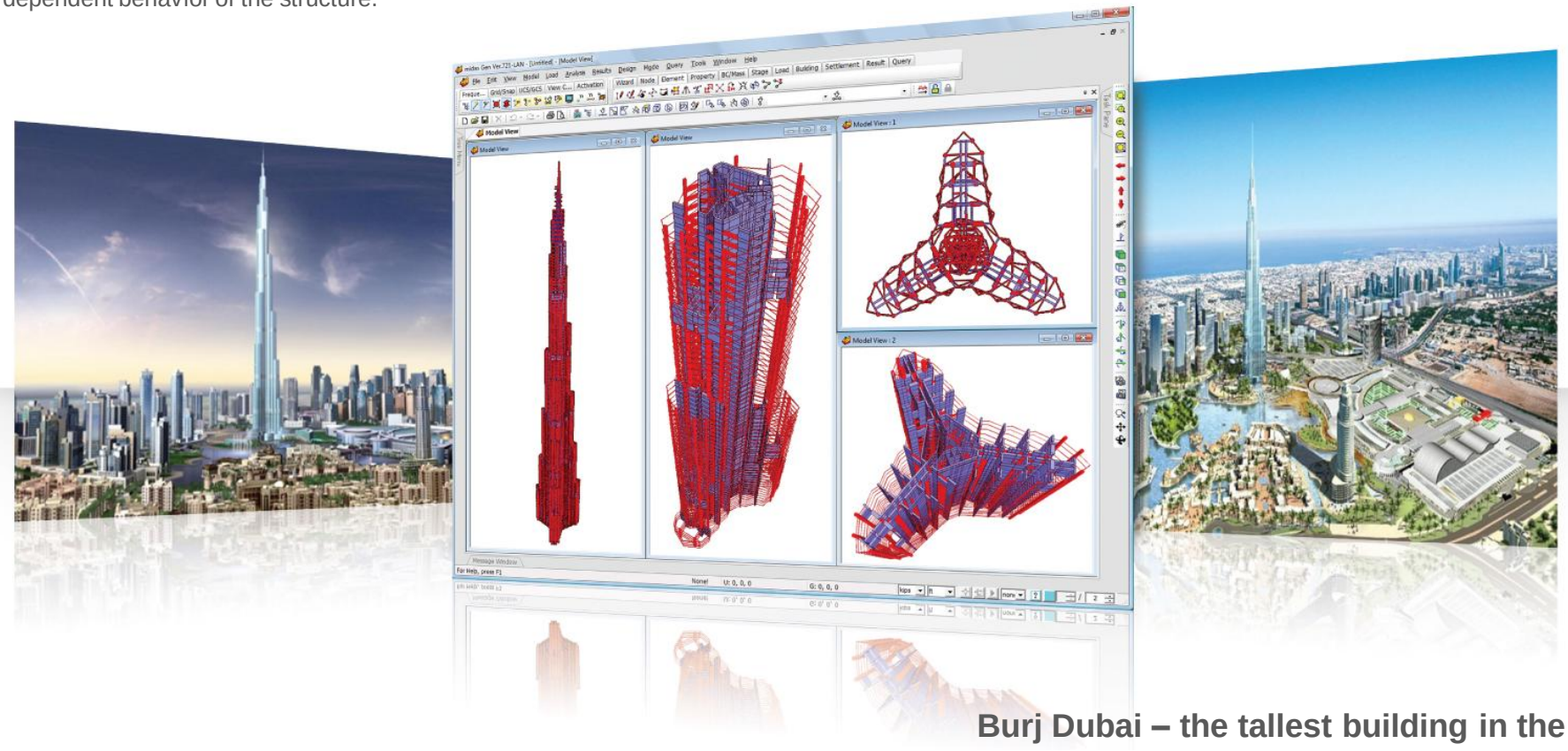
[Building Drawer]



[Foundation Master]

Burj Dubai in UAE

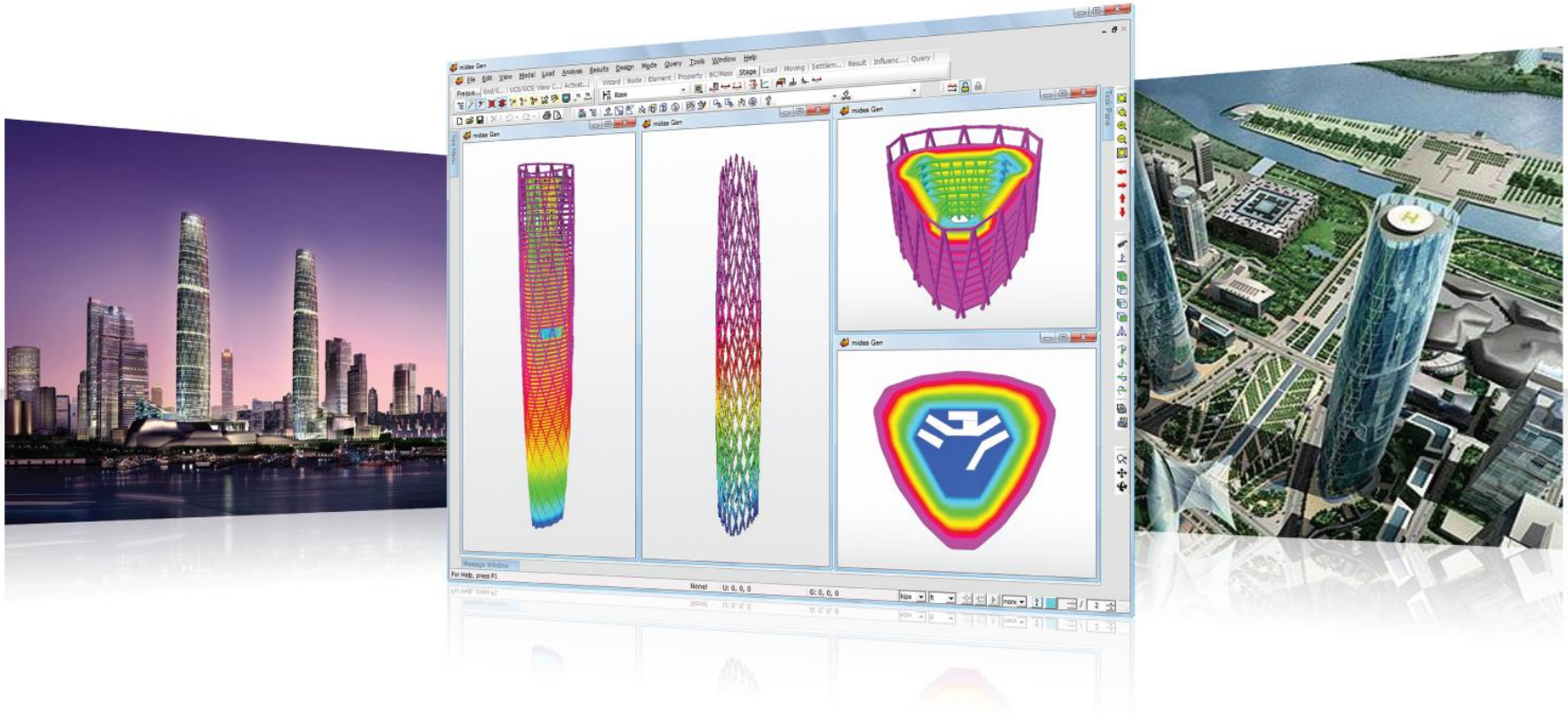
Burj Dubai is the tallest building in the world and will be completed in 2009. The structural system consists of a “buttressed” core and perimeter columns, with a six-sided central core, or hexagonal hub. The result is a tower that is extremely stiff torsionally. The primary structural system is reinforced concrete.
To account for the time-dependent concrete effects, a comprehensive construction sequence analysis incorporating the effects of creep and shrinkage was utilized to monitor and adjust for the time-dependent behavior of the structure.



Burj Dubai – the tallest building in the world

Guangzhou Twin Tower in China

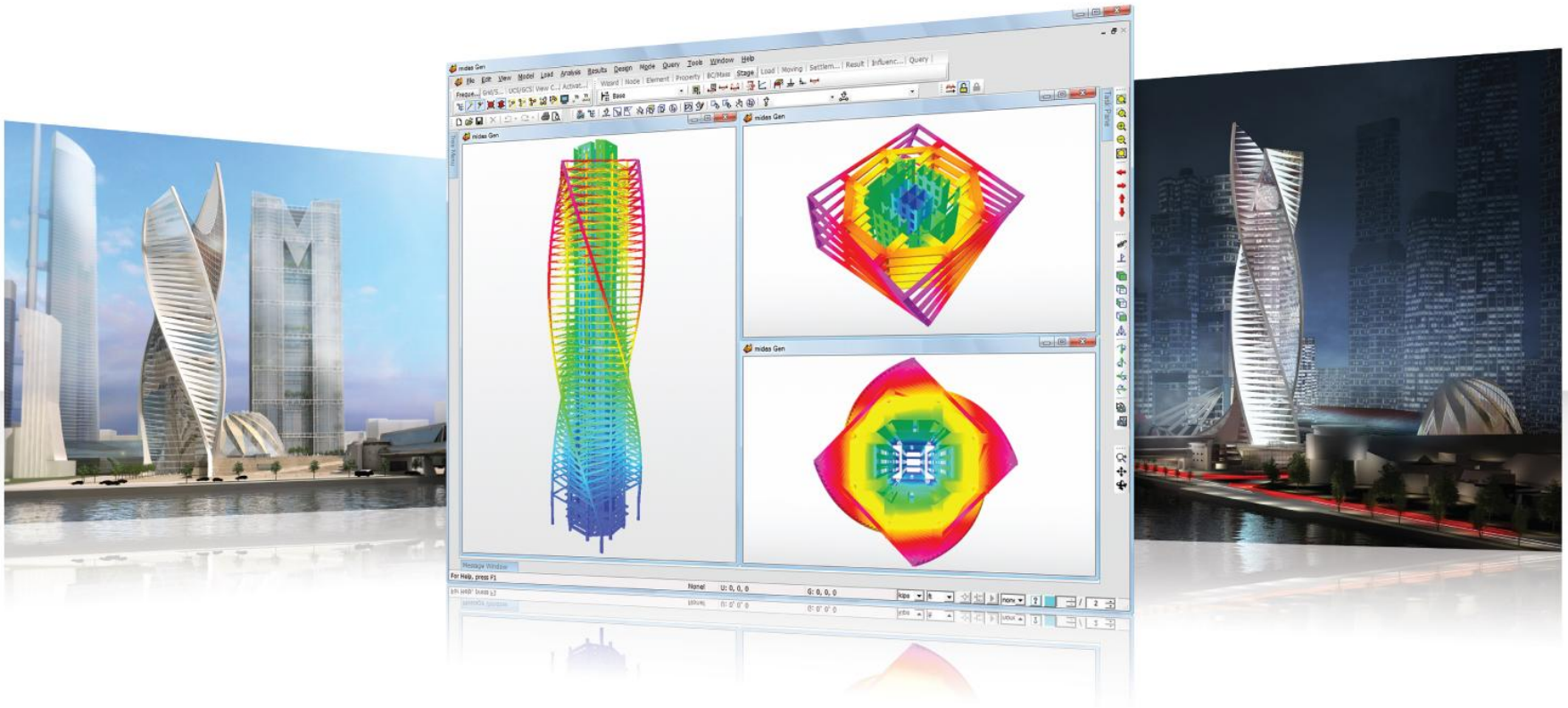
In most buildings the façade or its “face” is the outward visual appearance or expression of a building. It forms the most significant manifestation of the building’s ‘architecture’ to the outside world. However the façade must also perform a number of important roles for the actual occupants and owners of the building. Large high profile buildings and their facades must contribute positively towards more global issues such as long term sustainability and energy use.



Guangzhou Twin Tower – height 432m, 107 stories

Moscow City Palace Tower in Russia

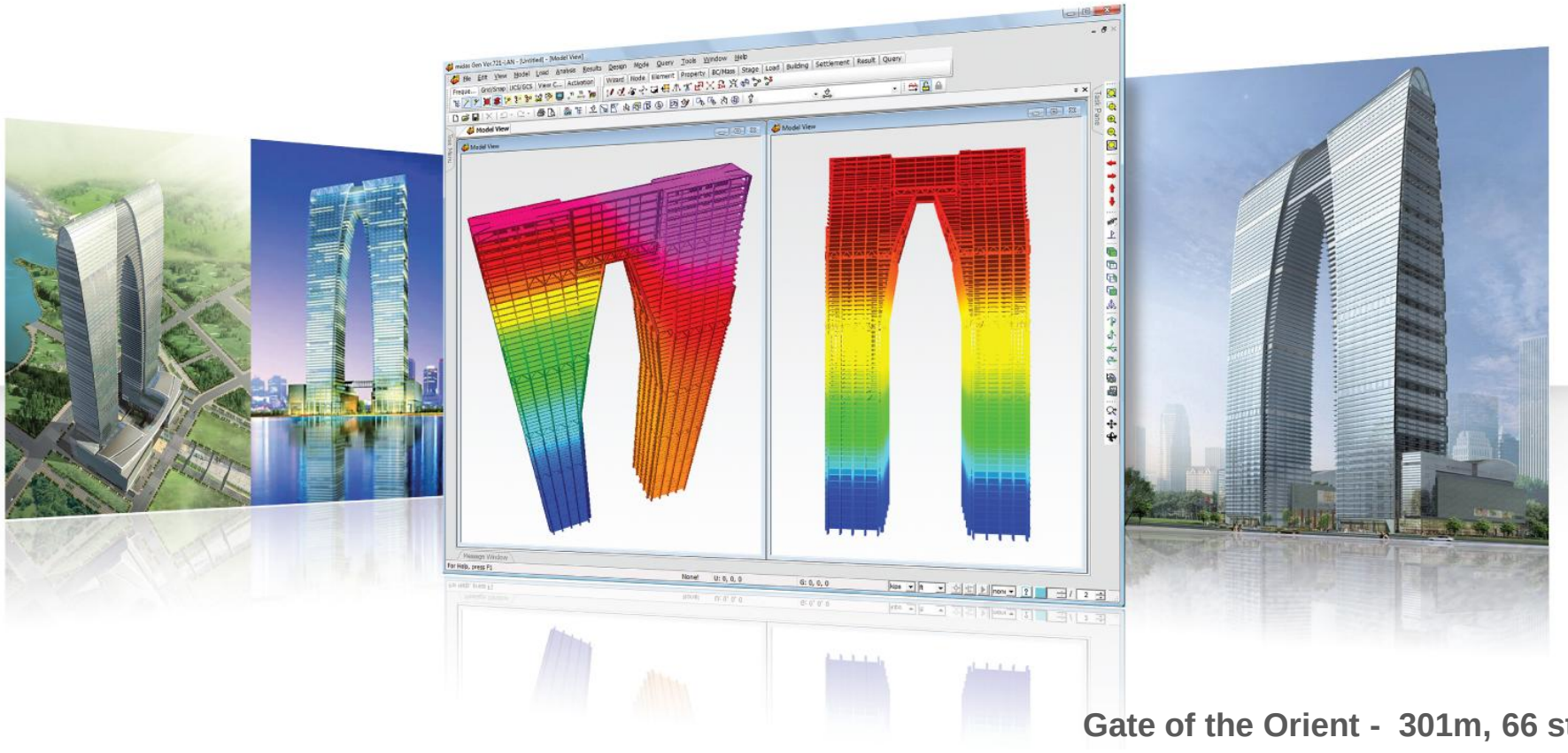
The building, a twisting 46-storey tower that is due for completion in the summer 2011, will serve as a prominent entryway into the Moscow-City district occupying its southeastern plot, which connects to a completed pedestrian bridge.
City Palace will contain about 1.8 million square feet of space, divided evenly between retail, administrative and office functions, with a parking lot planned on three underground levels.



Moscow City - Height 217m, 46 stories, Twisting Concrete System

Gate of the Orient in China

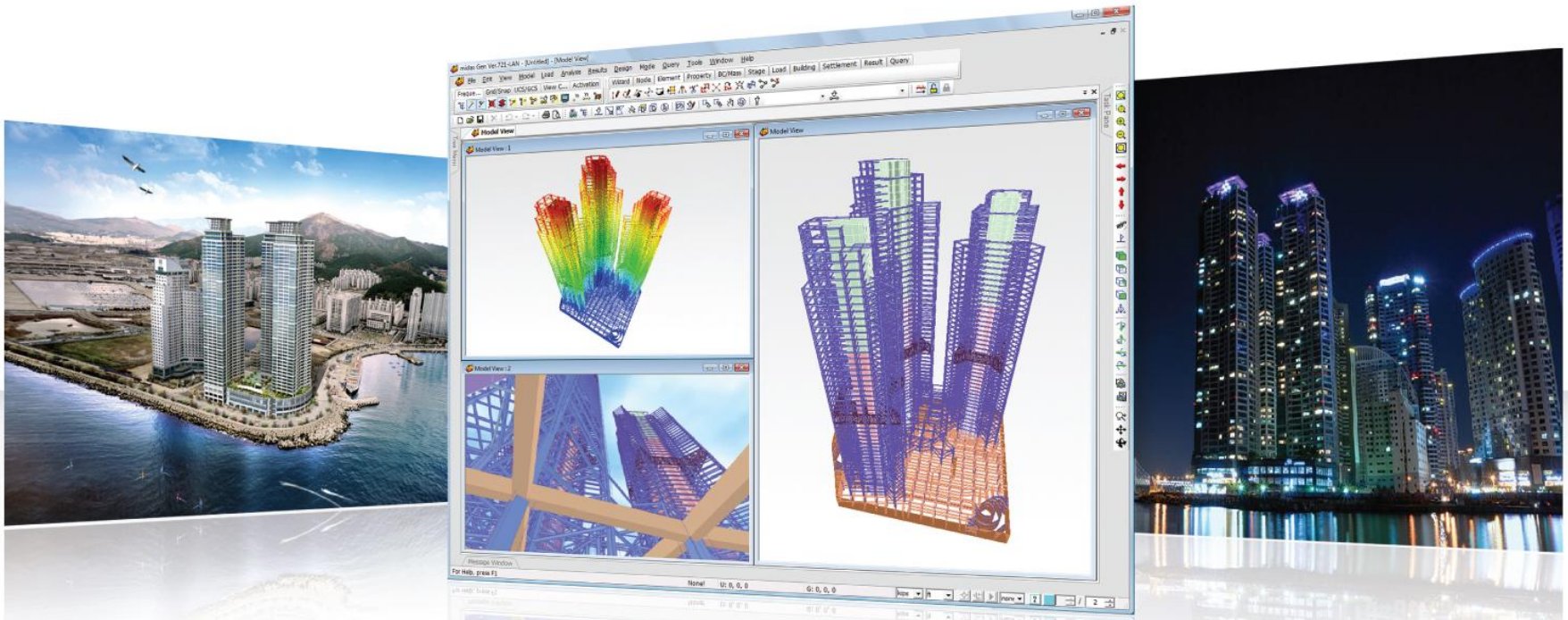
This 66-story building is composed of two main towers that unite to form an arch, symbolizing a gateway.
The arch is an important symbol in Suzhou, where the 2,500-year-old Pan Gate also calls home.
The Gate of the Orient is its modern equivalent. The simple geometry and vivid design are the perfect symbol of China, marking the country as the forefront of development in the Far East.



Gate of the Orient - 301m, 66 stories

The # Adelis in Korea

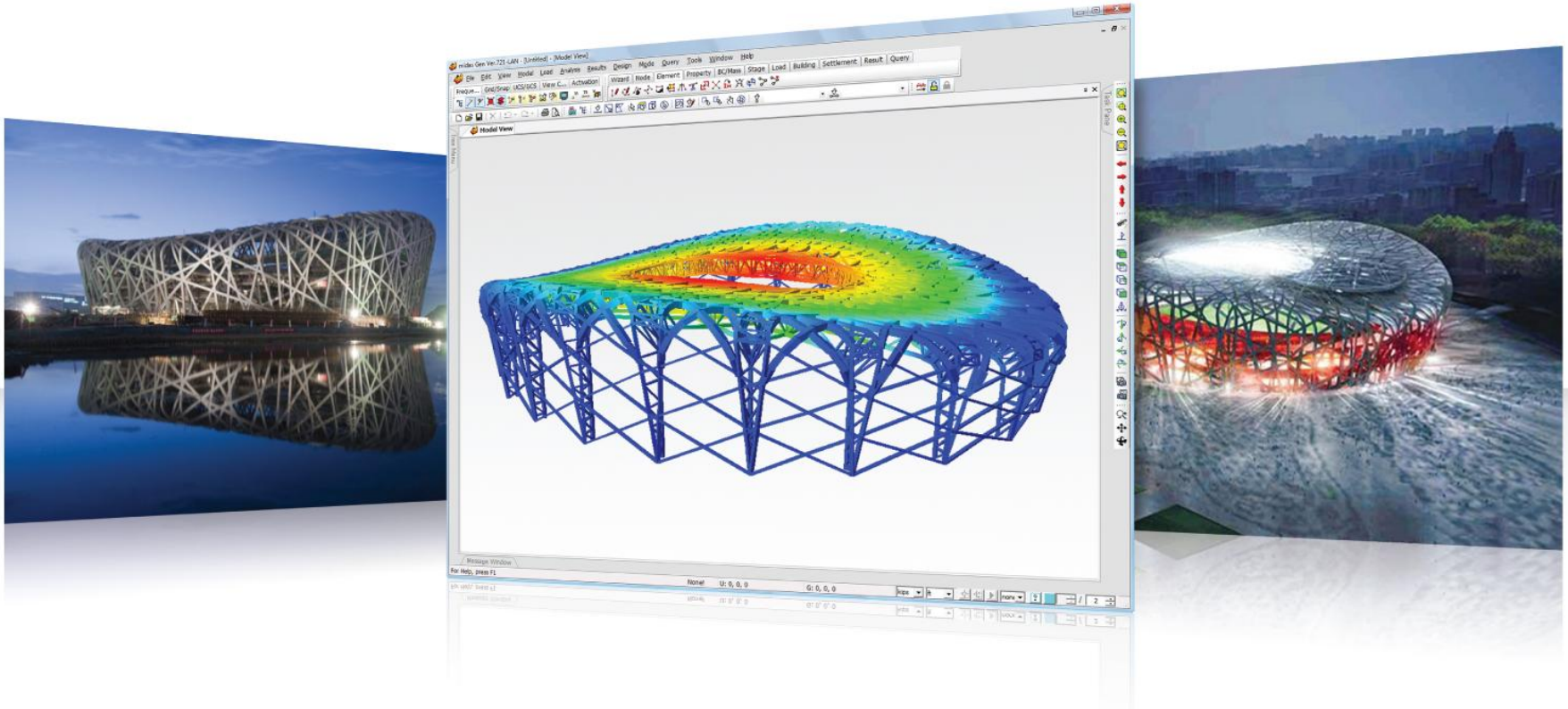
The # Haeundae Adelis comprises three complete RC skyscrapers designed with high strength concrete.
Housing an indoor golf club, swimming pool, fitness center and business facilities, it is also ideally located such that 90% of the residents have an ocean view of the Pacific.



The # Adelis - Height 164m, 47stories

Beijing National Stadium in China

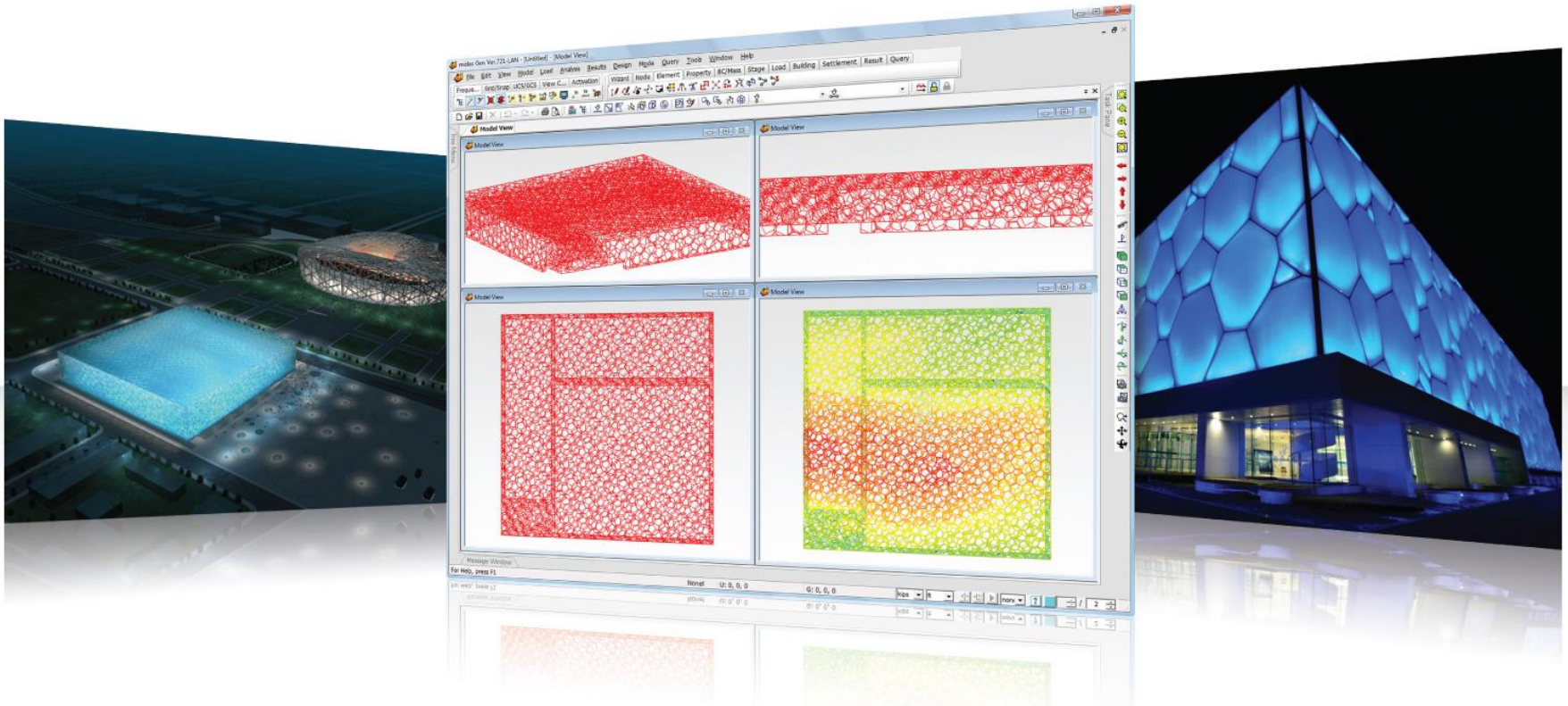
The stadium is referred to as the ‘Bird’s Nest’ because of its saddle-shaped steel roof and interwoven façade.
The roof measures 330m long by 220m wide and weighs a total of 45,000 tones. Its upper surface is clad with ethylene tetra fluoro ethylene (ETFE) panels which let in natural light, and its lower surface has an acoustic membrane which reflects and absorbs sound. This maintains the atmosphere in the stadium.



2008 Beijing main Olympic stadium – Total floor area 258,000m^2, 91,000 people maximum capacity

Beijing National Aquatics Center in China

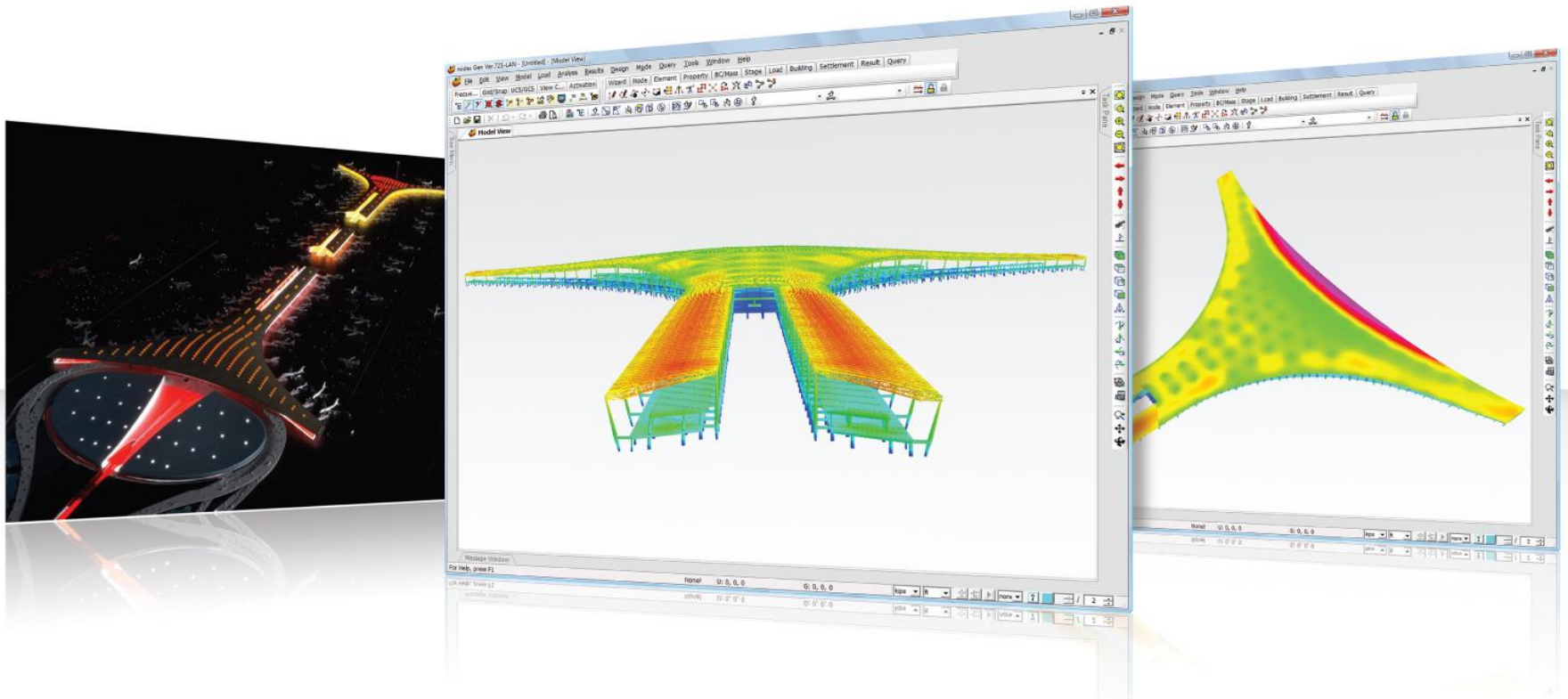
The National Aquatic Center hosted the diving, swimming and synchronized swimming events at the 2008 Beijing Summer Olympic Games, known as the Water Cube, it has a bubbled surface that absorbs solar radiation and reduces thermal loss. The sunlight allowed into the structure also acts as a heat source for the swimming pool water. The entire structure is based on a unique lightweight-construction, developed by PTW and CSCEC with ARUP, and derived form the structure of water in the state of aggregation of FOAM.



Beijing National Aquatics Center - Total floor area 87,283m^2, 17,000 people maximum capacity

Terminal 3 at Beijing Capital International Airport in China

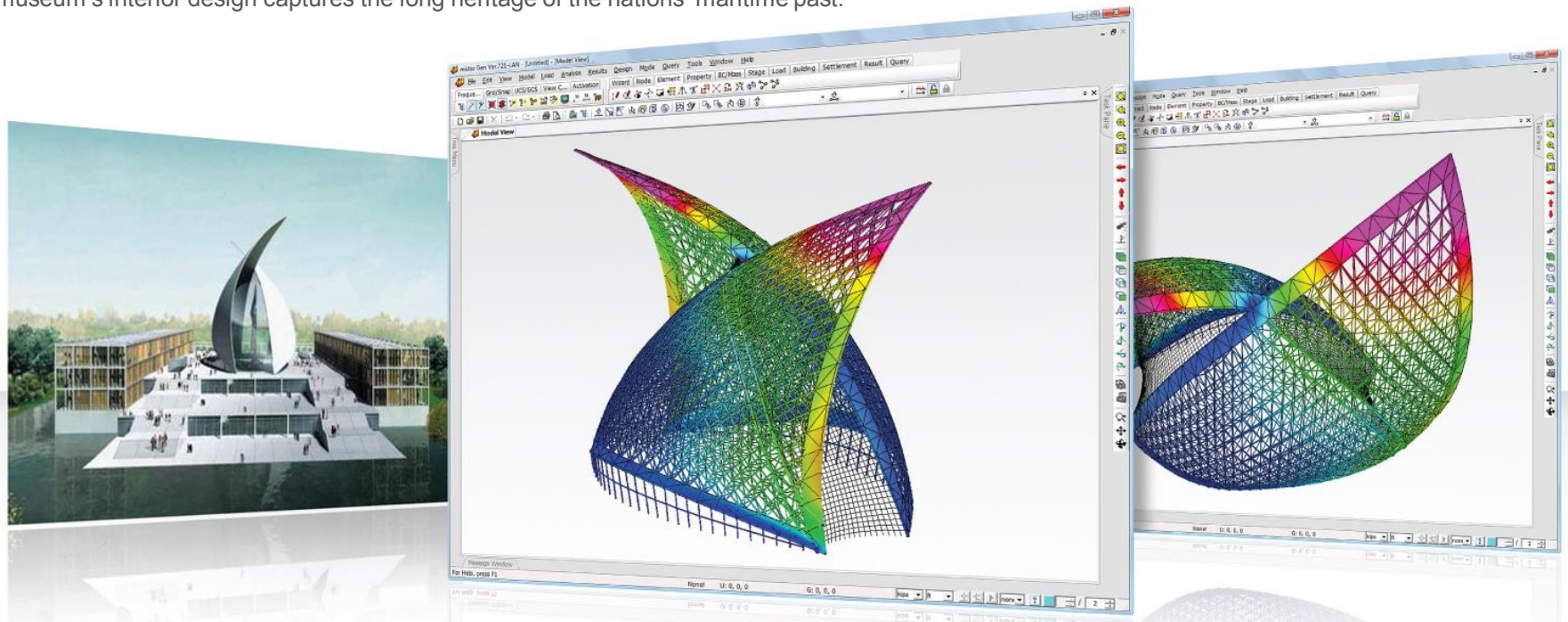
This new terminal is arguably the largest and most advanced airport building in the world – a celebration of aviation and poetry in flight. With its dragon-like form and traditional Chinese colors and symbols, it has become an awe-inspiring gateway to Beijing.



Terminal 3 of Beijing Capital International Airport - Total floor area 986,000m^2 / Cost US$ 3.65 billion

Maritime Museum in China

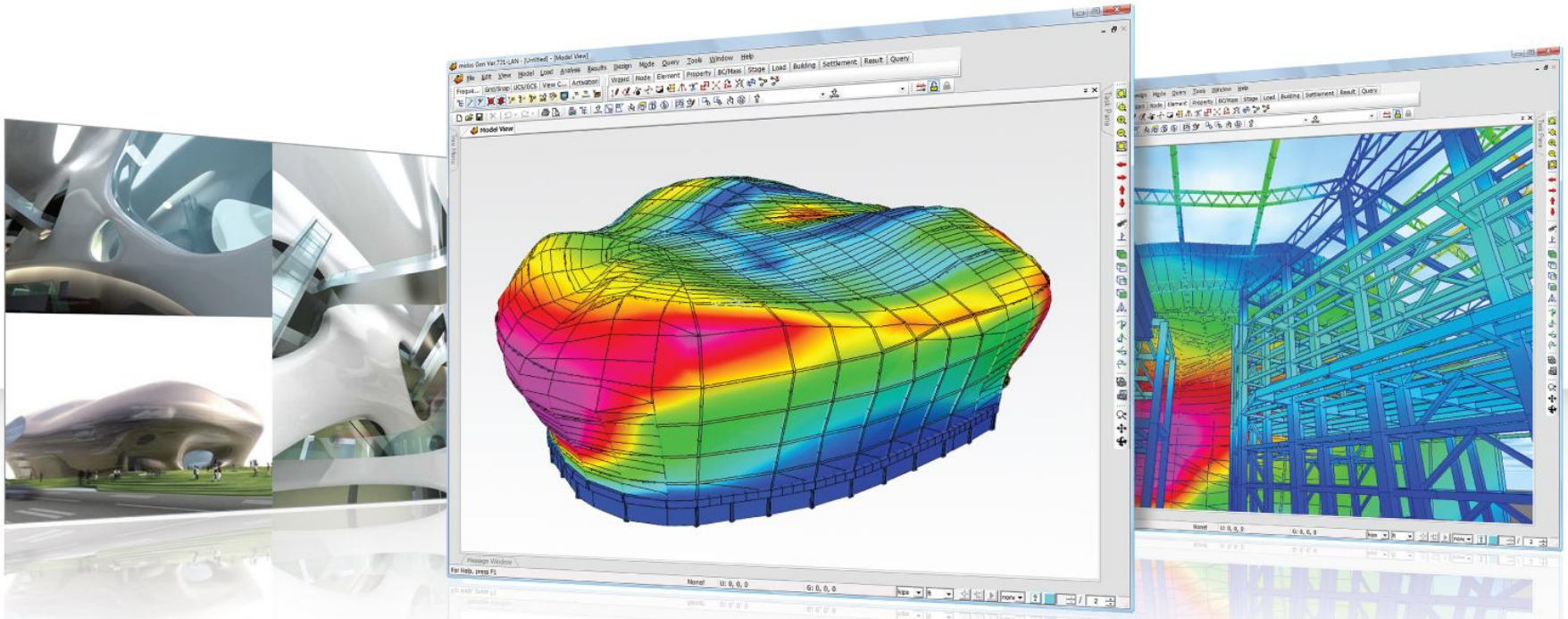
The architectural design exhibits an exterior that is both simple and dramatic, drawing on the dynamic quality of navigation.
The design also serves to integrate artistic, cultural and environmental elements within the overall theme of navigation.
High tech elements are incorporated including DLP projection systems, infrared sensors, acoustic control and water curtain technology to merge dramatic, artistic and environmental displays. The museum's interior design captures the long heritage of the nations' maritime past.



Maritime Museum - Total floor area 46,400m2, Shell Structure

Erdos Museum in Mongolia

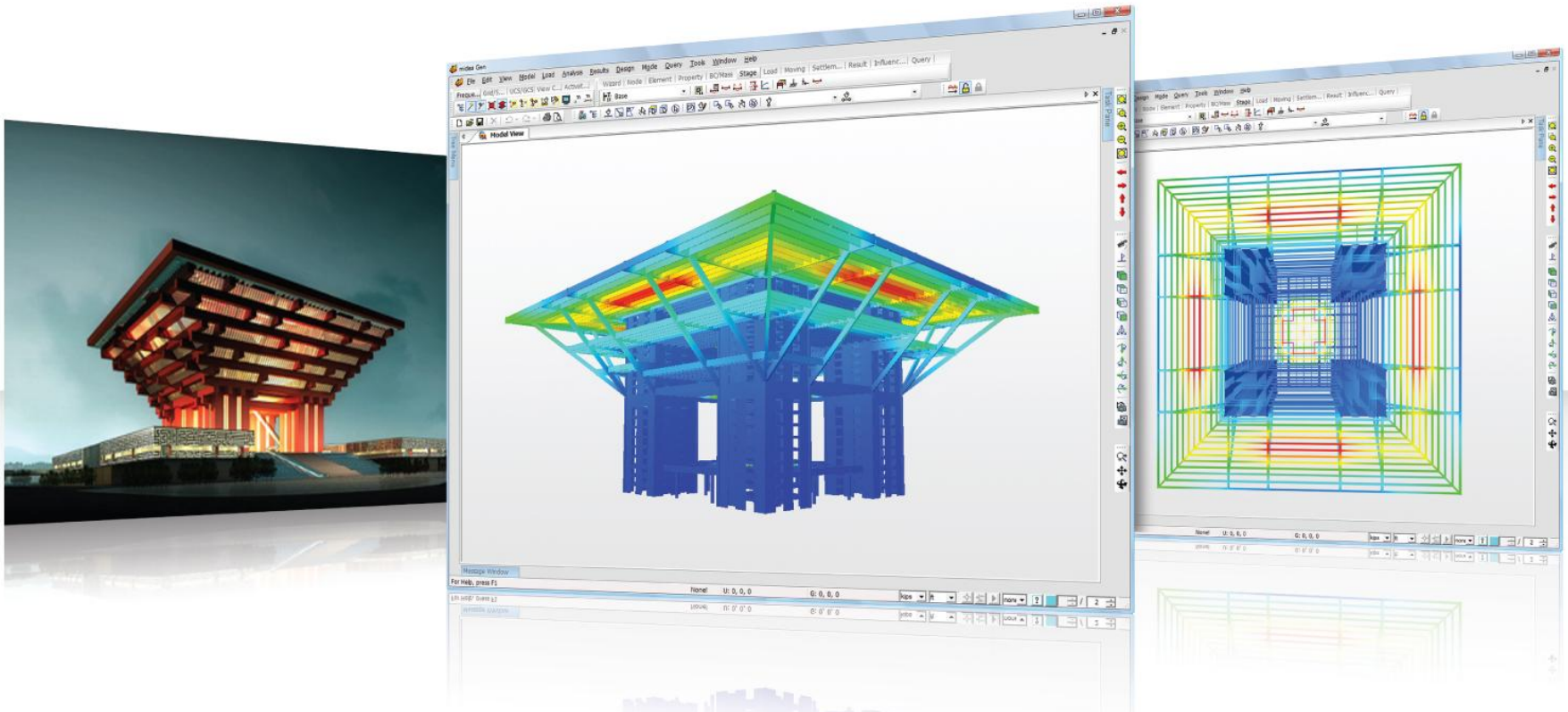
Located in a fast-developing city, Erdos Meseum is a natural, irregular nucleus that contrasts the growing city landscape.
Encircled by reflective metal louvers, this unique design completely separates the interior setting from the outside.
From the exterior, the louvers create an artistic, fragmented reflection of the museum's environment.



Erdos Museum - Total floor area 41,227m^2, Glass Dome

China Pavilion Oriental Crown

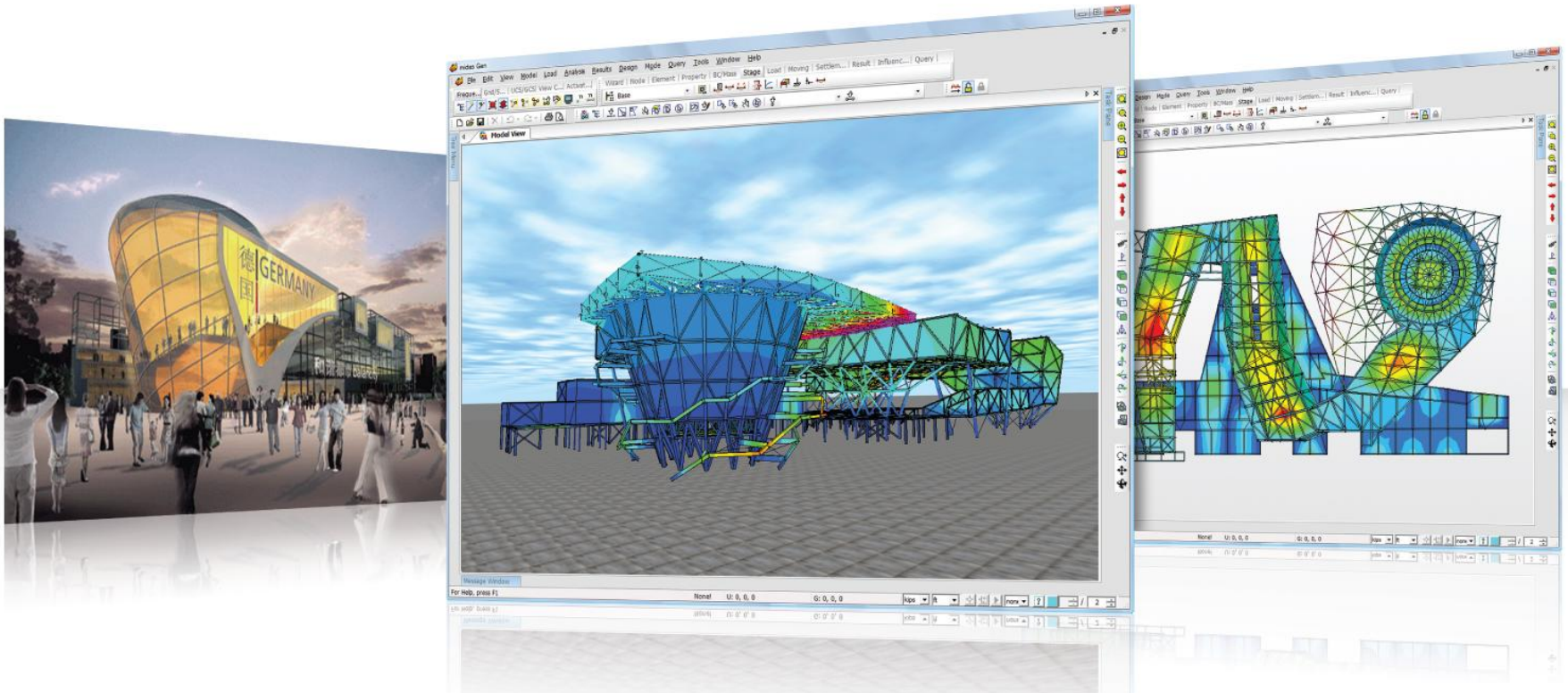
The China Pavilion is designed with the concept of “Oriental Crown.” The traditional Chinese wooden structure element, Dougong brackets, is introduced. Its main colour is “Gugong (Forbidden City) Red” which represents the taste and spirit of Chinese culture. The China Pavilion consists of the 47,000-square-meter Chinese national pavilion, 38,000-square-meter regional joint pavilion and 33,000-square-meter pavilion of Hong Kong, Macao and Taiwan.



China Pavilion Oriental Crown - Total floor area 47,000m^2

Genmany Pavilion

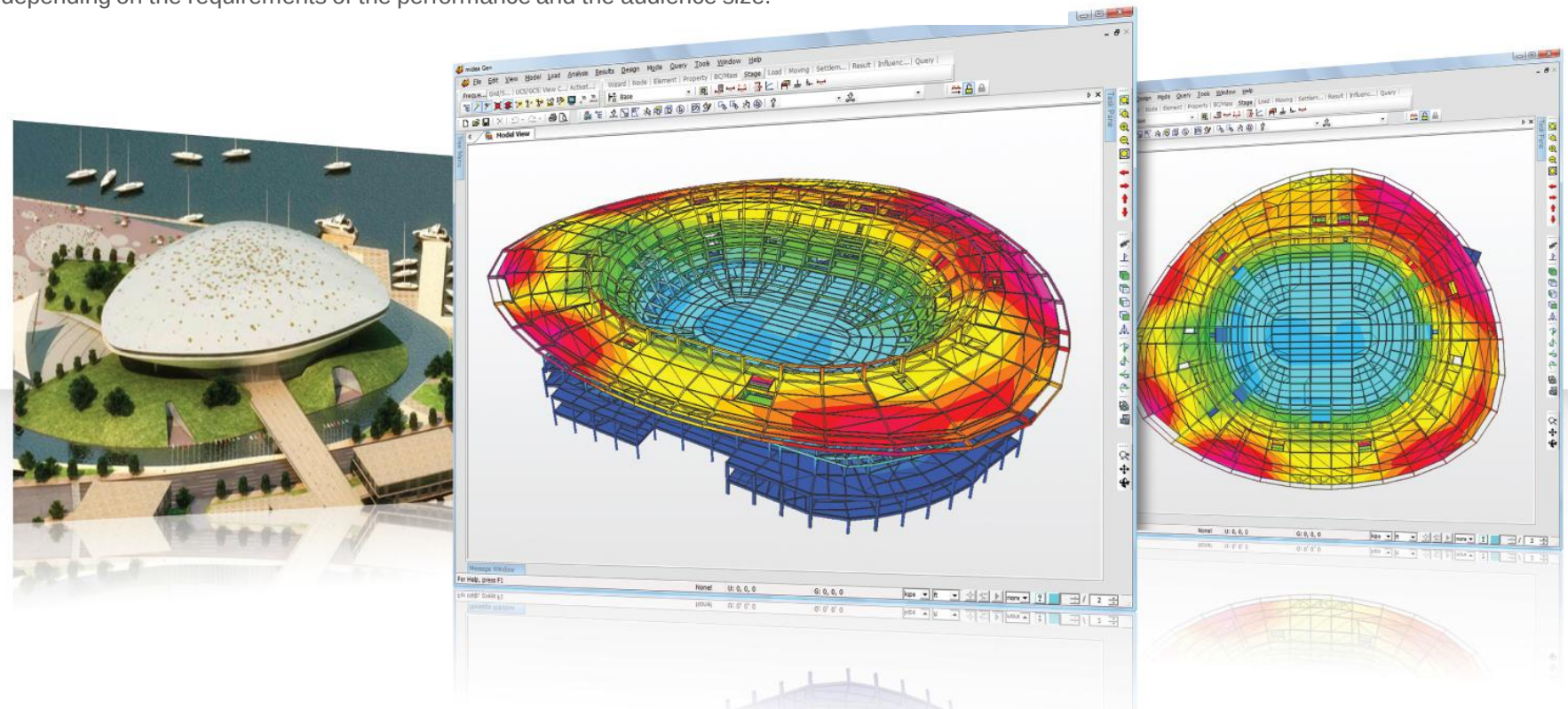
The 6,000-square-meter Germany Pavilion, named “Balancity”, will showcase typical urban life in Germany and introduce how the country’s products help solve urbanization problems.
The German government invested 30 million Euros (US$47.34 million) in the pavilion, said Deitmar Schmitz, commissioner general of the German Section in the Expo.



Germany Pavilion - Total floor area 6,000m²

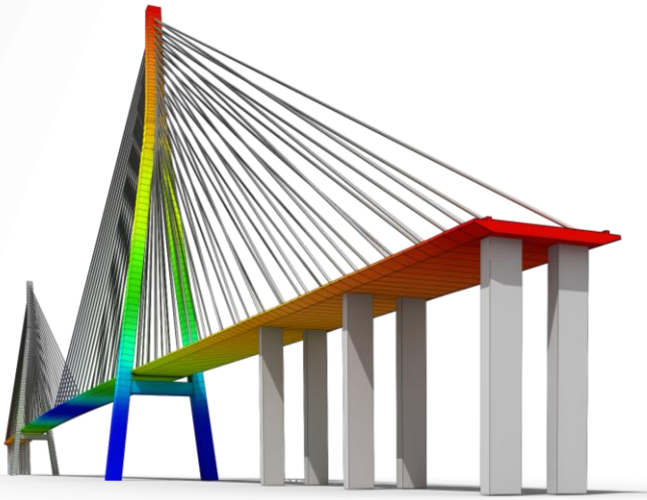
Performing Art Center

The performance center, which will hold most of the Expo performances during the six-month Expo, was the last of the five permanent Expo buildings to start construction when work began in December 2007. The other four are the China Pavilion, Theme Pavilion, Expo Center and Expo Boulevard. The 126,000-square meter center will be the largest comprehensive performance arena in China. It will have two floors underground and four above ground. The seating configuration of the main auditorium, which has a center stage, can be changed to accommodate 4,000, 8,000, 12,000 or 18,000 seats depending on the requirements of the performance and the audience size.



2010 Shanghai Expo Performing Art Center – the biggest art center in China (Total floor area 126,000m^2)

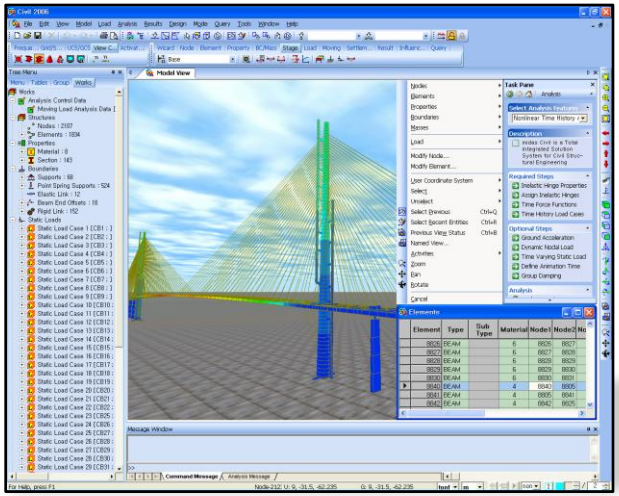
04 Bridge Engineering



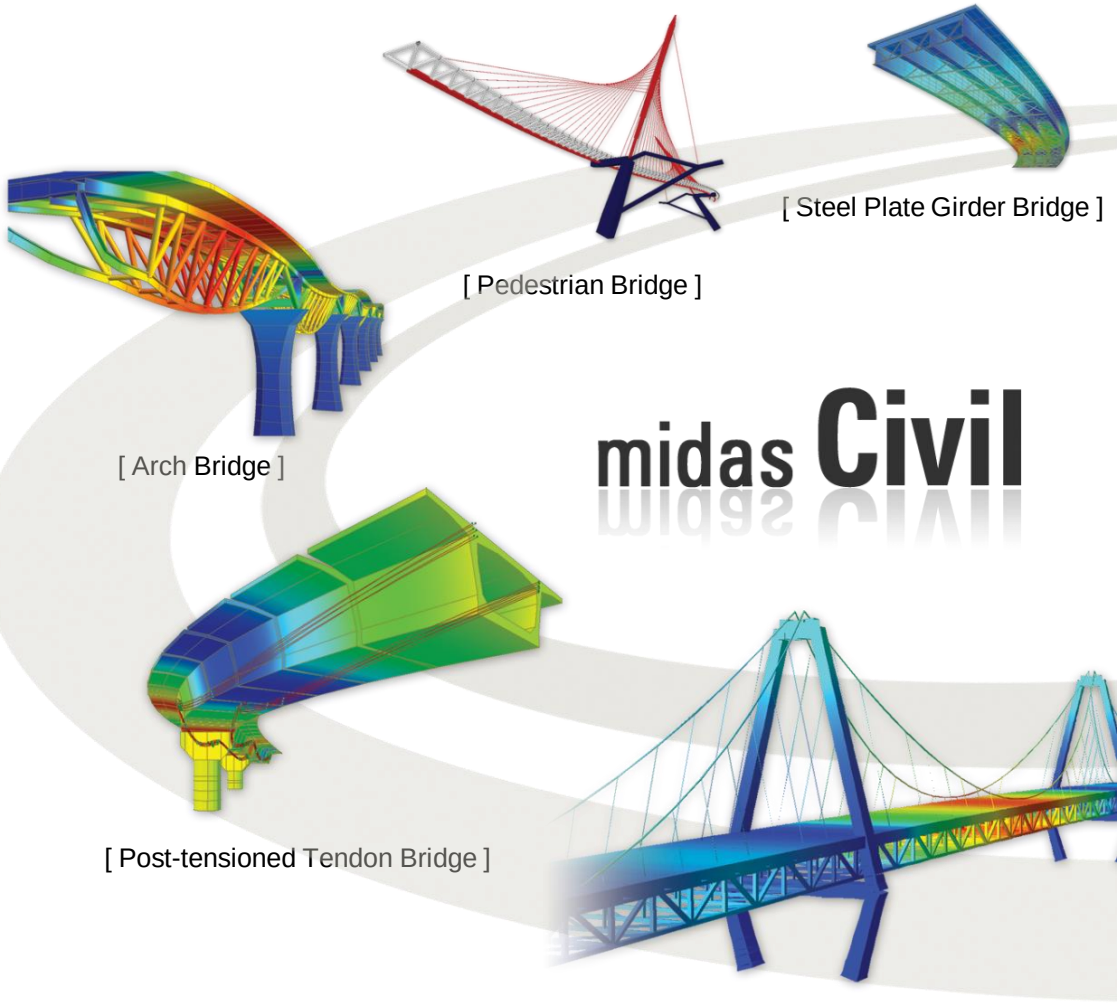
04. Bridge Engineering – midas Civil

midas Civil

Integrated Solution System for Bridge and Civil Structures

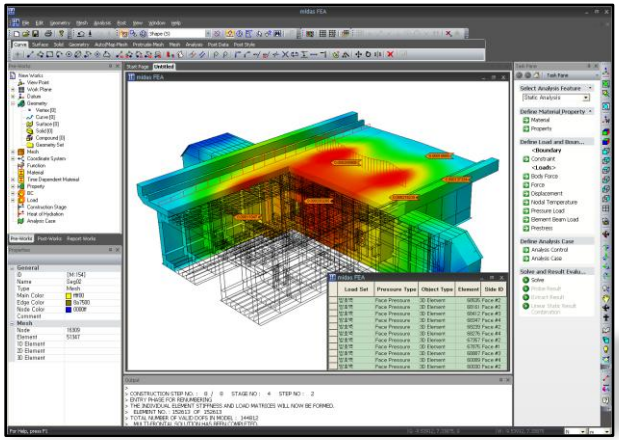


- Released in 2001
- Distributed worldwide
- Leader in market share for high-end bridges
- Major projects – Sutong br. (longest cable stay)
  Stonecutters (2nd longest cable stay) &
  Russkiy Island to become the longest cable stay



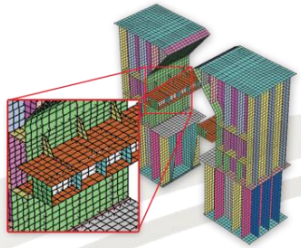
midas FEA

Advanced Nonlinear and Detail Analysis System

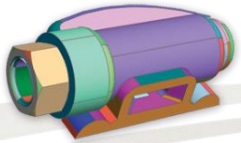


- Released in 2007 for high end nonlinear analysis
- Distributed worldwide
- Plan to become a dominant product

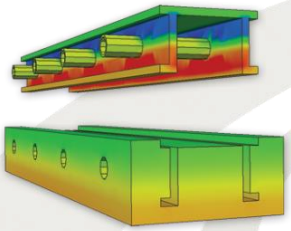
  for high-end FE analysis market in civil engineering



[Map-mesh Generation]

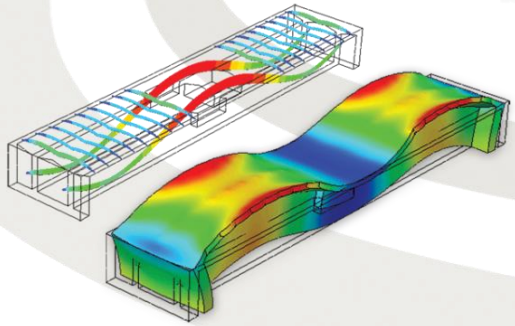


[Geometry Modeling]

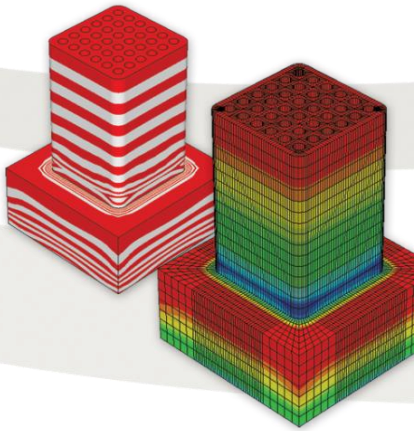


[Interface Analysis]

midas FEA



[Reinforcement Analysis]



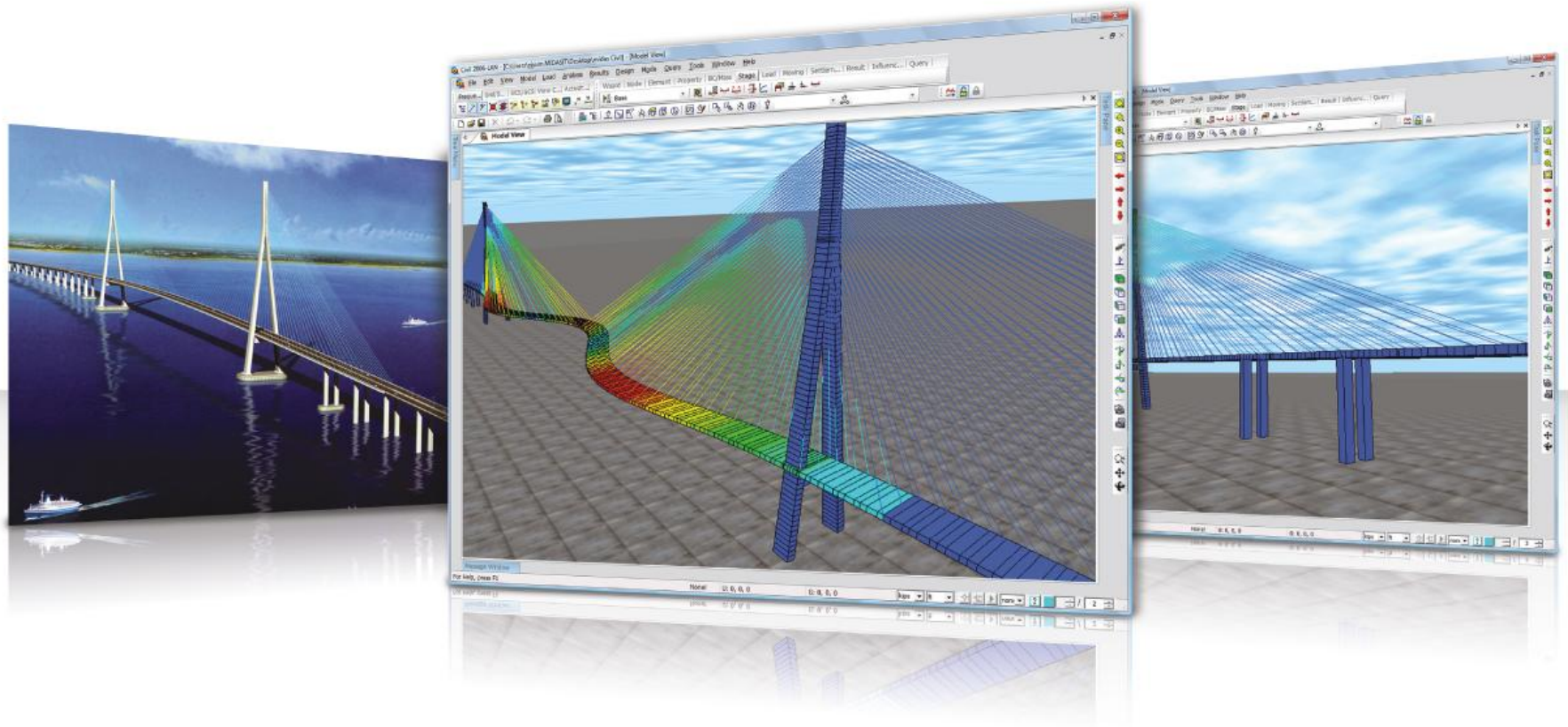
[Various Contour Plot]

Sutong Bridge in China

The total length of the crossing is 8,206m. The main bridge is a double-cable-plane, double-pylon steel box girder cable-stayed bridge. The central span of 1,088m will have a navigation clearance of 62m, which will allow fourth and fifth generation container ships to pass through in all weather. The bridge and its approaches will be of a six-lane expressway design, with a maximum speed of 100km/h. This sets a record of being the world's longest cable stay bridge to date.

Overview

Overall bridge length	8,206 m
Main span	1,088 m
Tower height	306 m
Location	Crossing Yangtze River in China between Nantong and Changshu
Function/usage	Roadway Bridge
Designer	Jiangsu Province Communications Planning and Design Institute
Cost of construction	$750 Million
Elements	Truss: 272 / Beam: 760
Type of analysis	Construction Stage Analysis with Time-Dependent Effects Cable Tension Optimisation / Geometric Nonlinear Analysis Eigenvalue Analysis / Thermal Analysis / Buckling Analysis



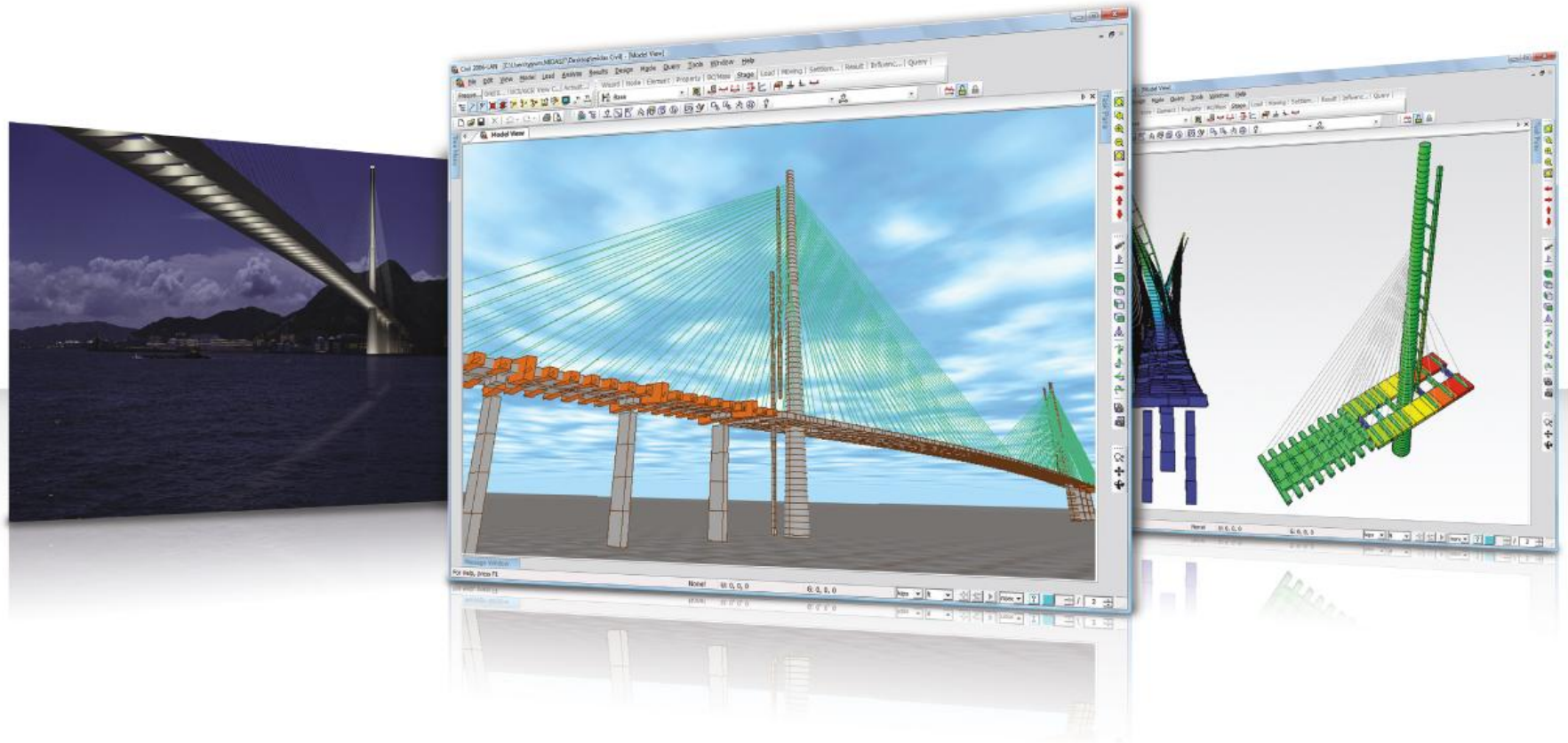
Sutong Bridge – World's longest cable stayed bridge (Total lenth: 8,206m, Center span: 1,088m)

Stonecutters Bridge in Hong Kong

The concept is for a cable-stayed bridge with a twin aerodynamic deck suspended from two 295m-high single pole towers. These towers will have bases measuring 24m X 18m tapering to 7m in diameter at the top, and the deck will allow a navigation clearance of 73.5m over the full entrance to the Container Port. This sets a record of being the world's 2nd longest cable stay bridge to date for which full erection engineering was carried out.

Overview

Overall bridge length	1,600 m
Main span	1,018 m
Tower height	295 m
Location	Between Tsing Yi and Kowloon City, Hong Kong, China
Function/usage	Roadway Bridge
Designer	Ove Arup & Partners
Cost of construction	$355 Million
Elements	Truss: 224 / Beam: 1638
Type of analysis	Construction Stage Analysis with Time-Dependent Effects Cable Tension Optimisation / Geometric Nonlinear Analysis Eigenvalue Analysis / Thermal Analysis / Buckling Analysis



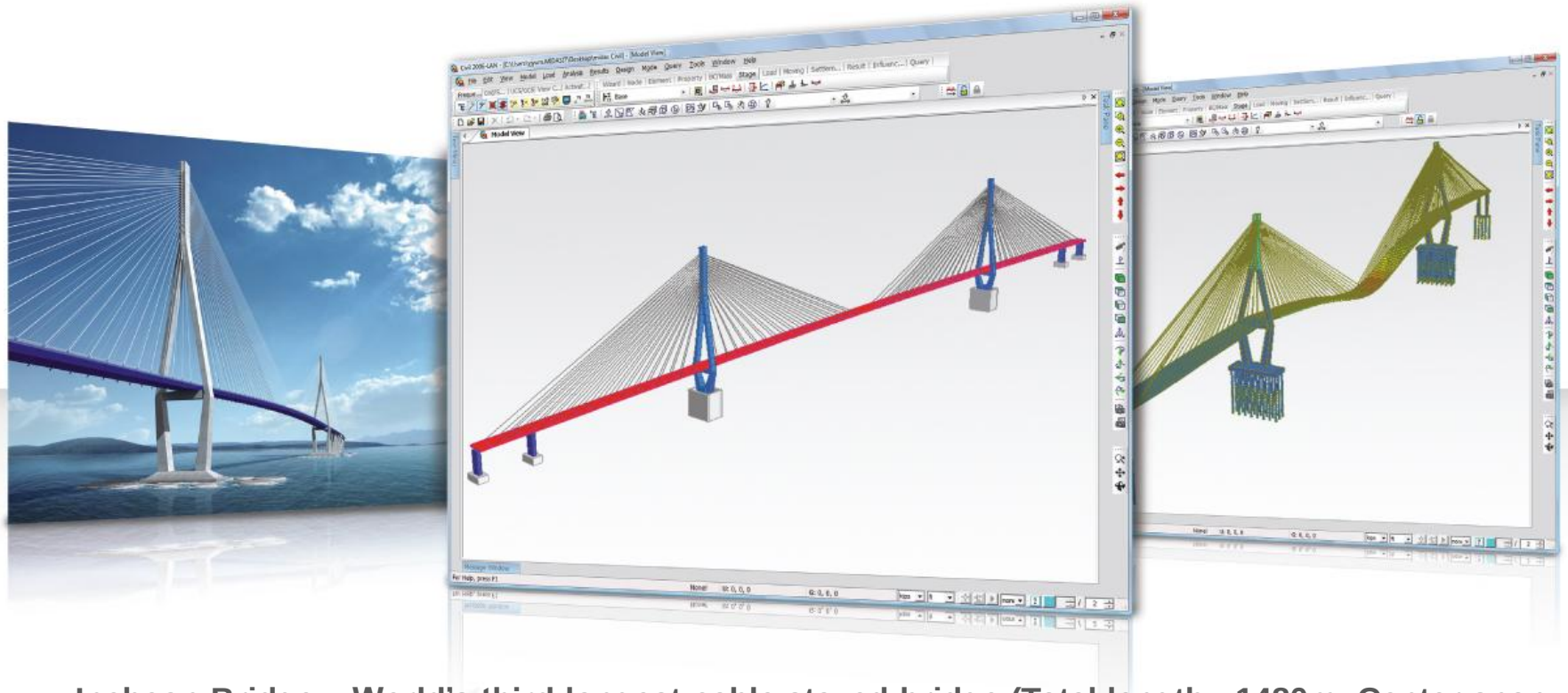
Stonecutters Bridge – World's second-longest cable stayed bridge (Total length: 1,600m, Center span: 1,018m)

Incheon Bridge in Korea

The Incheon 2nd Bridge is a cable-stayed bridge of a steel deck box supported on two inverted Y-shape main concrete towers. In the model of this bridge, the influence of the piled foundation has been reflected. This holds the record of being the world's 3rd longest cable stay bridge to date.

Overview

Overall bridge length	1,480 m
Main span	800 m
Tower height	230 m
Location	Incheon, South Korea
Function/usage	Roadway Bridge
Designer	Seoyeong Engineering and Chodai Co., Ltd
Year of completion	2009
Cost of construction	$ 2.4 Billion
Elements	Truss: 176 / Beam: 1653
Type of analysis	Construction Stage Analysis with Time-Dependent Effects Cable Tension Optimisation / Geometric Nonlinear Analysis Vehicle Load Optimisation



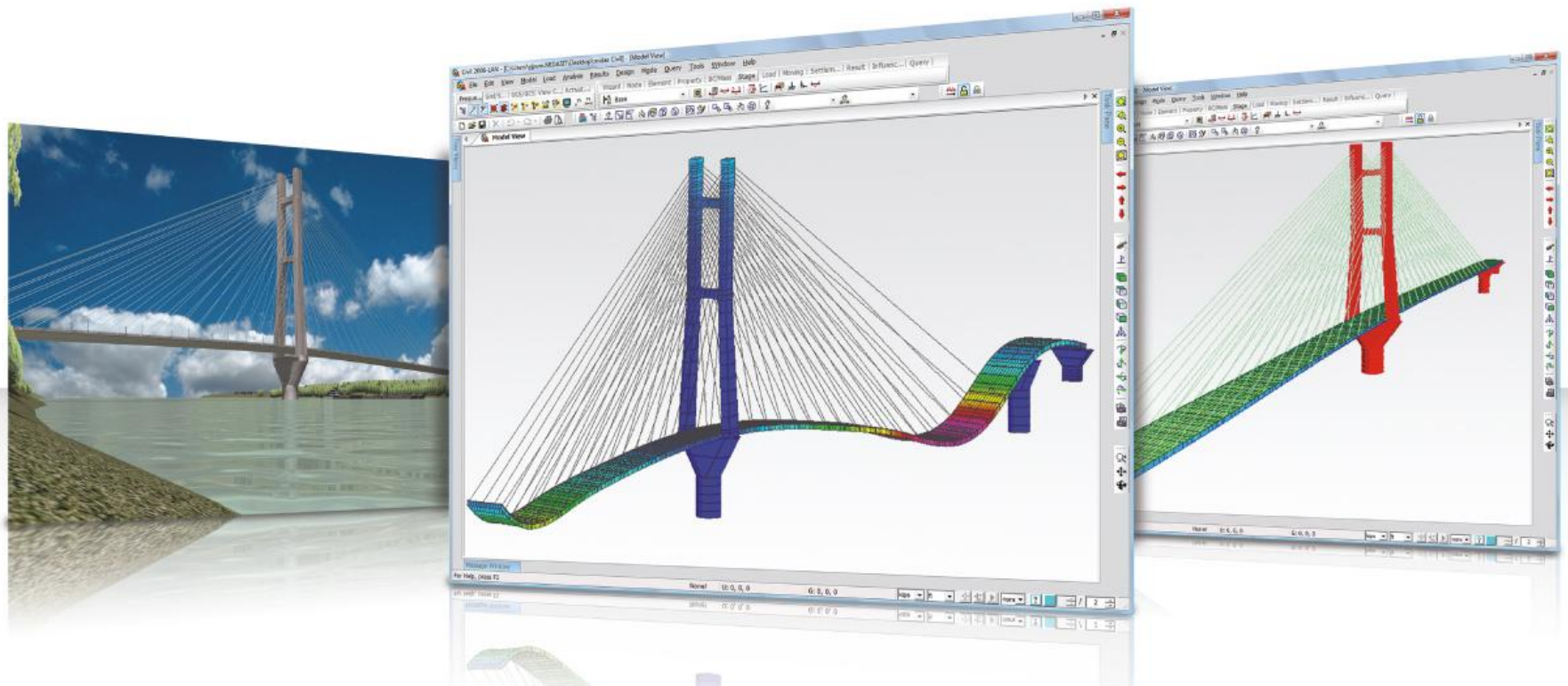
Incheon Bridge – World's third-longest cable stayed bridge (Total length : 1480m, Center span: 800m)

Ironton-Russell Bridge in USA

The Ironton-Russell Bridge is a single tower cable-stayed girder bridge. Girders are I-shaped steel plate girders. The girders are of a composite system with the concrete deck. The cable system is a dual-plane system consisting of 70 cables, and the tower is made up of reinforced concrete.

Overview

Overall bridge length	1,900 ft
Main span	950 ft
Tower height	519 ft
Location	Between Ironton, Lawrence County, Ohio, USA and Russell, Greenup County, Kentucky, USA
Function/usage	Roadway Bridge
Designer	Michael Baker, Jr., Inc.
Cost of construction	$110 Million
Elements	Truss: 70 / Beam: 2088 / Shell: 2730
Type of analysis	Construction Stage Analysis with Time-Dependent Effects Cable Tension Optimization / Eigenvalue Analysis Thermal Analysis / Vehicle Load Optimisation



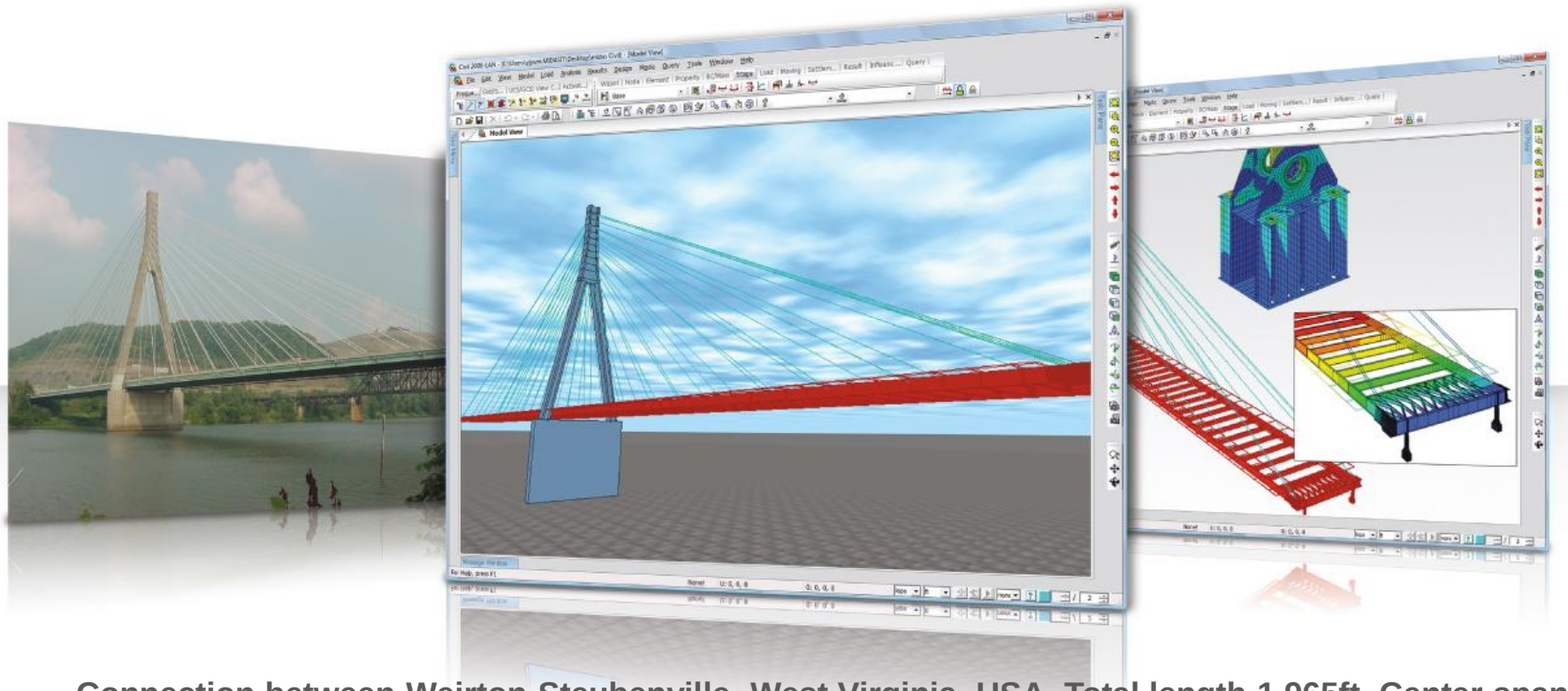
Connection between Ironton-Russell, Ohio, USA, Total length 1,900ft, Center span 950ft

Weirton-Steubenville Bridge in USA

The Weirton-Steubenville Bridge is an asymmetrical cable-stayed bridge with a single tower. The girders are I-shaped steel plate girders with a skewed web at 10°. The 52 cables create a dual-plane system.
The concrete deck is treated as a composite system. The tower is reinforced concrete with an inverted Y-shape.
In addition to the 3D analysis, a detail analysis for the anchor block has been performed.

Overview

Overall bridge length	1,965 ft
Main span	820 ft
Tower height	365 ft
Location	Crossing the Ohio River between Weirton, West Virginia, USA and Steubenville, Ohio, USA
Function/usage	Roadway Bridge
Contractor	S.J. Groves & Sons Co.
Designer	Michael Baker, Jr., Inc.
Consultant	T.Y. Lin International
Year of completion	1989 (opened in May, 1990)
Cost of construction	$30 Million
Elements	Truss: 52 / Beam: 484 / Shell: 13312
Type of analysis	Construction Stage Analysis / Cable Tension Optimisation Detail Analysis



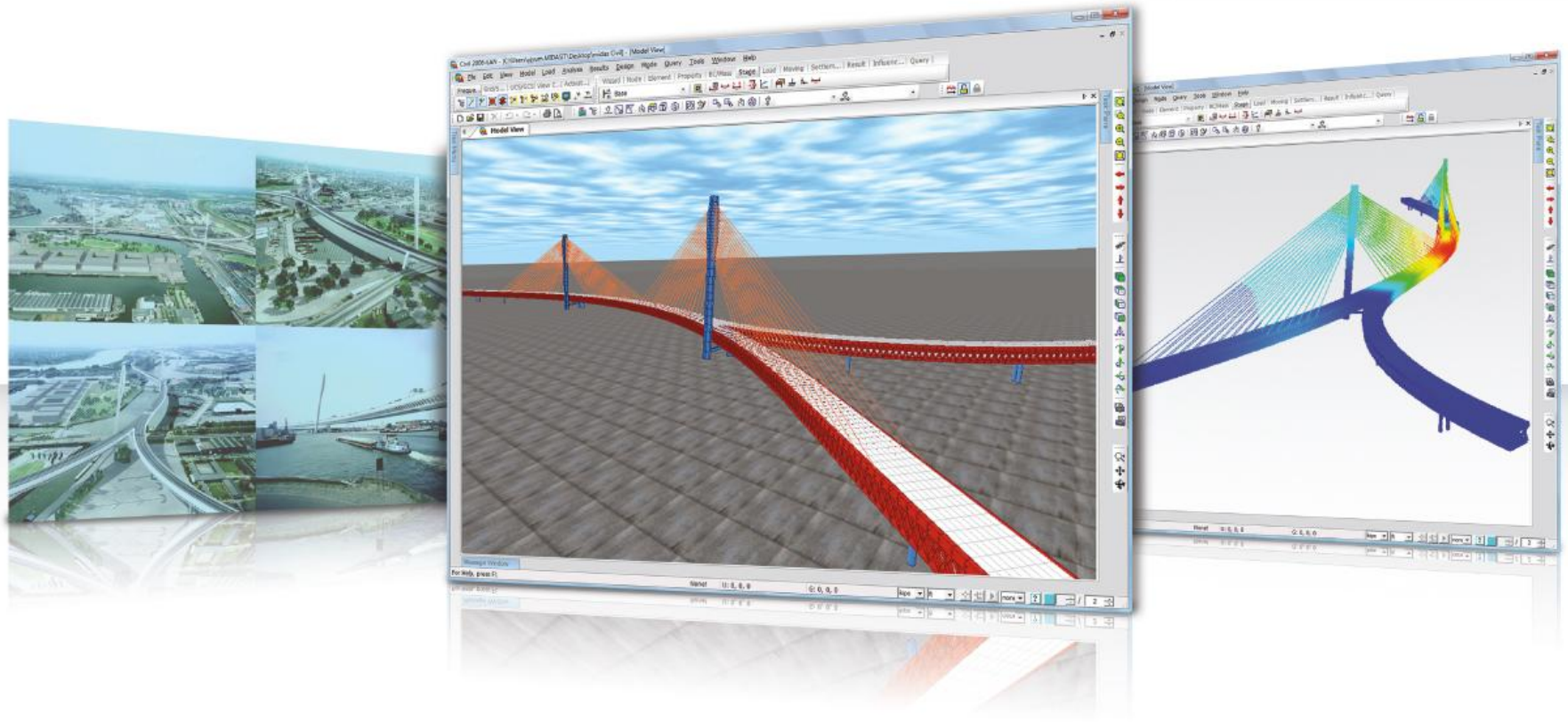
Connection between Weirton-Steubenville, West Virginia, USA, Total length 1,965ft, Center span 820ft

Lange Wapper Bridge in Belgium

The bridge has two asymmetrically inclined pylons and a unique horizontally curved double-deck. The use of an inclined pylon form and a high deck bending stiffness, which is different from the classic al cable-stayed bridge design, was questioned but it was concluded that it showed the same mechanical behavior as a classic cable-stayed bridge.

Overview

Overall bridge length	1,520 m
Main span	600 m
Tower height	150 m
Location	Antwerp, Flandres, Belgium
Function/usage	Roadway Bridge
Consultant	IC+E, TUDelft
Elements	Solid: 7930 (concrete deck) / Shell: 7733 (crossbeam's web) Beam: 20151 (crossbeam's flange, truss's top and bottom chord and diagonal) / Truss: 128
Type of analysis	Construction Stage Analysis / Cable Tension Optimisation Vehicle Load Optimisation
FE model by	N. Löfgren



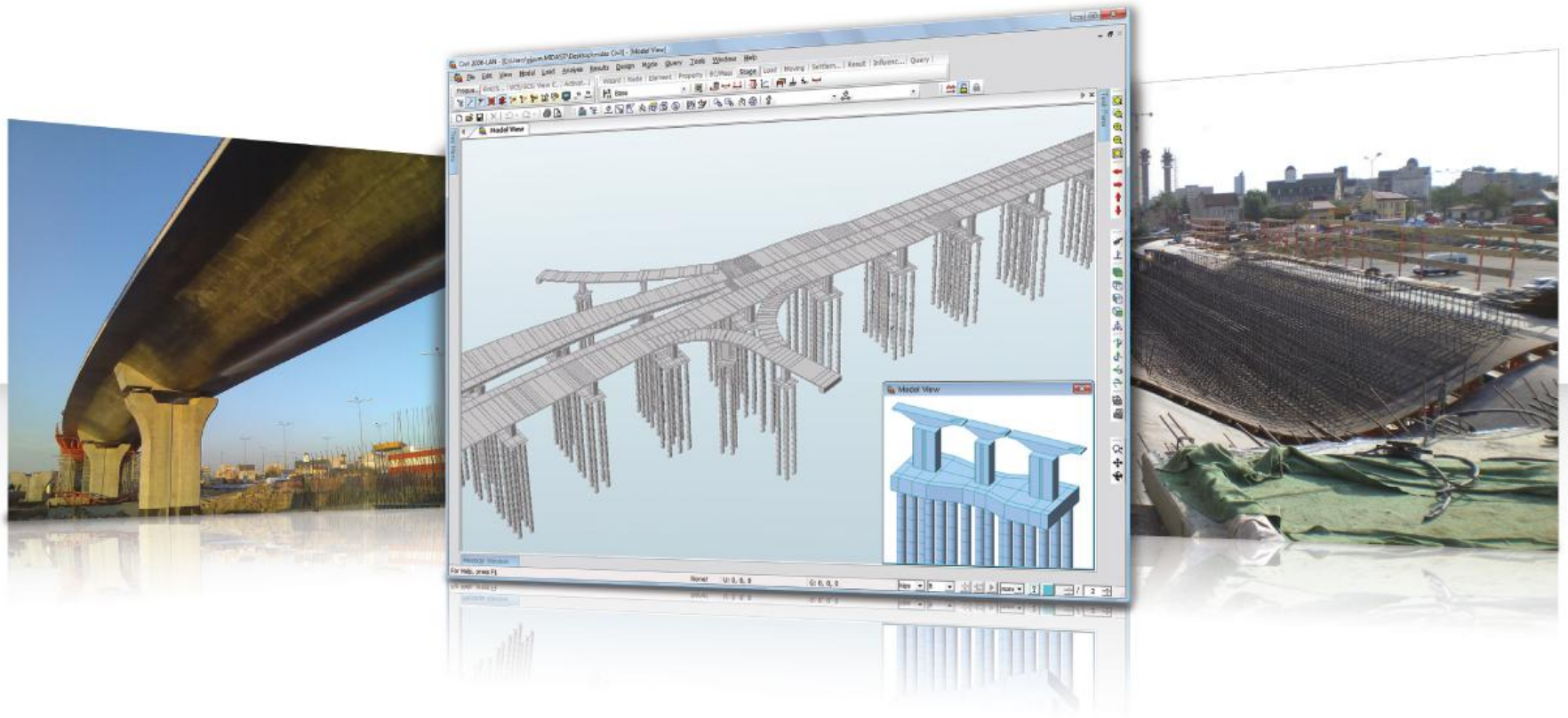
Lange Wapper in Belgium, Total length 1,520m, Center span 600m

Basarab viaduct in Romania

The Basarab Flyover Bypass connects the central rail station with the Grozavesti Bulevardul, across the Dambovita River in downtown Bucharest. The 1,479m long crossing consists of a 125m long arch bridge over the river, a complex 791m long road and tramway viaduct, and a 302m long, 40m wide cable-stayed bridge over the railway. The new link is completed by three side ramps connecting the flyover with secondary roads at ground level.

Overview

Overall bridge length	1478.5 m
Main span	125 m
Location	Bucharest , Romania
Function/usage	Complex Road and Tramway Bridge
Consultant	C&T engineering Srl
Type of analysis	Non-linear dynamic time history analysis with Lead Rubber Bearings Isolators (LRB) and Viscous Dampers



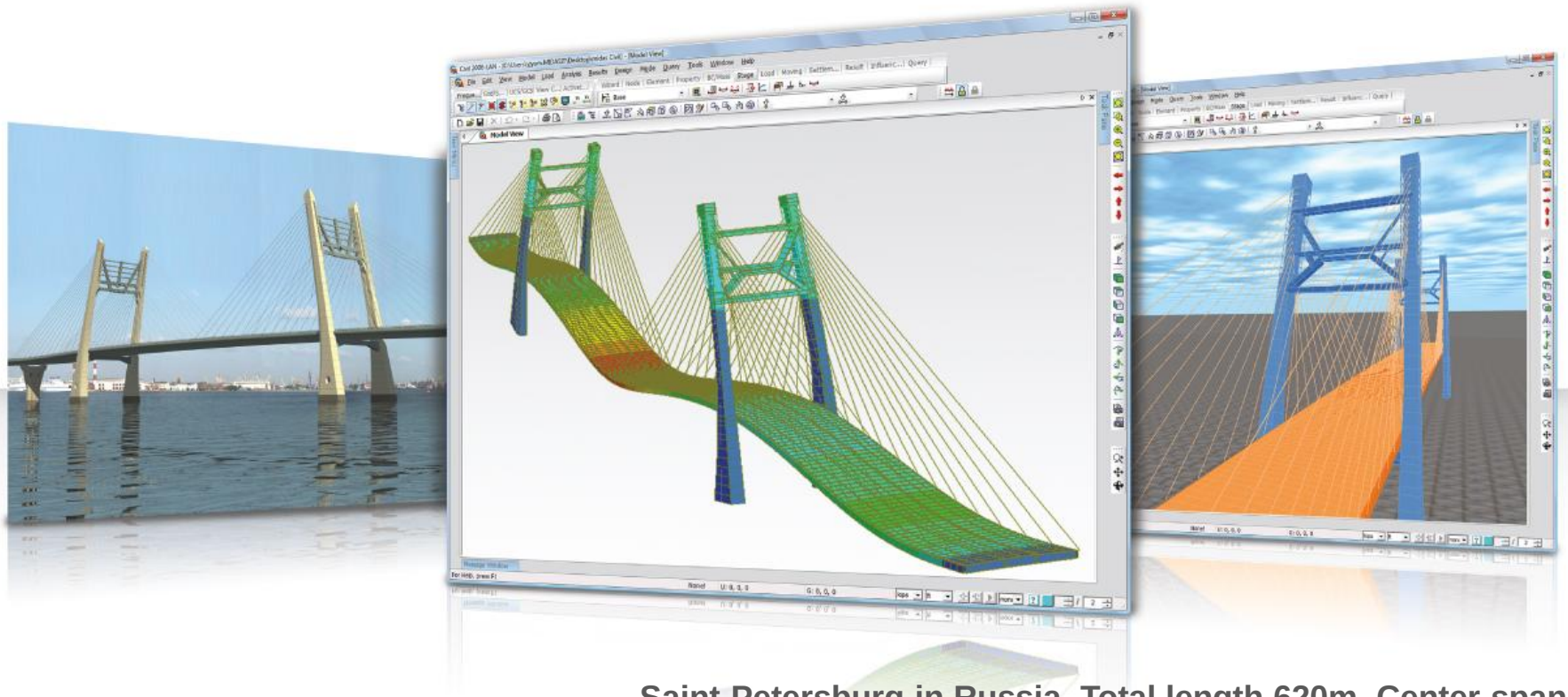
Basarab viaduct in Romania, Total length 1,478m, Center span 125m

Korabelny Farvater Bridge in Russia

The Korabelny Farvater Bridge has a dual-plane cable system of 54 cables. The concrete deck is a composite system.
The tower is reinforced concrete.

Overview

Overall bridge length	620 m
Main span	310 m
Tower height	128 m
Location	Saint-Petersburg, Russia
Function/usage	Roadway Bridge
Designer	"Institute "Stroiproject"
Consultant	Freyssinet International
Year of completion	Under design
Cost of construction	6 020 000 000 rubles
Elements	Truss: 104 / Beam: 4063 / Shell: 2288
Type of analysis	Static Analysis / Vehicle Load Optimisation Eigenvalue Analysis



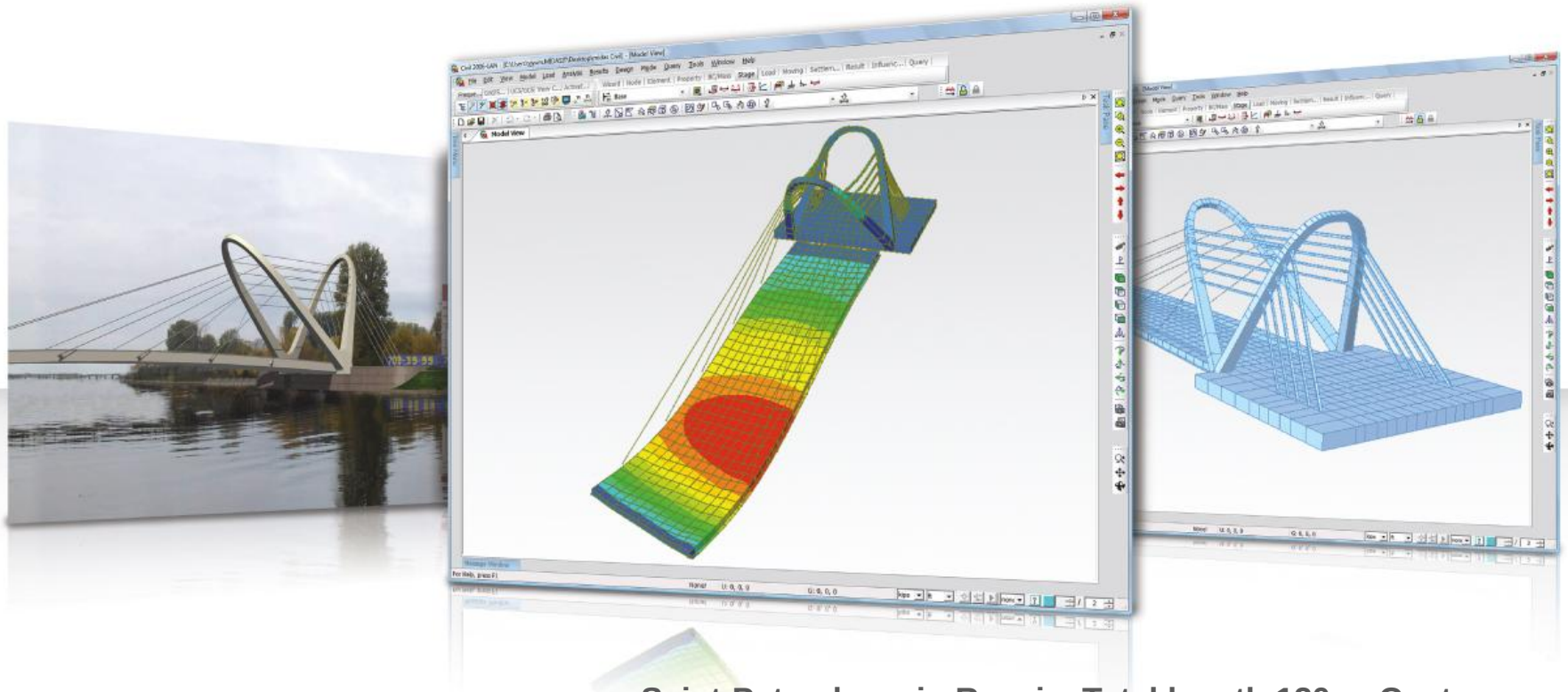
Saint-Petersburg in Russia, Total length 620m, Center span 310m

Lazarevsky Bridge in Russia

The Lazarevsky Bridge has five pairs of cable-stays and ten pairs of rigid anchor trusses.

Overview

Overall bridge length	120 m
Main span	120 m
Tower height	26 m
Location	Saint-Petersburg, Russia
Function/usage	Roadway Bridge
Contractor	Mostostroj 6
Designer	"Institute "Strojproject"
Year of completion	2009
Cost of construction	838 000 000 rubles
Elements	Truss: 10 / Beam: 903 / Shell: 637
Type of analysis	Static Analysis / Vehicle Load Optimisation Eigenvalue Analysis / Construction Stage Analysis



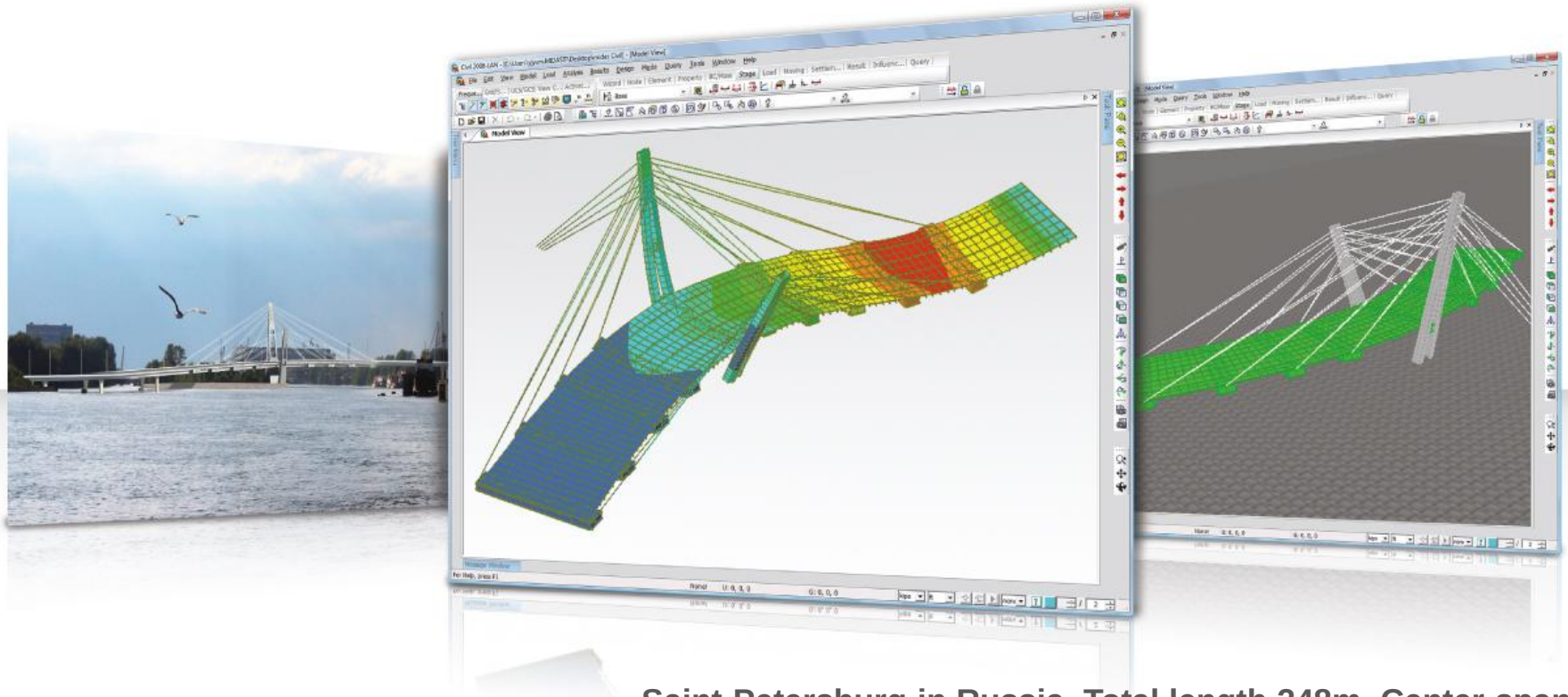
Saint-Petersburg in Russia, Total length 120m, Center span 120m

Sernyi Bridge in Russia

The Sernyi Bridge is designed to be much curved in plan.
16pairs of cable-stays are supporting the deck, and 8 cable-stays connect the steel towers.

Overview

Overall bridge length	248 m
Main span	144 m
Tower height	66 m and 48 m
Location	Saint-Petersburg, Russia
Function/usage	Roadway Bridge
Designer	"Institute "Strojproject"
Year of completion	Under design
Cost of construction	1 472 000 000 rubles
Elements	Truss: 40 / Beam: 1633 / Shell: 926
Type of analysis	Static Analysis / Vehicle Load Optimisation



Saint-Petersburg in Russia, Total length 248m, Center span 144m

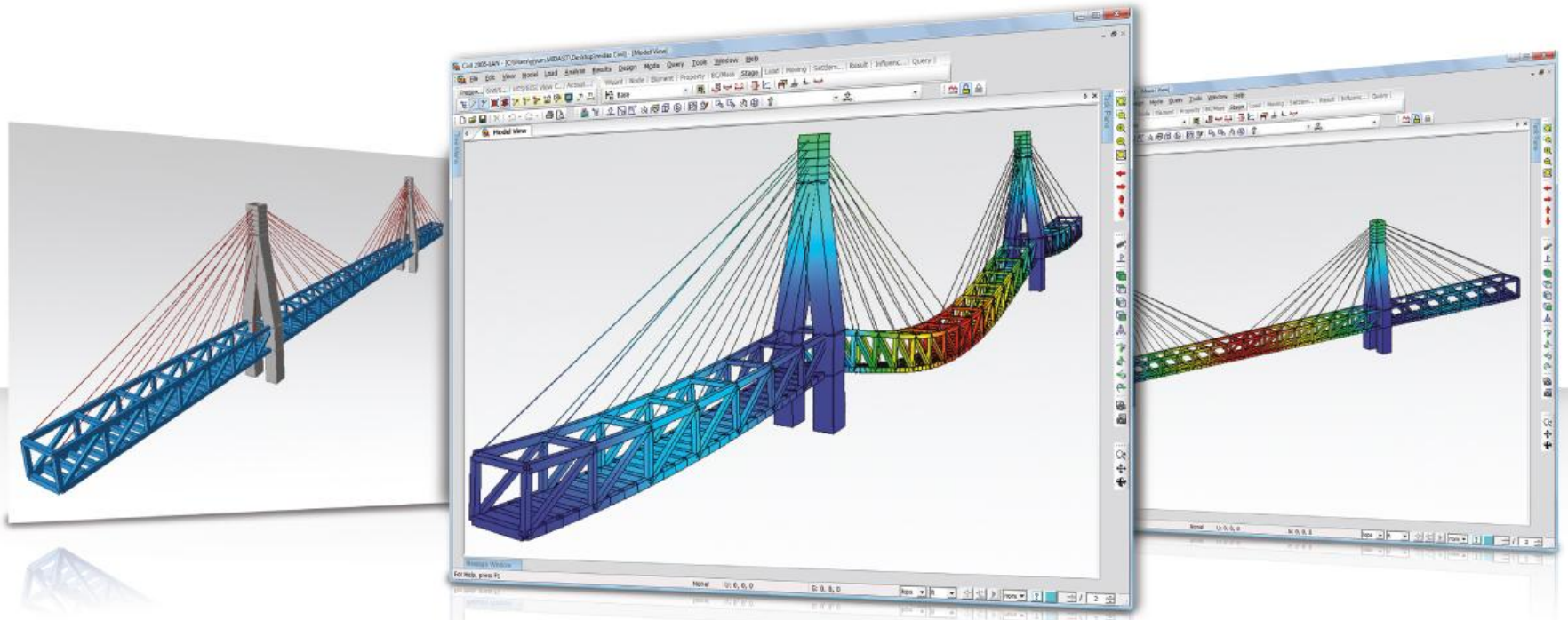
Train-Structure Interaction

TUDelft/Movares Research Project

The bridge is a symmetrical cable-stayed bridge with three spans. The tower is composed of a concrete rectangular hollow section. The main girder is truss-girder composed of steel girders, crossbeams and trusses. The center-to-center distance of stay cables is 13.33m at deck and 2m at tower. The dynamic effect of a train crossing the bridge at high speeds has been investigated.

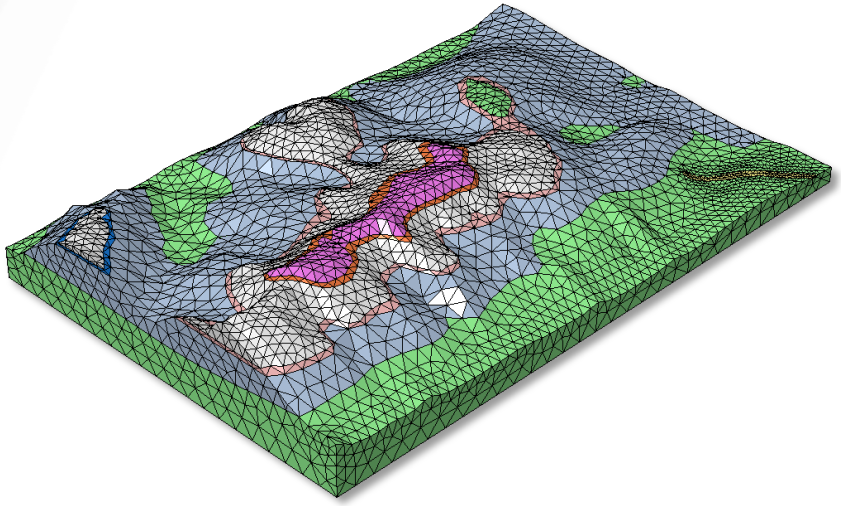
Overview

Overall bridge length	400 m
Main span	200 m
Tower height	75 m (60 m above the deck)
Function/usage	Railway Bridge
Consultant	Movares Nederland BV & TUDelft
Elements	Truss: 56 / Beam: 582 (Deck and Tower)
Type of analysis	Static Analysis / Vehicle Load Optimisation Time History Analysis
FE model by	A. Steenbrink



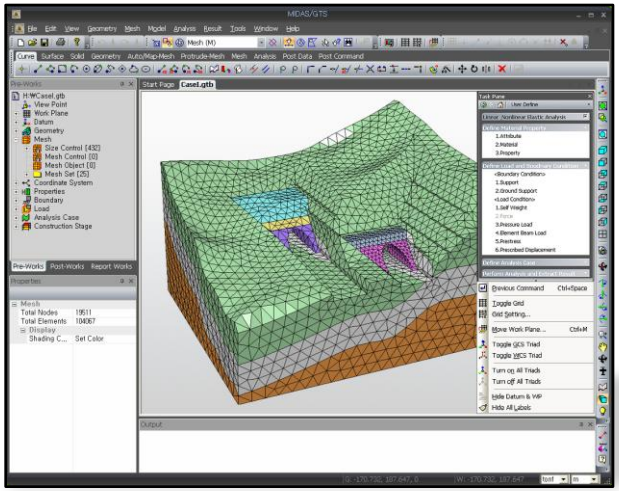
Dynamic analysis for Train-Structure Interaction

05 Geotechnical Engineering

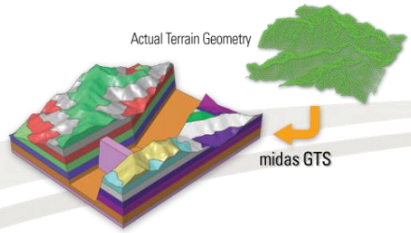


midas GTS

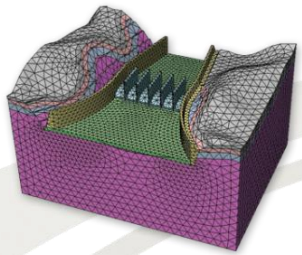
Geotechnical and Tunnel analysis System



- Released in 2005
- Distributed worldwide
- No 1 market share in true 3-D analysis



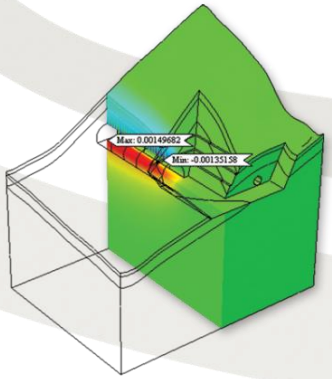
[TGM (Terrain Geometry Maker)]



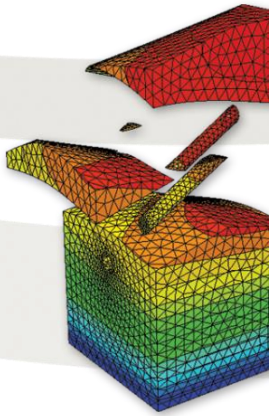
[Automesh Generation]

midas GTS

[Virtual Transformation]



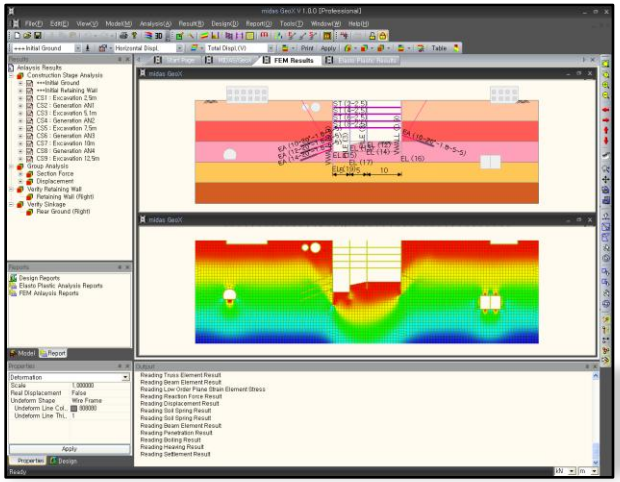
[Probe Result]



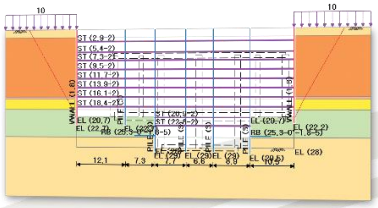
[Partitioned Plot]

midas GeoX

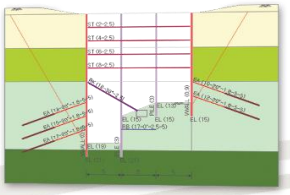
Temporary shoring & Settlement analysis System for Excavation



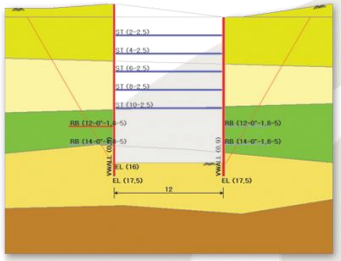
- Released in 2007
- To be released in Japan & Taiwan



[Cpmplex Cross Section]

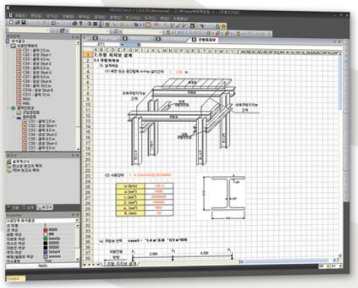


[Stepped Excavation]



[Sloped Strata]

midas GeoX



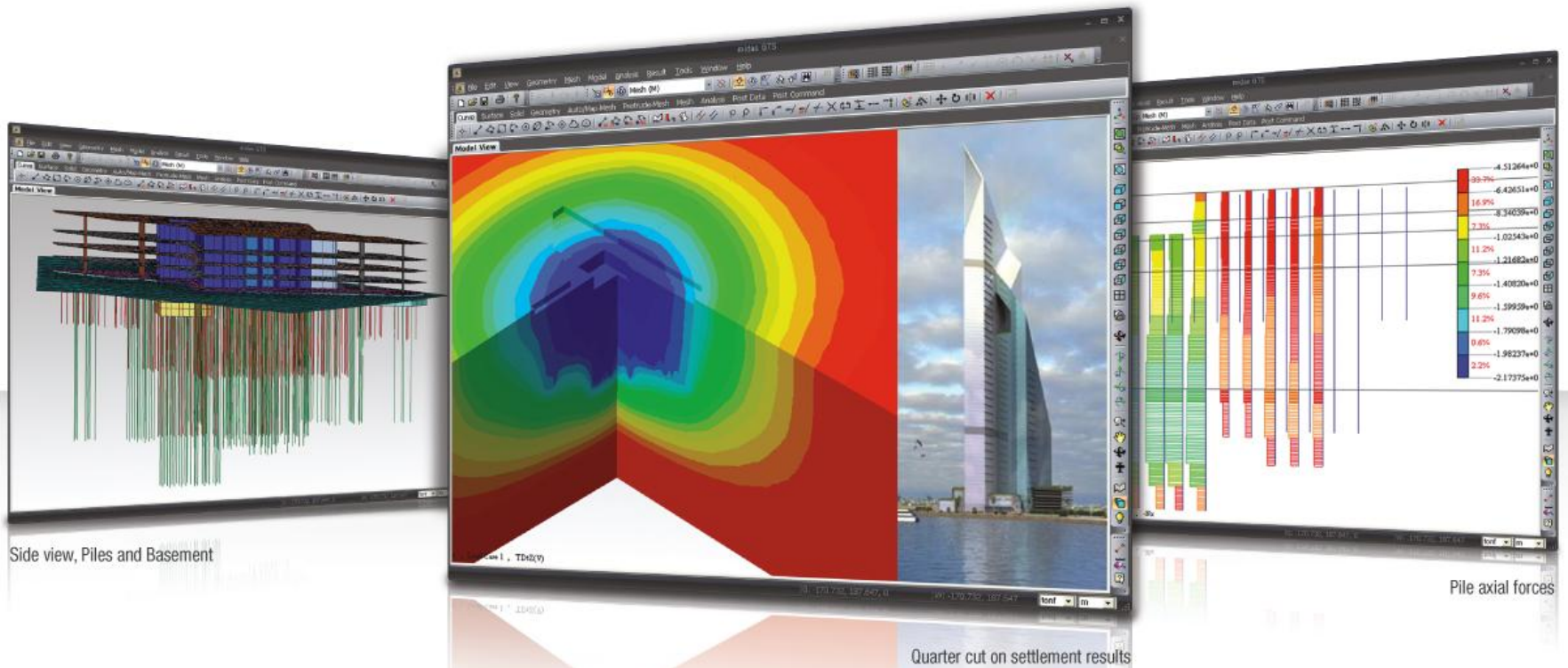
[Design Report]

[3D Model View]

Dubai Tower in Qatar

Overview	
Engineer	Hyder Consulting Ltd, UK
Location	Doha, Qatar
Project	Piled-raft foundation design
Scope	Analysis results for design - Settlements - Raft forces and bending moments - Pile forces and bending moments

The proposed development for the Dubai Tower project comprises the construction of an approximately floors high rise tower with mezzanine, ground floor and five basement levels and will be the tallest structure in Qatar when it is complete. The tower is founded on a piled raft. In order to fully understand the behaviour of the foundation, a 3D finite element model analysis was undertaken.

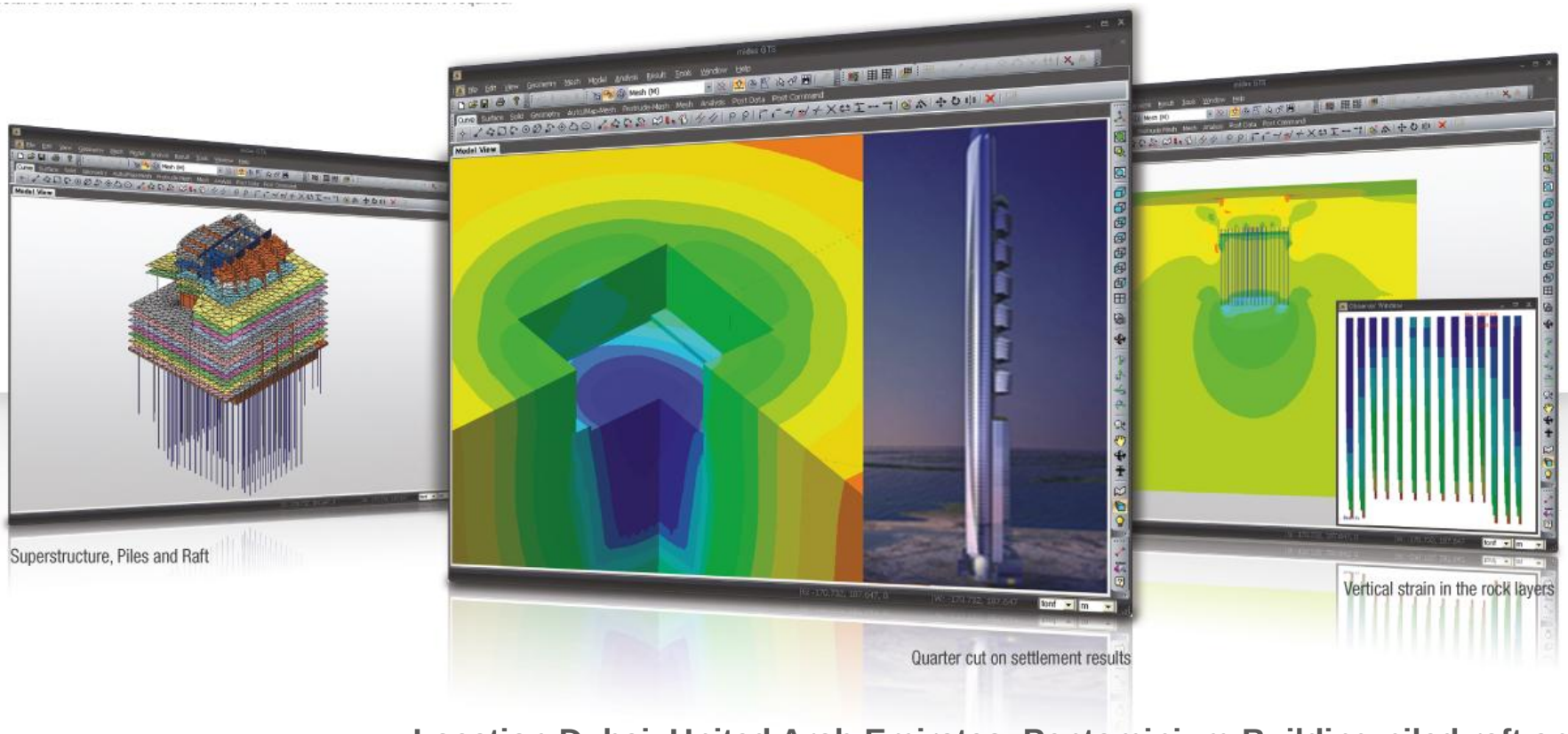


Located in Doha, Qatar, Dubai Tower piled raft analysis

Pentominium Residential Develpment in UAE

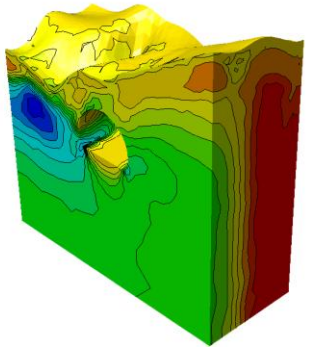
Overview	
Engineer	Hyder Consulting Ltd, UK
Location	Dubai, UAE
Project	Piled-raft foundation FE modelling
Scope	FE Analysis results for design - Settlements - Raft forces and bending moments - Pile forces and bending moments

The Pentominium Residential Development is located on the west side of the creek in Dubai. The development comprises the construction of an approximately 120 storey highrise tower interlinked by low level podium structure housing up to 7 basement levels. The Pentominium Tower will be founded on a piled raft and to fully understand the behaviour of the foundation, a 3D finite element model is required.

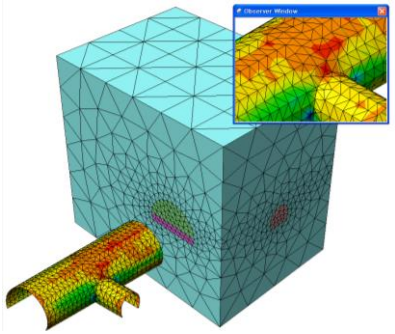


Location Dubai, United Arab Emirates, Pentominium Building piled raft analysis

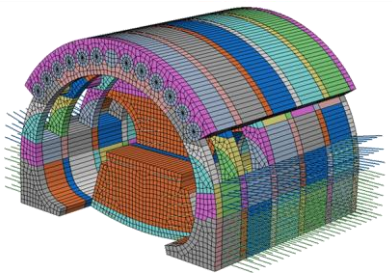
Tunnel



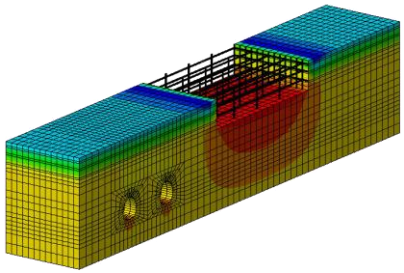
[Tunnel in Valley]



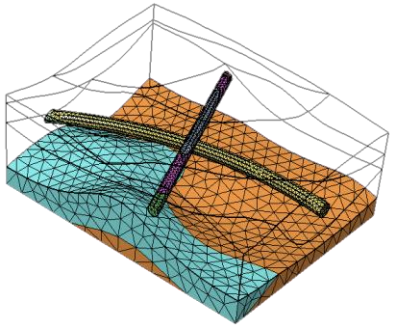
[Tunnel T-Connection]



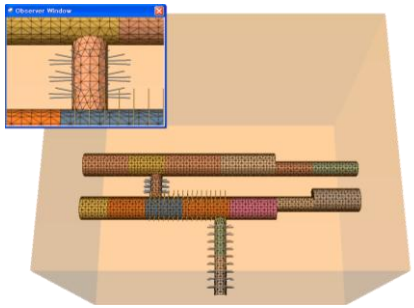
[CAM Tunnel]



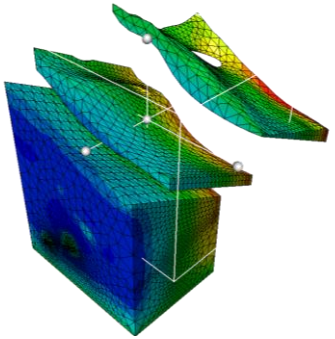
[Subway Construction]



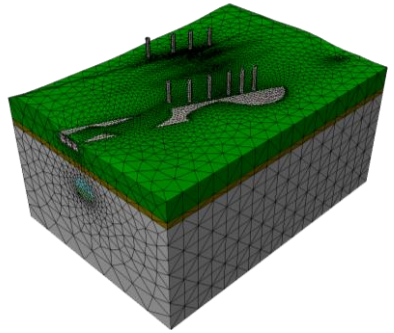
[Tunnel with Strata]



[Construction of Tunnel]

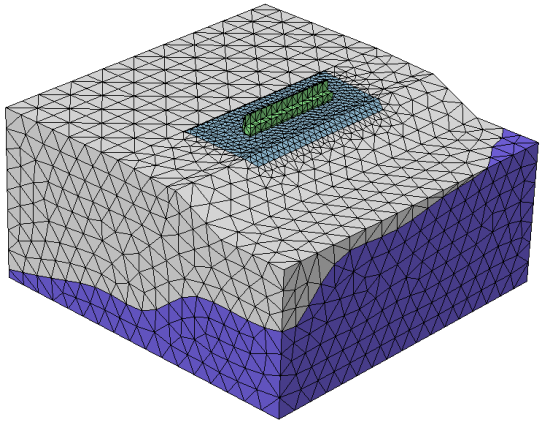


[Tunnel Intersection]

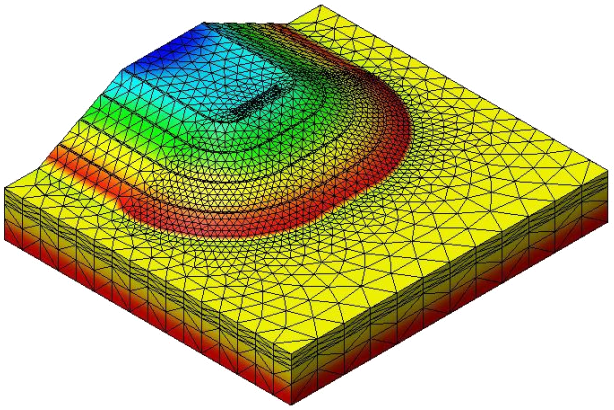


[Settlement Assessment]

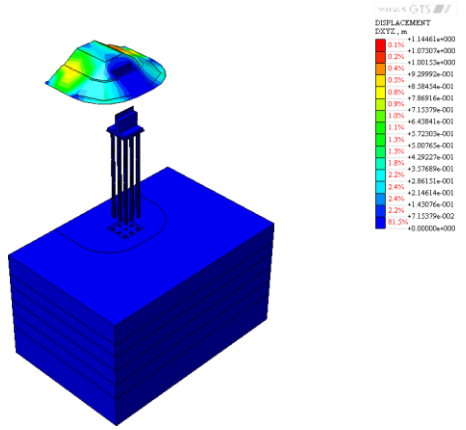
Abutment & Pier



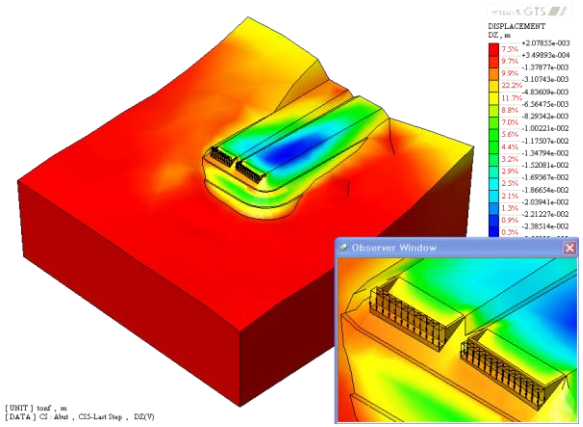
[Foundation of an Abutment]



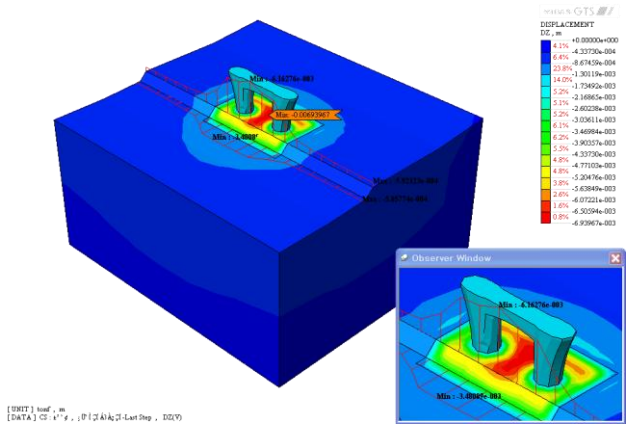
[Safety Check upon Embankment]



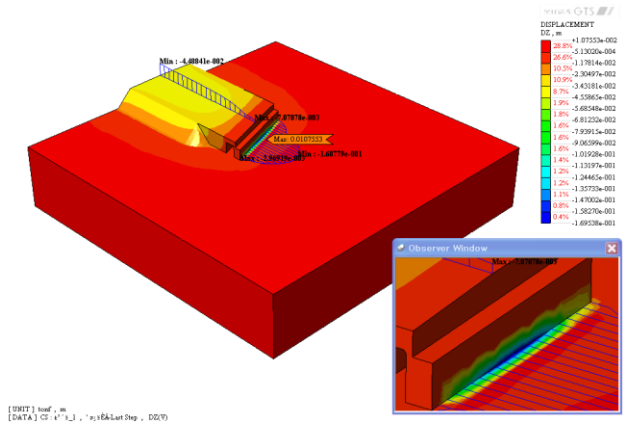
[Pile Foundation of Abutment]



[Abutment and Embankment]

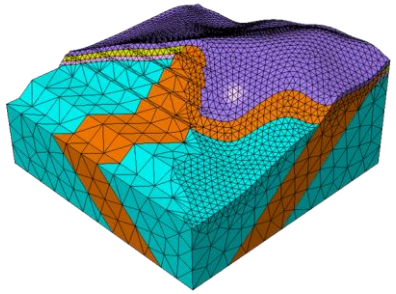


[Pier Assessment]

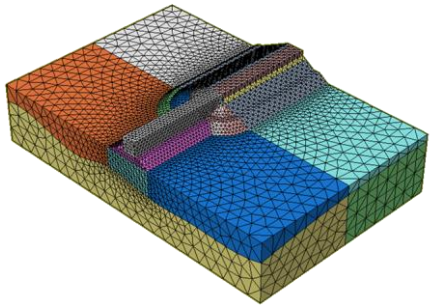


[Abutment Analysis]

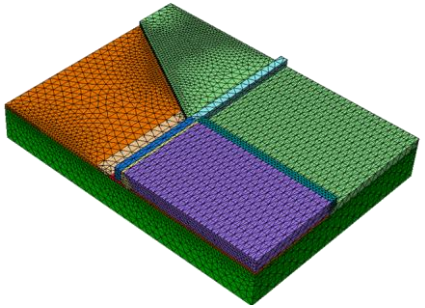
Other Structures



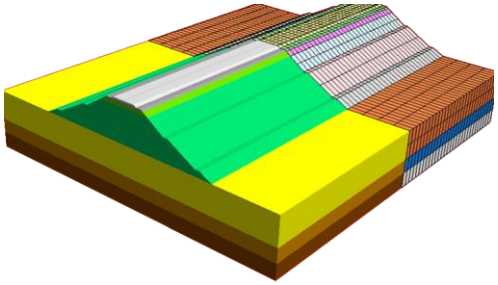
[Slope with Fault Zone]



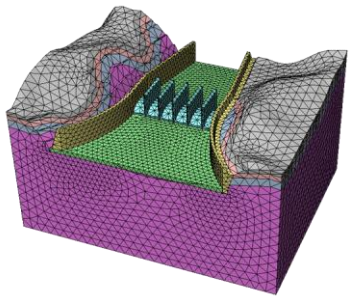
[Breakwater]



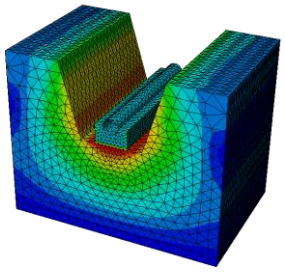
[Quaywall]



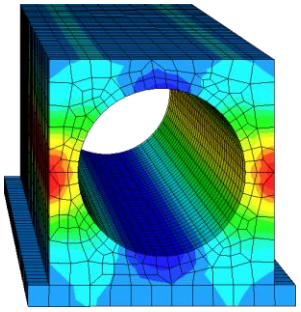
[Railroad]



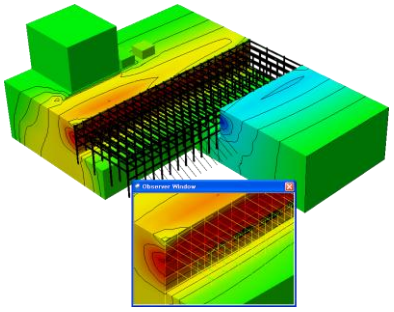
[Overflow Wier]



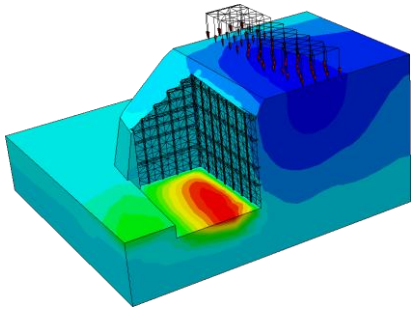
[Sewer]



[Pipe]



[Temporary Structure]



[Temporary Railway Bridge]

06 Propagation of Technology

06. MIDAS IT - International Seminars

Propagation of technology

Introducing MIDAS Family programs worldwide - Product promotion through technical conferences, road shows, training and seminars.

“Approximately 5,000 people attend MIDAS organized technology seminars yearly”

06. MIDAS IT - Korean Activities

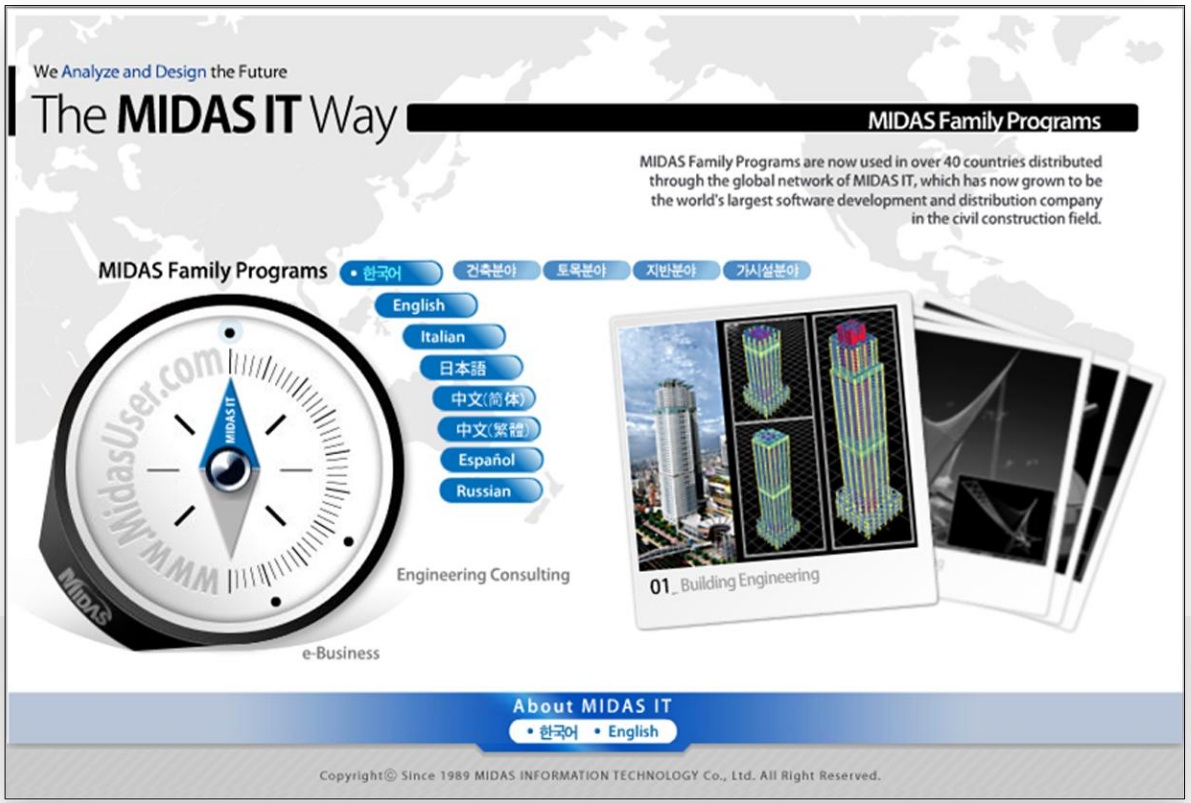
Propagation of technology

Educational Seminars: 10 per month , Attendance ~ 2,500 people
Technical Seminars: 6 per year, Attendance ~3,000 people
Engineering Courses: 30 per year, Attendance ~4,500 people

"Yearly approx 10,000 attend the MIDAS organized technical seminars"

07 Technical Support

07. Technical services – MIDAS Family Program Web-site



- **Product information/training/technical support**
- **Company web site in Korean, English, Japanese & Chinese**
- **Local language web sites in Italian, Spanish, Russian & Chinese (Taiwan)**

07. Technical services – Mechanical engineering

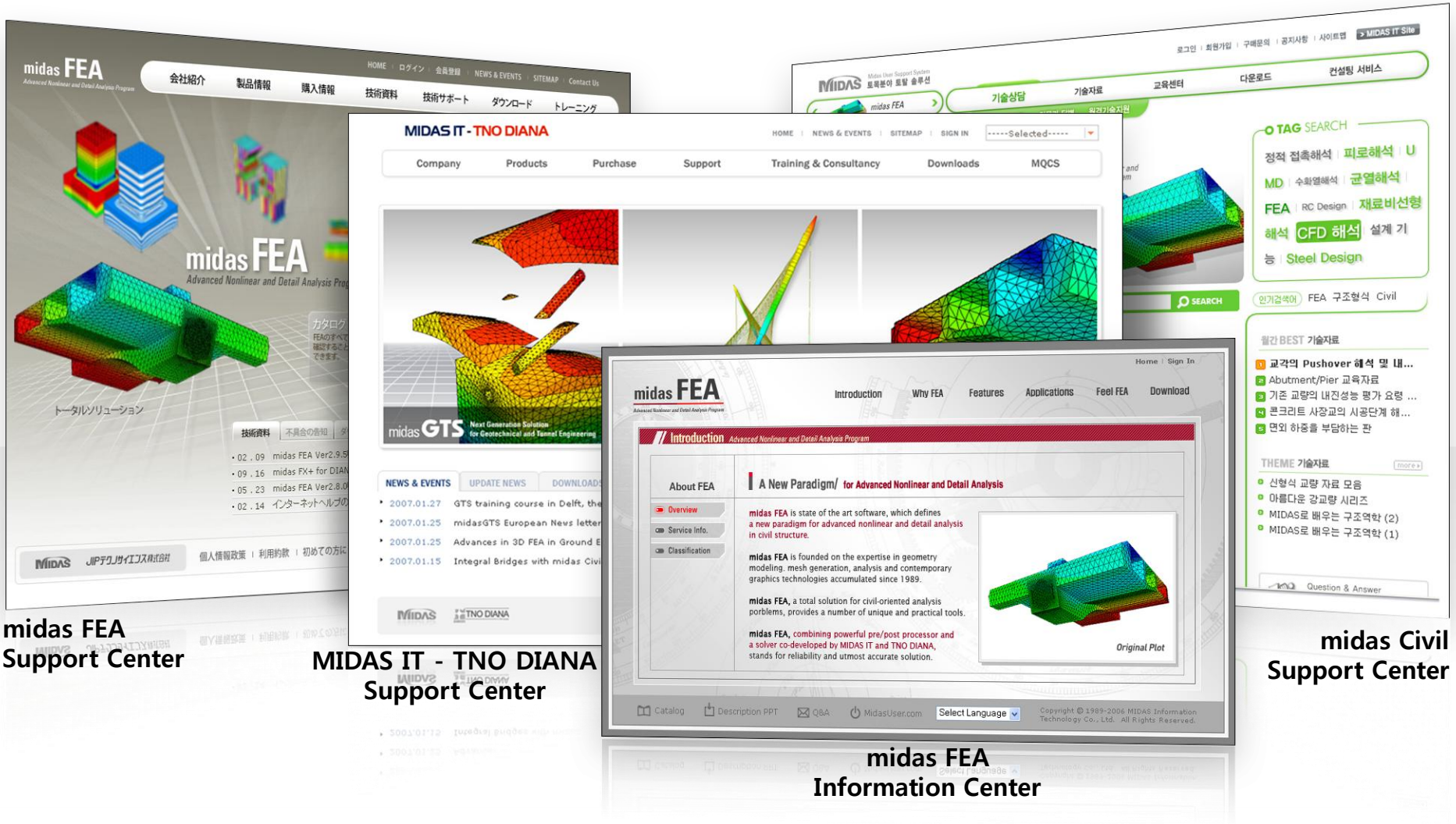
midas NFX
Training Center (Japan & Korea)

Information Center

midas NFX
Support Center

07. Technical services – Web site and service for building engineering

07. Technical services – Web site and service for Bridge engineering



midas FEA
Support Center

MIDAS IT - TNO DIANA
Support Center

midas FEA
Information Center

midas Civil
Support Center

07. Technical services – Web site and service for geotechnical engineering

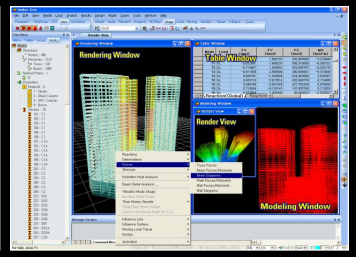
midas GTS
Support Center

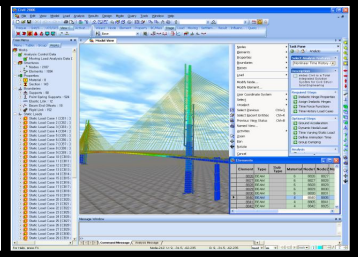
midas GeoX
Support Center

midas GTS
Information Center

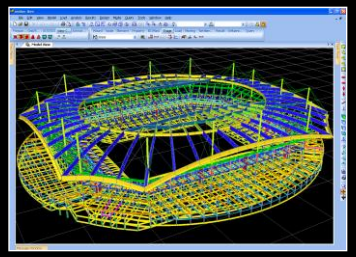
midas GeoX
Information Center

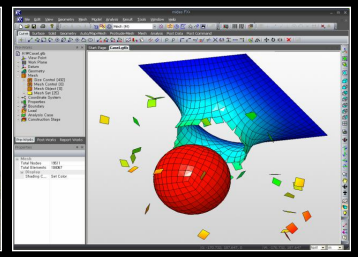


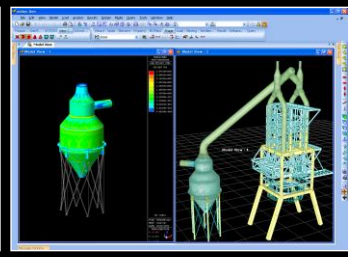
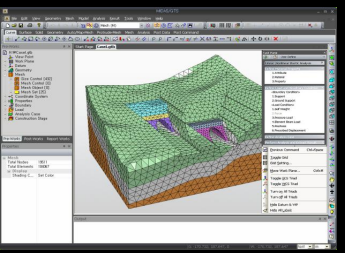


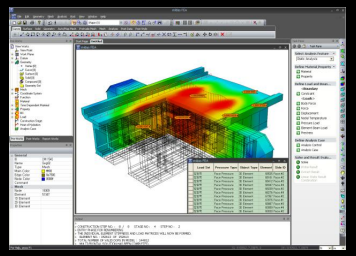


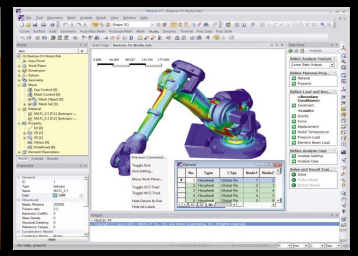









We Analyze and Design the Future

2009 MIDAS IT Company Profile

2009 .05 .01

MIDAS IT Corporation Headquarters

- SKⓝ Technopark Tech-center 15th Fl.,
  190-1 Sangdaewon1-dong,
  Joongwon-gu, Seongnam,
  Gyeonggi-do, 462-721, Korea

- e-mail : webmaster@midasit.com
- Phone : 031-789-2000
- Fax : 031-789-2001

www.midasit.com