



**AUTODESK®
REVIT®**

**AUTODESK REVIT FOR
ARCHITECTS
AND INTERIOR DESIGNERS
WORKSHOP**

Computer aided design and drafting
software – Built for Building Information
Modeling

IMAGINE - CREATE



AUTODESK[®]
REVIT[®]

INTRODUCTION: Revit BIM software includes features for architectural design, MEP and structural engineering, and construction. Revit supports a multidiscipline, collaborative design process.

Accuracy Highly accurate drafting which is needed to design, prototype, analyze, and print and publish almost anything

Versatile. Easy to learn and use and catering to a variety of designers and engineers

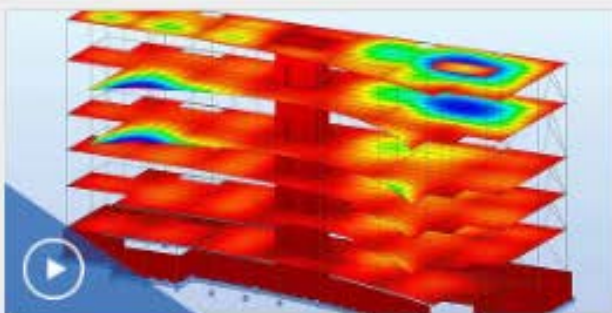
Fast, even on an ordinary laptop computer. No special hardware is needed.

FEATURES OF REVIT



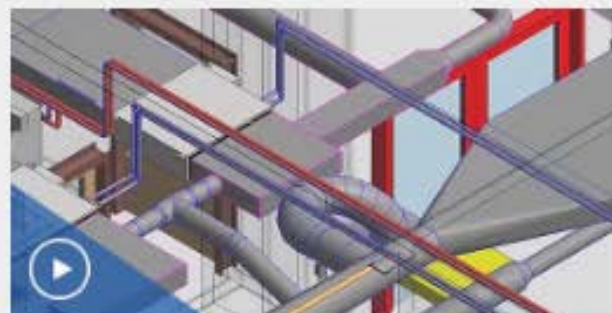
Tools for architects

Take an idea from conceptual design to construction documentation within a single software environment. Optimize building performance and create stunning visualizations.



Tools for structural engineers

Use tools specific to structural design to create intelligent structure models in coordination with other building components. Evaluate how well they conform to building and safety regulations.



Tools for MEP engineers

Design MEP building systems with greater accuracy and in better coordination with architectural and structural components, using the coordinated and consistent information in the intelligent model.



Tools for construction professionals

Evaluate constructability and design intent before construction begins. Gain a better understanding of the means, methods, and materials, and how they all come together.

Why Revit?

Design

Model building components, analyze and simulate systems and structures, and iterate designs. Generate documentation from Revit models.

Interoperability

Work with members of an extended project team. Revit imports, exports, and links your data with commonly used formats, including IFC, DWG™, and DGN.

Collaborate

Multiple project contributors can access centrally shared models. This results in better coordination, which helps reduce clashes and rework.

Visualize

Communicate design intent more effectively to project owners and team members by using models to create high-impact 3D visuals.

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Architectural design

Conceptual design tools

Sketch and create freeform models and create massing studies.

Analysis with Insight

Optimize building performance with centralized access to performance data and advanced analysis engines.

Architectural modeling

Add architectural elements to the building model, including walls, doors, windows, and components.

Point cloud tools

Connect laser scans directly to the BIM process to author an as-built model.

3D design visualization

Explore, validate, and communicate designs. Render more quickly and accurately with Autodesk Raytracer rendering engine.

Multistory stairs

Quickly create and modify multistory buildings by connecting stairs to the levels in your project.

Cloud rendering

Produce photorealistic visualizations without tying up your desktop or using special rendering hardware.

Structural engineering and fabrication

Physical and analytical model

Create a physical model for coordination and documentation, and an associated analytical model for structural analysis.

Reinforcement detailing

Create 3D reinforcement designs for cast-in-place and precast concrete structures. Produce reinforcement shop drawing documentation with rebar schedules.

Structural steel modeling

Model connections with a higher level of detail using a variety of parametric steel connections in Revit or by creating your own custom steel connections.

Structural documentation

Create an accurate and detailed structural documentation of multimaterial designs.

Bidirectional linking with analysis

Integrate analysis results into the BIM process and work in an iterative design workflow.

Linking with structural fabrication

Interoperability between Revit and Advance Steel helps provide a seamless BIM workflow from steel design to fabrication.

Dynamo for structural engineering

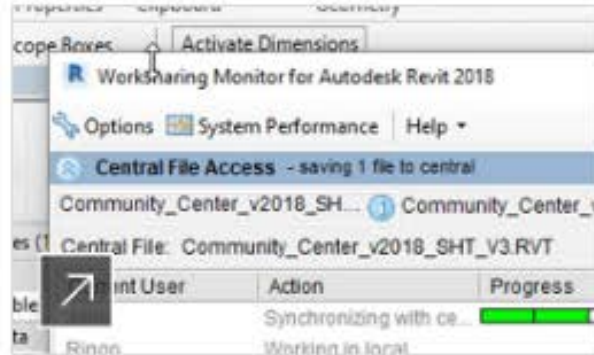
Dynamo gives structural engineers tools to develop optimized structural systems using computational logic.

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Parametric components

An open, graphical system for design and form-making, and the basis for all building components designed in Revit.



Worksharing

Contributors from multiple disciplines can share and save their work to the same centrally shared file.



Schedules

Create a tabular display of model information extracted from the properties of the elements in a project.



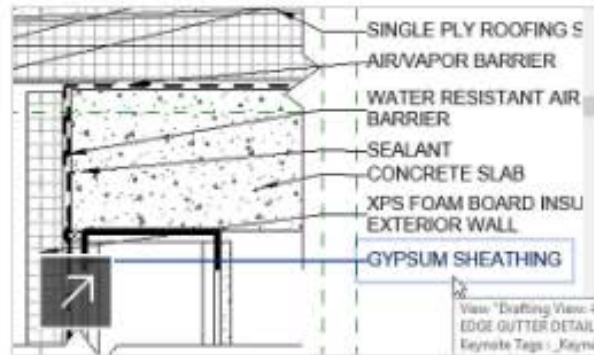
Interoperability and IFC

Revit imports, exports, and links your data with commonly used formats, including IFC4.



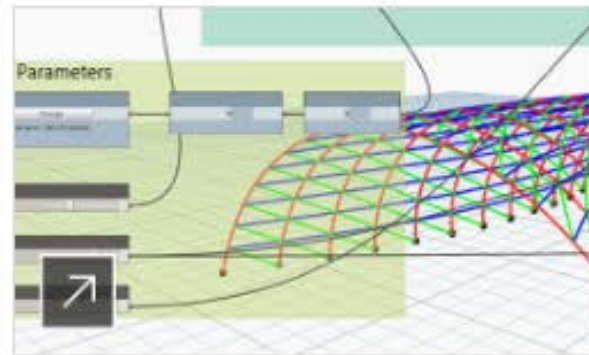
Add-ins

Extend Revit functionality with API access, add-ins, and a content library on the Autodesk App Store.



Annotation

Communicate designs more effectively with WYSIWYG editing and features that let you control text appearance.



Dynamo for Revit

Expand and optimize BIM workflows with an open-source graphical programming interface that installs with Revit.



Global parameters

Embed design intent with projectwide parameters that work with radial and diameter dimensions and equality constraints.

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MEP engineering and fabrication

HVAC design and documentation

Design complex duct and pipe systems to express intent, and model duct and pipe systems with mechanical design content.

Electrical design and documentation

Design, model, and document electrical systems. Keep track of electrical loads throughout the distribution system.

Plumbing design and documentation

Create sanitary plumbing systems with sloped piping and layout piping systems to design and document intent.

MEP fabrication detailing

Create fabrication-ready models in Revit. You can model and coordinate MEP LOD 400 components.

Insight integration

Insight lets you optimize building performance with centralized access to performance data and advanced analysis engines.

Fabrication service conversion

Use the Design to Fabrication tool to convert design-level model elements to construction level-of-detail elements.

Fabrication documentation

Document model layout more effectively. Document, schedule, and tag fabrication elements.

Construction

Construction modeling

Derive construction insight from design models. Split and manipulate wall layers and concrete pours, and prepare shop drawings for fabrication.

Construction coordination

Upload Revit models into BIM 360 Glue and sync with BIM 360 Layout. View and share point sets in the BIM 360 Glue web interface or the BIM 360 Layout iPad app.

Navisworks interoperability

Open a Navisworks coordination model directly in Revit to coordinate your design with the work of teams who use different software.

Import/Export 2D sheets

Bring AutoCAD files in or out of Revit, and prepare sheet sets for export to fabricators, subcontractors, or other project stakeholders in the format they need.

Constructability details

Augment design intent models with the detail necessary to meet the requirements of construction teams.

Fabrication for structural engineering

Link to Advance Steel for steel detailing and fabrication to help accelerate design-to-steel construction.

Fabrication for MEP engineering

Convert design level-of-detail model elements to fabrication level-of-detail elements for detailed coordination, fabrication, and installation.