

ARCHITECTURE, ENGINEERING & CONSTRUCTION CIVIL DESIGN FOR FABRICATION

Connect your civil design from concept through fabrication



TRANSFORMING THE EARTH BY CONNECTING PEOPLE

Authorities have high expectations for timely, costeffective infrastructure projects. When civil designers and engineers use different applications to address conceptual and detailed design phases, redundant rework—and resulting delays—are common.

When designers and engineers work in technologyenforced siloes, each loses out on expert knowledge that can inform project improvements.

A lack of integration and interoperability between applications leads to errors and frequent requests for information. Productivity can be improved by capitalizing on specialized knowledge in the conceptual design stage and integrating expert knowhow in a single source.

When deliverables are not linked to the master design, engineering changes result in change orders, delays, and cost overruns.

AN END-TO-END SOLUTION FOR THE CIVIL INFRASTRUCTURE PROJECT

The **Civil 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.

Collate, model, and simulate point clouds, terrain, earthworks, hydrology, geology, alignments, and other models. Civil IFC data types cater to large projects, such as roads, rail, tunnels, or bridges.

Use integrative, parametric, associative, and computational modeling methods to increase productivity and optimize project value through iterative design, leveraging by customizable and repeatable template.

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



Changes in terrain preparation automatically translate to excavation preparation.

KEY BENEFITS OF CIVIL DESIGN FOR FABRICATION

The capability to design anything

Comprehensive modeling capabilities, normal and large-scale range model mapping on Geo Location and the scalability of the cloud.

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 the 3DEXPERIENCE platform

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.



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IN SUMMARY

Through process integration and collaboration across the design phases, and throughout the supply chain, redundant rework and delays can become a thing of the past.

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 advantage and achieve end-to-end collaboration from concept through fabrication with **Civil Design for Fabrication**.

Our **3D**EXPERIENCE 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**.





Americas Dassault Systèmes 175 Wyman Street Waltham, Massachusetts 02451-1223 USA Europe/Middle East/Africa Dassault Systèmes 10, rue Marcel Dassault CS 40501 78946 Vélizy-Villacoublay Cedex France Asia-Pacific Dassault Systèmes K.K. ThinkPark Tower 2-1-1 Osaki, Shinagawa-ku, Tokyo 141-6020 Japan

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