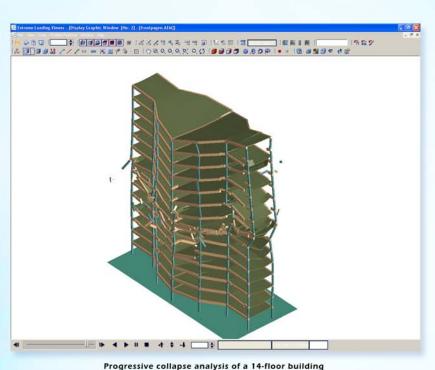
# Vulnerability Assessment & Risk Mitigation



#### ASI Leverages Vulnerability Assessment with Advanced Structural Analysis and Simulation.

ASI redefines traditional vulnerability assessment practices by merging proprietary advanced structural analysis technologies with risk assessments, and developing a decision matrix to make the appropriate structural, architectural, standoff and building perimeter choices. You will see first-hand how a structure's behavior impacts your risk mitigation options through realistic analysis-based 3D simulations, helping you develop risk management and security plans within your budget.

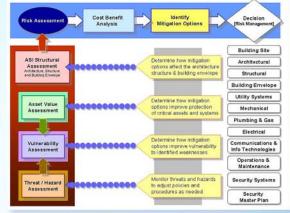






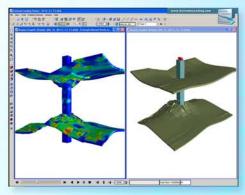
### **ASI Simulations and Technologies:**

- Bring virtual reality to engineering presentations
- Assess and analyze multiple threat scenarios
- Find vulnerabilities in architecture, structure, external glazing and building envelope
- Test planned or existing structural details
- Communicate performance-based design solutions for risk mitigation options to stakeholders

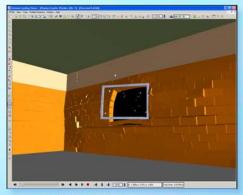


NEW Vulnerability Assessment & Risk
Mitigation Process

# Protection Through Prediction



Blast analysis of a supporting column



Blast analysis of a masonry wall

# Vulnerability Assessment & Risk Mitigation



#### **ASI** Headquarters

3221 Wellington Ct. Raleigh, NC 27615

Tel: (919) 645-4090 Fax: (919) 645-4085

support@extremeloading.com

Applied Science International, LLC (ASI), a subsidiary of The Steel Network, Inc., leads the world with advanced structural analysis technology. Extreme Loading® technologies provide revolutionary insight into the behavior of structures. ASI provides consulting engineering and structural analysis, vulnerability assessment and risk mitigation services to government agencies, building owners and companies who are responsible for structures.

Advanced Structural Analysis
Software

Vulnerability Assessment and Risk Mitigation

Blast Analysis

Glass Analysis under Extreme Loads

Progressive Collapse Analysis

**Demolition Simulation** 

Earthquake Engineering and Analysis

Structural Evaluation for Insurance Underwriting

Forensic Engineering and Expert Witness

Historical Site Analysis



www.appliedscienceint.com www.extremeloading.com ASI's unique technology takes the long anticipated leap into virtual reality with engineering simulations that represent with unprecedented accuracy – a clearer picture of what really happens when the structure is compromised by man-made acts of terrorism or natural disaster.

# Protect your structure with expert structural analysis and review.

ASI has the experienced team of engineers, the advanced structural analysis technology, and the tools necessary to identify vulnerabilities and recommend upgrades to secure your structure.

# (a) Pa-XI (b) Pa-XI (c) Pa

Blast standoff distances

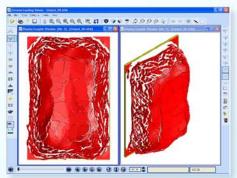
# Get the information you need to make life-saving decisions.

Understanding how a structure behaves

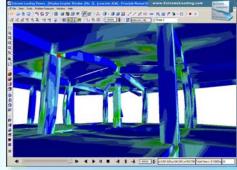
under extreme loading events is paramount to making safe and economically sound security decisions.

#### Visually communicate complex blast and structural analysis.

Seeing the consequences of terrorist attacks or natural disasters on a structure stimulate a sense of urgency to set the strategies and make the decisions responsible for saving lives and investments.



Blast analysis of a glass window



Contour diagram of stresses induced by blast

#### Contact ASI today to learn how we can:

- Analyze and test your structure against extreme loading events
- Visualize plans and consequences with analysis-based 3D simulations
- Determine standoff distances, safety perimeters and potential collateral damage
- Protect from progressive collapse with advanced structural analysis
- Determine the vulnerability of external glazing and windows against extreme loads

Protect lives, property, and investment Plan for a safer tomorrow, today