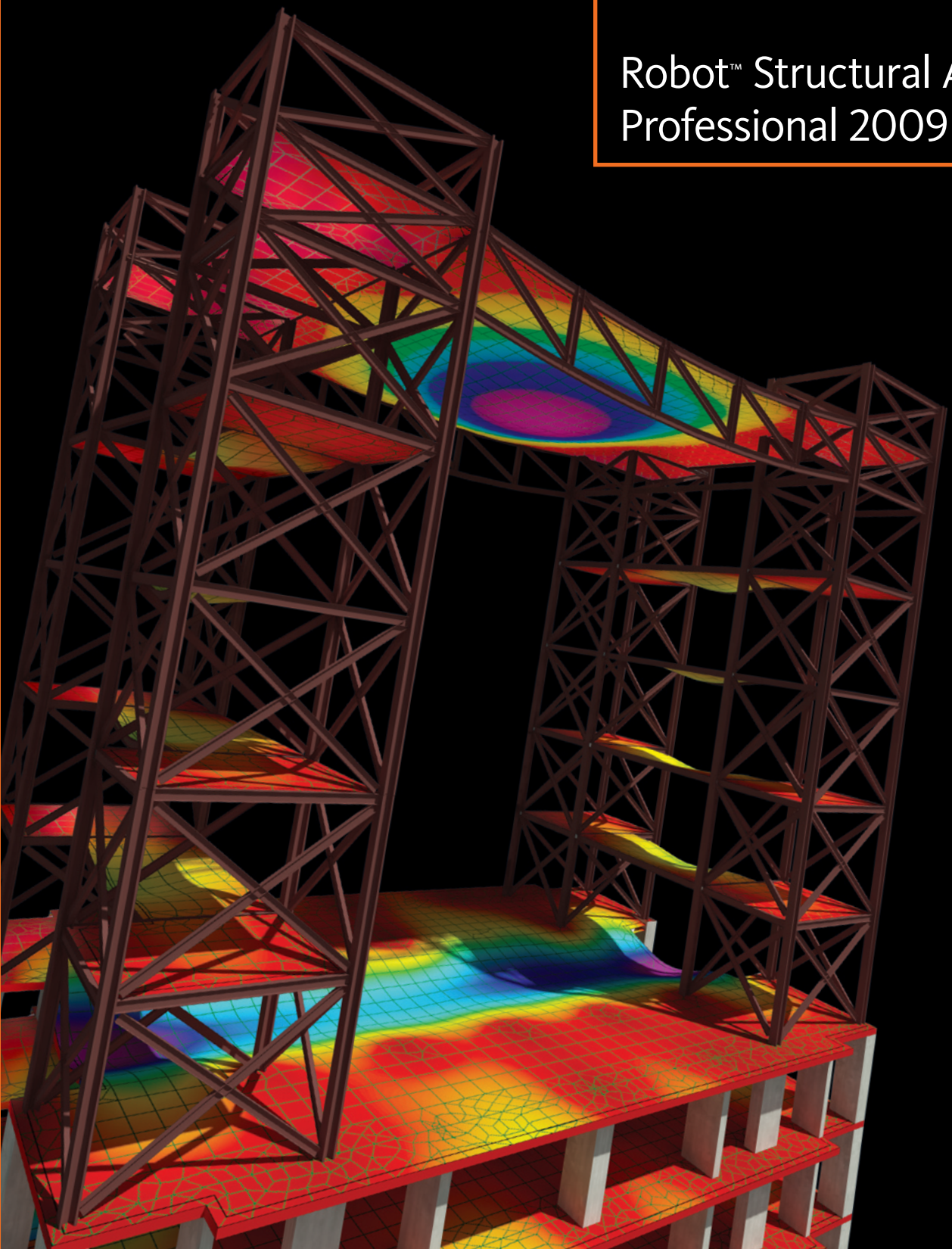
Welcome to the new millenium

Autodesk®

Robot™ Structural Analysis Professional 2009



Autodesk

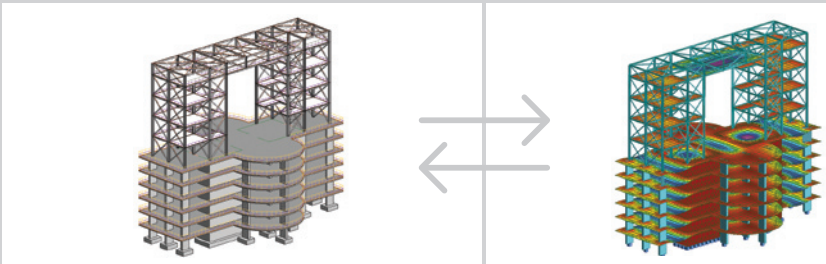
Enhanced Collaboration and Workflow Made Easy

Autodesk® Robot™ Structural Analysis Professional 2009 complements Building Information Modeling (BIM) with coordinated digital analysis and design.

Autodesk Robot Structural Analysis Professional 2009 is collaborative, versatile, and fast software to help you compete and win in the global economy. Through building information modeling (BIM), Autodesk Robot Structural Analysis Professional can calculate complex models with exceptionally powerful finite element auto-meshing, non-linear algorithms, and a comprehensive collection of design codes, delivering results in minutes, not hours. Autodesk Robot Structural Analysis Professional offers seamless, collaborative workflow and interoperability with 3D bidirectional links to Autodesk companion products. The open application programming interface (API) provides a scalable, country-specific analysis solution for a range of structures. These include but are not limited to buildings, bridges, civil and specialty structures.

Seamless Bidirectional Links with Revit® Structure 2009

Experience the powerful bidirectional integration of Autodesk Robot Structural Analysis Professional software and Revit® Structure software. Seamlessly import and export structural models between the two applications by using Revit® Extensions for Revit Structure 2009. Bidirectional linking enables structural analysis and design results to be updated throughout the building information model for coordinated construction documentation.

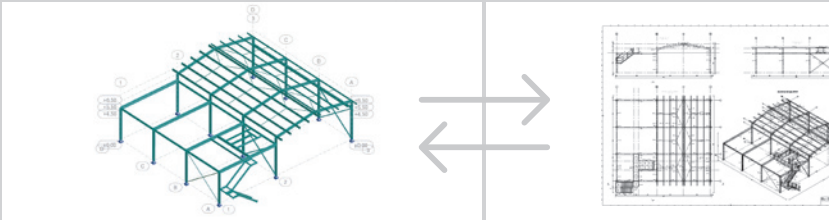


Modeling in Revit Structure

Structural analysis in Robot Structural Analysis

From Analysis to Fabrication Drawings

Structural engineers using Autodesk Robot Structural Analysis Professional can benefit from the ability to seamlessly transfer select design data to AutoCAD® Structural Detailing 2009 software, providing an integrated workflow from analysis through design, to final project documentation and structural drawings.



Structural analysis in Robot Structural Analysis

Shopdrawings created with AutoCAD Structural Detailing

Robot Extensions for Autodesk Robot Structural Analysis Software—Exclusive Subscription Benefit

As an exclusive subscription benefit, Robot Extensions for Autodesk Robot Structural Analysis 2009 and Autodesk Robot Structural Analysis Professional 2009 extend the capabilities of Autodesk structural analysis tools, providing structural engineers with even more flexibility to achieve their results. One particular extension, the spreadsheet calculator, enables the engineer to link analysis results into customizable spreadsheets for postprocessing. Users can integrate existing spreadsheets into this environment or create new engineering applications. Simple tools are available that allow the user to extract a large range of data from Autodesk Robot Structural Analysis Professional 2009, and no special programming experience is required.

Fast Simulation and Calculations of Complex Structures

Autodesk® Robot™ Structural Analysis Professional is a powerful analysis software application with excellent finite element auto-meshing capabilities to deliver fast and more accurate results.

We're very pleased with Autodesk Robot Structural Analysis Professional that combines powerful advanced analysis capabilities with the multimaterial design expertise in one structural software package. Without a doubt, this solution helps us better respond to our clients' challenges and also stay more competitive.

—David Monti
Principal, Structural Engineer
GP Structures

Modeling, Analysis, and Design of Buildings

Autodesk Robot Structural Analysis Professional can analyze a wide range of structures, but includes an intuitive user interface specifically created for the modeling, analysis, and design of buildings. The building design layout includes floor plane views to easily create columns and generate beam framing layouts. Engineers can use tools to efficiently add, copy, remove, and edit geometry for similar building stories.

Advanced Auto-meshing and Modeling Capabilities

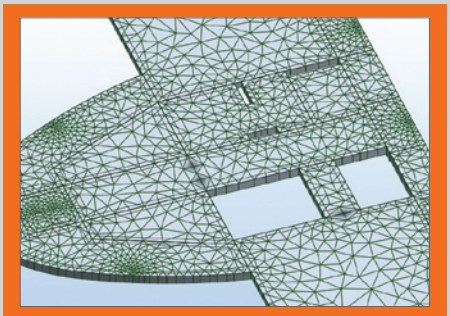
Autodesk Robot Structural Analysis Professional is a robust structural analysis software application with powerful mesh generation techniques that enable a structural engineer to effortlessly work with even the most complex models. Automatic mesh definition tools allow for manual manipulation of the mesh, refinement, and meshing around openings of various shapes and sizes. The many meshing tools available provide the structural engineer with the ability to quickly create a high-quality finite element mesh on virtually any shape of structure and consequently to help improve the accuracy of the analysis results.

Wide Range of Analysis Capabilities

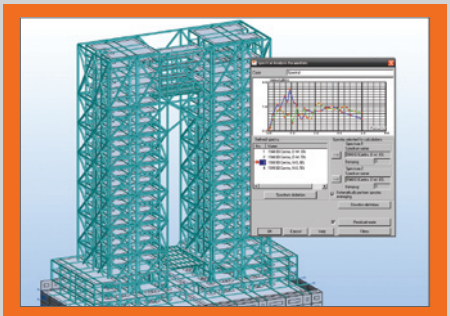
While Autodesk Robot Structural Analysis Professional is a powerful, easy, and efficient tool for general linear static analysis, it also equips structural engineers with the ability to go beyond the traditional analysis capabilities of other software programs. Engineers can explore different design alternatives and investigate the linear and true nonlinear behavior of a structure. The software allows the simple and effective analysis of many different types of nonlinearity, including P-delta analysis, tension/compression members and supports, cables, and plastic hinges, just to name a few. Autodesk Robot Structural Analysis Professional provides market-leading tools for the dynamic analysis of structures, and well-developed fast dynamic solvers ensure that dynamic analysis can be easily carried out for a broad range of structures.

State-of-the-art Analysis Solvers

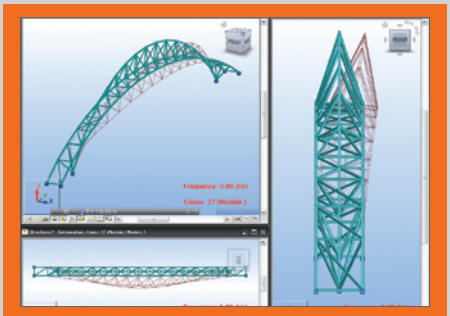
Autodesk Robot Structural Analysis Professional includes various state-of-the-art "solvers" to deliver fast processing of even large structural models. These analysis algorithms are based on advanced and modern technology and help the engineer to deliver accurate results in minutes versus hours, thereby allowing the engineer to easily optimize and re-analyze the structure and explore different structural configurations.



Advanced Auto-meshing and Modeling Capabilities



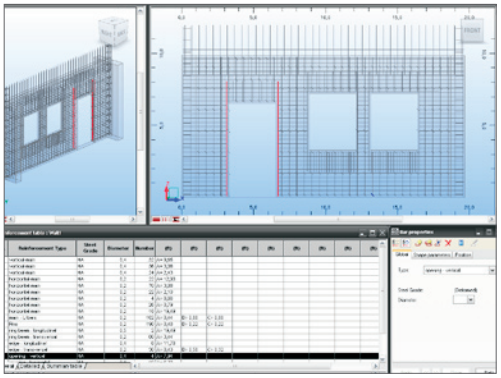
Wide Range of Analysis Capabilities



State-of-the-art Analysis Solvers

Excellent Versatility and Region-Free Analysis

Autodesk® Robot™ Structural Analysis Professional is a comprehensive global analysis software application with an open API delivering flexibility to analyze and design a broad range of structures.



Integrated Design Solution for Reinforced Concrete and Steel

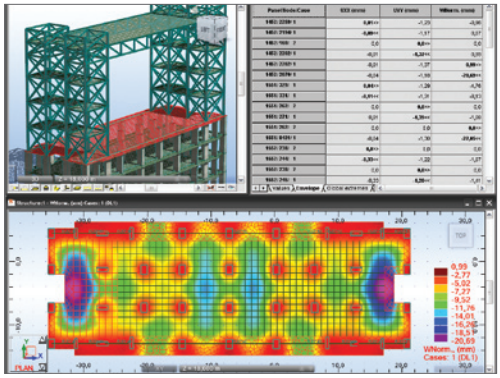
Autodesk Robot Structural Analysis Professional software contains integrated reinforced concrete and steel design modules based on more than 40 international steel codes and 30 reinforced concrete codes, simplifying the design process and assisting engineers with selecting and verifying structural elements.

International Design Codes

Autodesk Robot Structural Analysis Professional includes more than 60 sections and materials databases from around the world, enabling international projects to be completed with ease. With an array of 70 built-in design codes for different countries, structural engineers can work with country-specific section shapes, imperial or metric units, and country-specific building codes within the same integrated model.

Multilingual for Global Markets

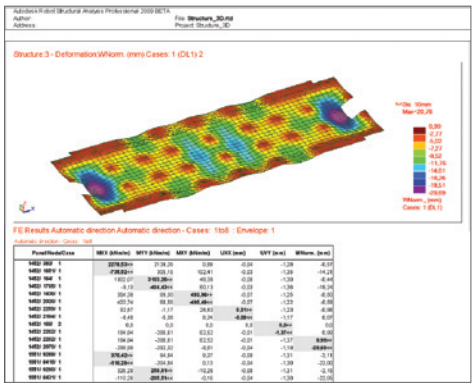
Compete in the global market with Autodesk Robot Structural Analysis Professional. The software supports multinational design teams by providing many languages including English, French, Romanian, Spanish, Russian, Polish, Chinese, and Japanese. Structural analysis can be performed in one language and output can be generated in another, providing versatility amongst global teams. Imperial and metric units can be used in combination within the same structural model, providing adaptability to varying environments.

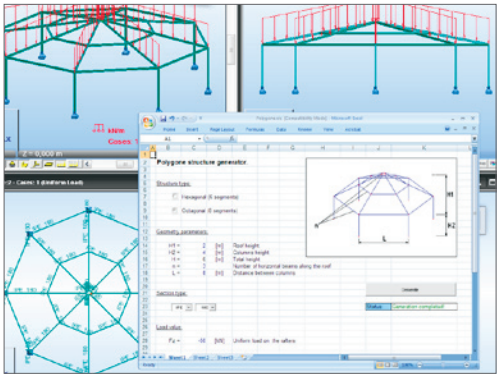


Extensive Output of Analysis Results

Autodesk Robot Structural Analysis Professional provides wide flexibility in obtaining analysis results. Results may be viewed on individual members, parts of the structure, or for the structure as a whole in the forms of diagrams and maps. Tabular results may be easily filtered to show specific data and easily output to spreadsheets for user postprocessing of data.

The printout composition feature provides the ability to save tables and model views in a user-defined layout. Results and maps saved in this layout are automatically refreshed after model changes. Printouts can be made directly from printout composition or can be presented in Microsoft® Word editor HTML format.

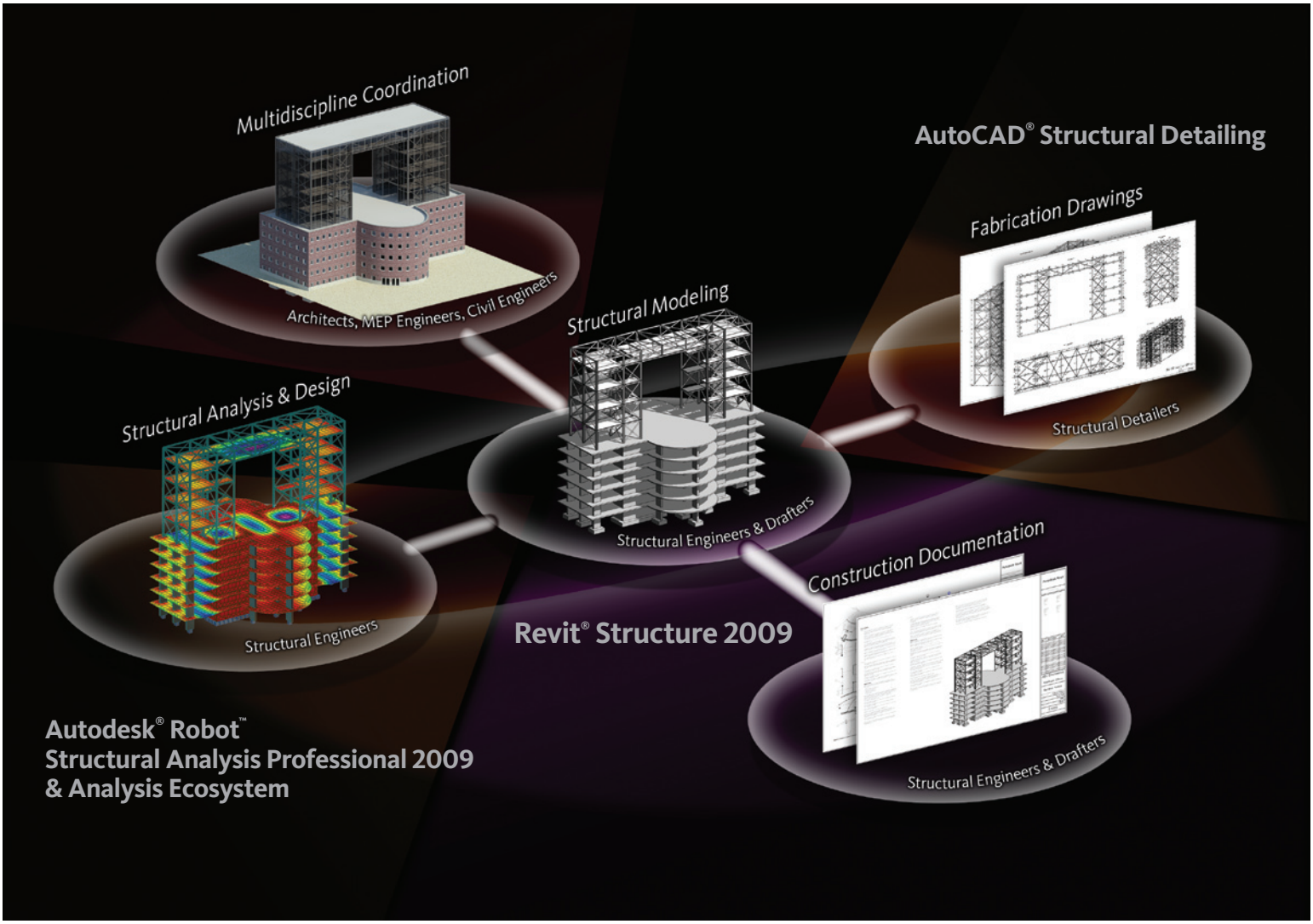




Extending Capabilities with an Open Application Programming Interface (API)

The concept of linking applications together to provide a single solution is not new, but few solutions offer a practical approach like Autodesk Robot Structural Analysis Professional. This program utilizes component object model (COM) technology as introduced by Microsoft, allowing the solution to be open architecture and openly programmable by any engineer. The open and flexible API offers an extensive list of possibilities, including integrating Autodesk Robot Structural Analysis Professional software with external programs such as Microsoft Excel, Microsoft Word, and AutoCAD® software; extracting results from Autodesk Robot Structural Analysis Professional; writing postprocessing software, such as special codified analysis for steel, concrete, timber, and aluminum; and the ability to create parametric structures in Autodesk Robot Structural Analysis Professional software.

Building Information Modeling for Structural Engineering



Building information modeling (BIM) is an integrated process built on coordinated, reliable information about a project from design through construction and into operations. By adopting BIM, architects, engineers, contractors, and owners can easily create coordinated, digital design information and documentation; use that information to accurately visualize, simulate, and analyze performance, appearance, and cost; and reliably deliver the project faster, more economically, and with reduced environmental impact.

BIM for structural engineers follows this same methodology for the entire structural engineering process, focusing on a digital model that can be used for coordination with architects, MEP engineers, and civil engineers that is integrated with analysis, design, and construction documentation, and extending that digital model from design through fabrication and construction.

Autodesk Solutions for Structural Engineering

Autodesk solutions for structural engineering include tools for many aspects of the structural engineering process, including modeling, coordination, analysis, and design documentation, as well as shop drawings and fabrication.

Revit Structure

Revit Structure software integrates multimaterial physical and analytical models, providing concurrent structural modeling for more efficient, more accurate documentation, as well as tight integration for analysis and design.

Autodesk Robot Structural Analysis Professional

Autodesk Robot Structural Analysis Professional 2009 is a collaborative, versatile, and fast structural analysis and design software application that incorporates BIM, allowing engineers to seamlessly analyze a wide variety of structures.

AutoCAD Structural Detailing

AutoCAD Structural Detailing is a powerful solution for fast and more efficient detailing and creation of fabrication shop drawings for reinforced concrete and steel structures.

We've been using Robot Millennium software for more than ten years because of its analysis performance as well as its design versatility for reinforced concrete, steel, and wood structures. We're looking forward to move to Autodesk Robot Structural Analysis software and be even more productive and competitive.

— Grzegorz Bałd
Vice President and Technical Director
BIPROSTAL SA
Engineering and Consulting—Poland

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