

# ARCHITECTURE, ENGINEERING & CONSTRUCTION STRUCTURE DESIGN FOR FABRICATION

Connect your structure design from concept through fabrication



## IMPROVING THE STRENGTH UNDERLYING EVERY INNOVATION

Structural engineers are being tasked with producing structures that are better designed, safer, and more efficient to prefabricate and erect.

They must juggle these requirements and find the optimum solution by conducting multiple project studies in an increasingly compressed timeline.

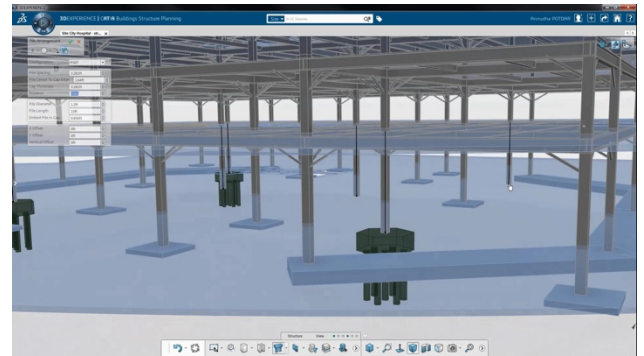
Owners and designers are demanding more complex structure. Now structural engineers must constantly innovate to deliver structures that are more lightweight, incorporate untried materials, use modern design solutions, among other challenges.

Fragmented solutions for managing multiple models limit structural engineers' abilities to produce engineered solutions using an advanced delivery method at the right cost.

## AN END-TO-END SOLUTION FOR STRUCTURE DESIGNERS, ENGINEERS, AND FABRICATORS

The *Structure Design for Fabrication* Industry Process Experience, built on the cloud-based collaborative **3DEXPERIENCE**® platform efficiently and consistently covers project requirements end-to-end: from planning and design to fabrication and execution. Model, simulate, and analyze any structural element from a wide range of projects such as: concrete and steel frames, precast, façades, bridges, tunnels, etc.

Use integrative, parametric, associative, and computational modeling methods to increase productivity and optimize project value through iterative design.



*Building structure.*

**Structure Design for Fabrication** promotes a highly collaborative approach linking appropriate technologies. Combine talent, technique, and technology to deliver high performance, value, and efficiency while reducing waste and embodied energy.

## KEY BENEFITS OF STRUCTURE DESIGN FOR FABRICATION

### Deliver higher performing buildings and civil infrastructure

Save time, limit dead ends, and lower lifecycle operating costs.

### Project and construction control

Achieve total project control. Reduce waste and rework by extending models into manufacturing and assembly.

### Single 3D version of the truth

"Same page" authoring tools scale to huge amounts of data, enabling coordination across all stakeholders.

## The power of 3DEXPERIENCE

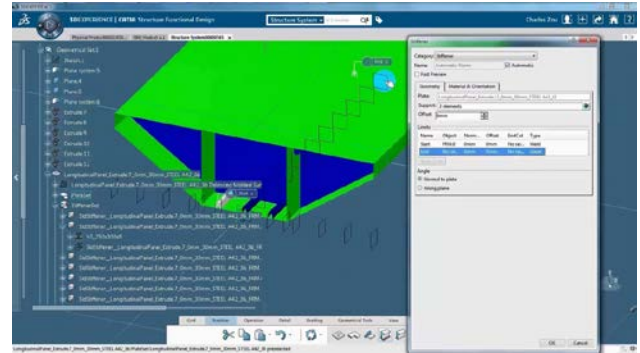
A multi-BIM approach to project development using a truly collaborative, data-centric environment. Enable simultaneous, real-time access to project data and design models across multi-disciplinary stakeholders. Integrate multiple CAD and BIM formats and data sources with the Dassault Systèmes AEC Data Model.

## IN SUMMARY

Through integrative design, engineer structures that better meet owner and designer demands for innovation, safety, and efficiency on a compressed timeline.

Use lessons learned from other industries—including automotive, aerospace, and manufacturing—on how collaborative, integrative design can boost efficiency across the project lifecycle.

Gain significant competitive advantages from concept through fabrication with **Structure Design for Fabrication**.



*Bridge structure.*

## Our 3DEXPERIENCE platform powers our brand applications, serving 12 industries, and provides a rich portfolio of industry solution experiences.

Dassault Systèmes, the 3DEXPERIENCE® Company, provides business and people with virtual universes to imagine sustainable innovations. Its world-leading solutions transform the way products are designed, produced, and supported. Dassault Systèmes' collaborative solutions foster social innovation, expanding possibilities for the virtual world to improve the real world. The group brings value to over 210,000 customers of all sizes in all industries in more than 140 countries. For more information, visit [www.3ds.com](http://www.3ds.com).



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