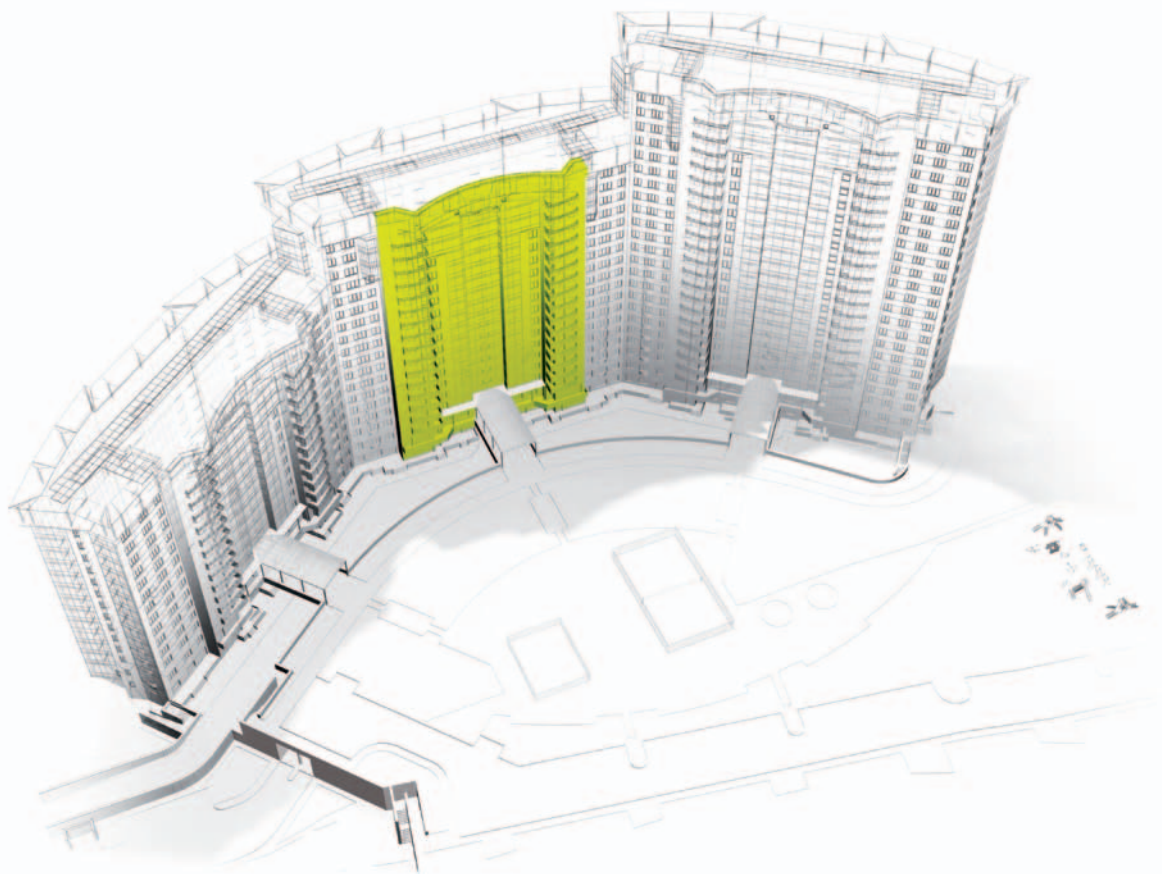


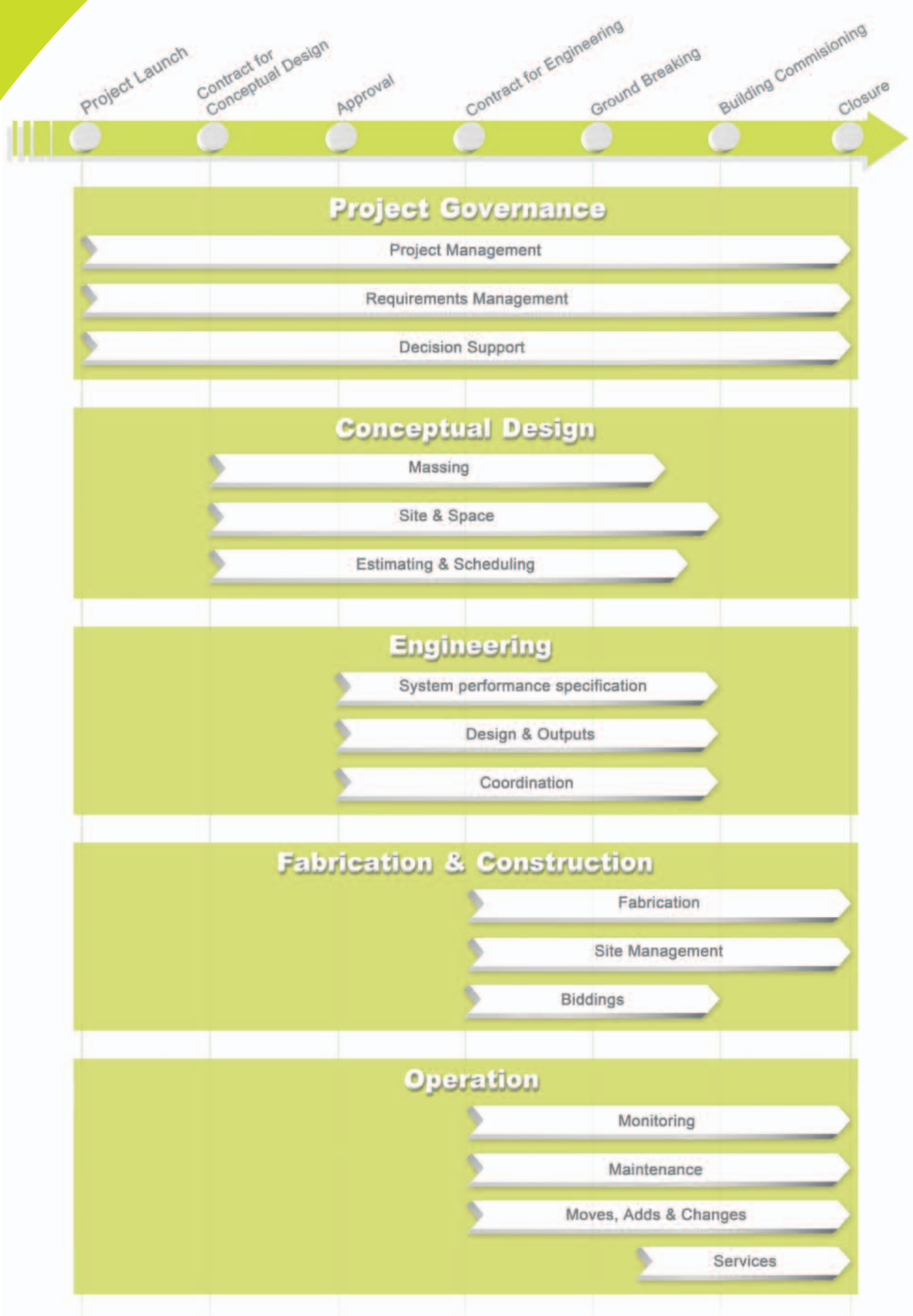
BUILDING LIFECYCLE MANAGEMENT

Creating a Sustainable Built Environment



Dassault Systèmes' Values for the Construction Industry

To maintain their competitive advantage and meet the critical challenges they face, Construction companies must implement the proper business process transformation.

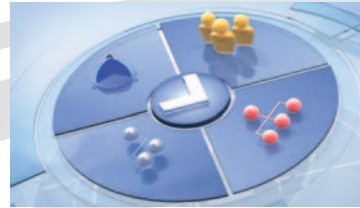


The Future of The Construction Industry

The design of green buildings has become a major international trend in the past ten years. Buildings consume 70% of our electricity and produce 65% of our waste. At the same time, they use 12% of our water and generate 30% of all greenhouse gases. More than transportation or any other sector the construction industry can contribute to better management of limited resources. Simulation and better resource management are the keys to success in sustainable design. Soon regulations will require proof of better performance. Dassault Systems has promoted product life cycle management (PLM) for a wide range of players in the manufacturing industry. Recently PLM applications have been used for nuclear power plants, and in large-scale structures like ships. The construction industry has seen a steady decline in productivity over the past forty years, while the manufacturing industry has more than doubled its productivity during the same period. New contract structures are now emerging to drive better performance. In design-build contracts, builders hire and manage the design and engineering teams. In design-build-operate contracts, builders own and operate buildings throughout their entire lifecycle. As the control of projects shift, so too will integration across the supply chain. Now more than ever, well integrated and accessible tools will be expected by players in the construction industry.



Project Governance



ENOVIA V6

is the gold standard for PLM in the manufacturing world and now solutions for "Building Lifecycle Management" are available. This enterprise solution integrates a wide variety of existing applications for comprehensive knowledge management.

Conceptual Design



DraftSight™

is a professional-grade, open 2D CAD product for users who want a better way to create, edit and view DWG files. DraftSight is easy to use and is available for professional CAD users, students and educators to download and activate for free* at DraftSight.com.

*Standalone license. Activation required.

Fabrication & Construction

Collaboration Gehry Technologies and Dassault Systemes

Gehry Technologies combined PLM's 3D design and management capabilities with project experience gained by using Dassault Systemes' 3D solutions over the years to create Digital Project, a CATIA-based building information modeling (BIM) system. A platform which combines Dassault Systemes' solutions and dedicated software developed by Gehry Technologies specifically for building industry systems, Digital Project generates a single digital model, which can be accessed and modified by all teams participating in the same building projects.

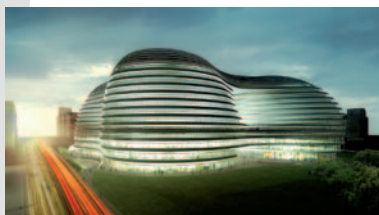
Digital Project™ Products

Gehry Technologies' Digital Project™ is a suite of powerful 3D building information modeling and management tools based on the power of Dassault Systemes' CATIA - a comprehensive design and manufacturing platform. Digital Project uses CATIA as its core engine. The Digital Project suite of products includes two base products, Viewer and Designer, and several add-on products: Primavera Integration, MEP/Systems Routing, Imagine & Shape, Knowledgware, Specialized Translators and Photo Studio. Base products, Designer and Viewer, may be used as stand-alone products; Viewer or Designer is required for all add-on products.

Digital Project™ supports the development of a comprehensive project database in a contractually controlled fashion, allowing teams to realize the full benefits of building information modeling. This includes:

- Greatly facilitated visibility through project leadership into the project status, and information developed by the extended building team,
- Cost estimating with accuracy and confidence,
- Integration of financial and other project management data with project geometry,
- Dramatic reduction of errors, omissions, and rework in the field,
- Up to date coordination and delivery of project data team-wide,
- Integration between AE documentation and fabrication or construction activities,
- Reduced "transaction costs" (e.g. paper printing and re-work).

Behind Digital Project is the advanced CATIA V5 geometry and information management engine provided by Dassault Systèmes, that has revolutionized the automotive, aerospace and product manufacturing industries. The V5 product family includes 300 products developed by Dassault Systèmes and 3rd party partners. Digital Project products are specifically targeted toward building design, engineering and construction professionals.

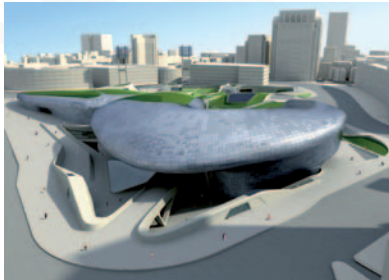


Images courtesy of Zaha Hadid Architects

Gehry Technologies and CATIA have a decade of experience in managing complex projects from early design through to construction. These solutions integrate well with standard industry software solutions. Design, visualization, documentation, scheduling, estimating, project management, and clash detection are all part of this comprehensive offering.

Engineering

Operation



Seoul Dongdaemun Design Plaza
Images courtesy of Zaha Hadid Architects

ZAHA HADID ARCHITECTS

Designing a vision

Zaha Hadid Architects is a London-based firm of more than 300 professionals that pushes the boundaries of architecture and urban design. The firm's work experiments with spatial quality, extending and intensifying existing cities and landscapes in the pursuit of a visionary aesthetic on a huge and complex scale.

Revolutionary facades and the use of glass, steel and composites in entirely new structural ways require unique processes and special methodologies. Functional, environmental and sustainable aspects of the buildings are equally complex with novel designs that must accord with practical and planning needs as well as providing significant visual and emotional responses

Vision into practice

Taking these designs through to project delivery is a significant challenge. As building designs develop, a multitude of designers, contractors, engineers, planners, clients, project managers, fabricators, and other stakeholders need availability to, and interaction with, accurate current project status in 2 and 3D formats to suit their needs.

Building a methodology

To handle this level of complex diversity, Zaha Hadid Architects deploys Gehry Technologies Digital Project (DP). Digital Project is a 3D Building Information Modelling (BIM) system developed by Dassault Systèmes' partner Gehry Technologies, a BIM consultancy, software and services firm.

DP uses CATIA as a core engine. Currently, more than ten major schemes are being developed at the firm using DP. These include the 340,000 square meter Soho Galaxy mixed office and retail site in Beijing and the radical 85,000 square meter Seoul Dongdaemun Design Plaza that includes a museum, library and educational facilities.

“



CATIA-based Digital Project from Gehry Technologies allows us to tackle projects better, faster and in more detail to explore a greater range of solutions.

As the central 3D design visualisation tool of our practice, Digital Project enhances the creative process while applying a strong technical and commercial foundation.

”

Cristiano Ceccato,
Associate
Zaha Hadid Architects

Dassault Systèmes

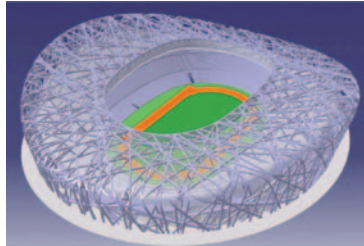
Tel.: +33 1 61 62 61 62

10 rue Marcel Dassault

CS 40501

78946 Velizy Villacoublay Cedex

FRANCE



Images courtesy of Arup

The 2008 Olympic Games Beijing Bird's Nest Stadium

Arup is a global firm of designers, engineers, planners and business consultants producing outstanding solutions in the architecture, engineering, and construction (AEC) industry characterized by innovation and value. This impact is best exemplified at Arup Sport which is at the leading edge of worldwide sports venue design. The company continues to deliver award-winning spaces for the world's top sporting events including the 2008 Olympic Games in Beijing, the Asian and Commonwealth games, the FIFA World Cup as well as developing the colour-changing Allianz Arena in Munich with Herzog & de Meuron, and stadiums in Valencia, Manchester, Qatar, the Ukraine and beyond. Arup uses Dassault Systèmes CATIA and Gehry Technologies Digital Project (DP) solutions.

Buildings In Life



Discover the Dassault Systèmes Solutions for Construction

<http://www.3ds.com/construction>

Enjoy your trip with Dassault Systèmes Construction community

<https://iam.3ds.com/service/social/index.php>



See What You Mean