Generative Design
New in Revit 2021

“As an architect who uses Revit but is not a skilled computational designer, I want to perform generative studies so that I can evaluate better performing design alternatives.”

“It will be a huge time saver to generate and evaluate options so quickly”
AU Idea Exchange Participant

“This will automate repetitive work and create better designs”
AU Idea Exchange Participant

Revit help: About Generative Design
Benefits of Generative Design

- Designers can generate options using the power of computation.
- Explore the full range of options while focusing on the higher performing solutions.
- Gain more insight into your designs by studying the relationships between inputs and results at scale.
- Make more informed decisions in less time by leveraging what is learned in each study.

Video: Introduction to Generative Design
Create a Study

Learn from included sample content

Create custom studies

Create and explore generative studies directly from Revit*

* For AEC Collection and enterprise subscribers
Define the Study

* For AEC Collection and enterprise subscribers

Select Revit elements to use in the study*

Set design goals

Generate design alternatives

Revit help: About Generation Methods
Explore Outcomes

Track studies

Filter and rank results

Explore outcomes

Evaluate goals

Create Revit elements*

* For AEC Collection and enterprise subscribers
Installation and Licensing

Generative Design is
• automatically installed with Revit
• updated via Autodesk desktop app and Revit updates
• available in the 14 languages supported by Revit

For AEC Collection and enterprise subscribers, the Generative Design license enables direct access from Revit*

* If you are not an AEC Collection or enterprise subscriber, you can access similar functionality using Dynamo for Revit.
All users can access Generative Design from Dynamo for Revit

Export generative design scripts for use in Revit
Create Study
Explore Outcomes
Tweak samples or create new logic to solve unique design challenges

Revit help: Generative Design for the Dynamo Author
Export for Generative Design from Dynamo for Revit

From Dynamo, export new or updated scripts for use with Generative Design in Revit

- Provide a description and preview image
- Automatic dependency handling
- Export script for use in generative design studies

Revit help: [Add a Study Type](#)
Dynamo access to Create and Define Study

Same experience as from Revit

EXCEPT no direct selection of Revit elements from UI

Revit help:
Workflow: Generative Design
Dynamo access to Explore Outcomes

Same Explore experience as from Revit

EXCEPT no creation of Revit elements from UI - Open in Dynamo instead
## Summary of Generative Design features by license

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<td>Select Revit elements via Generative Design interface</td>
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Generative Design Learning Content

Revit Help

Add a Study Type

From Dynamo, you can make more study types for use with Revit generative design.

To add study types to the Create Study dialog in Revit:

1. Use Dynamo for Revit to create and test the graph.
2. In Dynamo for Revit, click Generative Design > Export for Generative Design.
3. Click Export.
4. Click OK.
5. Share the study type with team members.